Reva Potter and Dorothy Fuller

My New Teaching Partner? Using the Grammar Checker in Writing Instruction

Seventh-grade English teacher Reva Potter and education professor Dorothy Fuller collaborate on a study that shows that using computer grammar checkers may improve students' confidence and their understanding of key grammatical concepts.

Someone else is teaching my (Reva's) students grammar terminology, usage, and mechanics. Actually, some*thing* else is teaching my students grammar, and although I do not always agree with this teacher, I have decided to embrace it. It is tireless, relentless, and follows my students from one composition to another on their computers. My new teaching partner is the word processor's grammar checker.

The grammar checker does not intimidate me or make me fear for my job as an English teacher; in fact, it makes me realize that in today's electronic writing environments, the students need me more than ever. For instance, my students need someone to explain why the powerful grammar checker does not correct such sentences as "*Little Women* were a great book," or "The cows or the pig find the grass." I have discovered that my students can learn from the grammar checker, but not without my guidance.

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Grammar at Our Fingertips

Even for those who are not language arts teachers, grammar instruction is difficult to avoid. As universal as a blinking cursor, it is waiting on our laptop, home, school, and workplace computers. Young and old alike, cautiously or carelessly, we are all tutored by the word processor's grammar checker.

The grammar checker slipped quietly into our classrooms, allowing students to make improvements to their documents without the over-the-shoulder assistance of the teacher. The word processor is one of the most common applications used, yet language arts teachers may not address the issues associated with grammar-check software. They may also overlook the capability of this omnipresent tool to teach grammar in a relevant and engaging way.

Research on word processing grammar checkers is limited but provides insights about the capabilities and concerns related to the use of grammar checkers in the classroom. Research suggests three main ideas: teachers should approach grammar checkers critically; students have limited competency with the grammar tools; and classroom instruction can incorporate use of the grammar checker (Jensen; McGee and Ericsson; Vernon).

First and foremost, teachers must look at grammar-check programs thoughtfully. As Tim McGee and Patricia Ericsson so aptly put it, "Mindlessly accepting a piece of software is irresponsible—even if everyone in the world is using it, even if we can't really change it, even if we're afraid of breaking it" (465). Before teachers ask students to use the software critically, they must be critical themselves. Teachers should carefully consider the use of the grammar checker due to its sophisticated and yet sometimes flawed recommendations to writers. For instance, in an examination of the performance of WordPerfect and Word grammar checkers with 36 common grammatical errors, Alex Vernon found that the WordPerfect checker correctly identified 17 of the errors and the Word checker found 12 (340). Teachers need to be aware of the limited feedback the grammar checker provides to their students.

Grammar checkers do not claim to teach grammar; they are tools to bring potential problems to the writer's attention. They also offer only

formal and Standard English preferences, limiting the freer expression of some literary forms. Without guidance, students may misuse the checker, become frustrated, and feel discouraged. Users must be perceptive about accepting and rejecting the recommendations, and students of writing who currently use the grammar checker may not have the critical knowledge to do this (McGee and Ericsson 461).

Possibilities exist for the use of grammar checkers in the writing classroom. Vernon recommends teaching the checker's limitations and how students might work with these (336), including activities where learners respond to grammar-check recommendations in small groups, make corrections on highlighted errors without the help of computer suggestions, create sentences to trigger the grammar checker or fool it, and compare rules in the grammar checker to rules in the grammar handbook (346). Jensen suggests that by using the grammar checker's readability statistics, students could also revise their written work, varying their sentence types and structures, to manipulate the grammar-check readability score of their documents (28).

Beginning Teacher Research with the Grammar Checker

My experiences with the advantages and frustrations of the grammar checker caused me to wonder if my students would benefit by using the tool more consciously. Initially, I brought grammar-check activities into my classroom to stimulate my students' curiosity for the tool. I also hoped their new knowledge would allow them to navigate the grammar checker independently and connect grammar rules and terms to electronic composition.

To gather evidence of the potential of the grammar checker as a learning tool, my mentor (and co-author) Dorothy and I designed an action research project on the use of the grammar checker in my classroom. Three main research questions guided this exploration: (1) When given direct instruction with the word-processing grammar checker, will students improve as critical, confident users of this tool? (2) When combining grammar instruction with grammar-check tools, will students improve their understanding of key grammar concepts? (3) Is the seventh-grade language arts curriculum a highly appropriate place for instruction with the grammar checker?

Working with Students to Make Choices about Grammar Curriculum

I introduced my seventh graders to the grammar checker by having them type their essays with grammar tools first deactivated. When we reactivated the grammar checker and the wavy green lines appeared, students clicked one error at a time to gather the names for all of the errors the checker disclosed. Students recorded the names of the errors in their documents, exactly as the errors were described. "Comma Use," "Fragment," and "Passive Sentences" were some common errors found by the students.

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Back in the classroom, students worked in small groups to compare their lists of errors and tally all the types. All class tallies were combined and recorded on the board, and after all three class periods had reported, the final tally was ready for the following day's discussion. The list included 50 different types of errors.

The next day in each class period, we discussed each error type listed. Each class chose the errors it found most interesting and wanted to know what every error meant. If I had had a full day to explain them all, I think the students would have stayed and listened. I pointed out that these grammar-check terms were the same as those in their language arts textbooks; in fact, most were part of the curriculum we would study.

So which error types did they want to study first? Many students suggested we study passive voice because they see it all the time when typing at a computer but did not know what it meant. I told them that choice was interesting because passive voice first appears in our standards in seventh grade, so it would be a great unit to choose. They also proposed to study comma use because it appeared so often in their documents. I explained that we could focus our comma study on compound and complex sentence structure, one common area of difficulty for both student and adult writers. For the final unit I persuaded students to study subject-verb agreement based on how difficult these errors can be for the grammar checker to detect. It is also one of those difficult areas for both adolescents and adults.

Connecting the Grammar Checker to Instruction

We designed the four-month action research study to include direct instruction of the grammar checker and regular grammar instruction enhanced with use of grammar-check tools. Students first learned about the checker, its components and purposes, before beginning the agreed-on three grammar topics. Once into the units, lessons incorporated grammar check in a number of ways. Students composed or typed essays with the grammar-check tools turned off and on; they wrote sentences to "trigger" grammar-check error identification; they compared terminology and rules of grammar from text resources with those on the computer checker; and they explored the readability statistics, which report sentence length and the grade level of their writing.

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A favorite activity for the seventh graders was typing the textbook "pretest" for the subject-verb agreement unit. Students then observed the grammar-check performance, reported their results, and hypothesized why the computer grammar checker may have missed or misdiagnosed an error. I realized this was a favorite activity when a student said, "That was cool. When do we do it again?" In subsequent units students eagerly typed their assigned "pretest" sentences, typed extra if they had time, and began hypothesizing at their individual computers about the accuracy of the grammar checker before the results were reported.

Another engaging use of the grammar check allowed students to personalize their grammar experience by creating original sentence examples to challenge the checker: practicing examples of active or passive voice, creating possible subject-verb agreement problems, and changing simple sentences to compound or complex. Students watched the computer screens as the checker "reacted" to the sentences they created, and they compared and discussed the checker's recommendations with their classmates.

Critical, Confident Users of the Grammar Checker

For the full cycle of the three grammar units with my writing classes, I not only taught but also observed and recorded the impact of this grammar-check incorporation. This research underscored the excitement I felt as grammar check entered my teaching. Classroom observation records, pre- and post-interviews, surveys, test data, and student essays revealed that my students became more familiar with the grammar checker, more confident in its uses, and more cautious about its limitations. This familiarity led to more student use and exploration of the tool, and it brought new decisions for students about how they would personally use the grammar checker when writing.

Students showed more confidence for understanding the grammar terminology used in the grammar checker after studying and using these terms

during composition. By May I had clear evidence of change in student behavior through increased use of the grammar-check explanations. At the start of the study, students using the computer for composition were likely to ignore a grammar-check explanation. By the end of the study, they more often than not opened and read the explanation. Student caution with grammar check increased in the research post-surveys, to the point that almost 75% of the students expressed skepticism about the accuracy of the checker.

Interviews also revealed that students became more confident with the use of grammar-check tools throughout the project. In the preinterview, half of the students found grammar terminology or suggestions confusing, while only three reported this confusion in the post-interview. In the post-interviews, students declared that they could teach others how to access and use the grammar checker, showing greater confidence in their understanding of the tool itself. Students also felt they were more likely to recognize instances of faulty recommendations by the checker: only two of the twenty-two interviewed students reported this before the instruction, while nine of the twenty-two found these types of problems in the checker at the end.

During the twice-weekly instruction in the computer lab during the units, students exhibited high interest in navigating the features of the checker and were eager to show classmates their discoveries. They also found ways to manipulate the settings and explored other capabilities such as readability statistics. To improve their grade level number, for instance, some students told classmates to make sentences longer by putting short sentences together. Students experimented with resetting the style tools from "Formal" to "Standard" levels to see how checker recommendations changed.

My students' year-end written reflections revealed deeper understanding and a critical perception of grammar check. One student wrote, "I learned that the computer isn't right for everything. I learned how to use the tools on the computer and how to be able to know what is right and what is wrong." These types of comments, weeks after the grammar had been studied in class, reassured me that the grammar experience would continue to influence student writing with the computer.

Students Make Connections to Key Grammar Concepts

The deliberate use of grammar check allowed for constant feedback about students' grammar choices via the computer. An essential component of formative assessment is the students' assessments of their strengths and weaknesses and control of their own learning (Black and William 7), and with the grammar checker students learned in a naturally inquiry-based and formative learning environment. It was not "the teacher told them" about concerns in their writing, but their own active analysis, using questioning and problem solving.

The students' word-processing experiences gave them more opportunities to use grammar technology to express observations about their writing. Explaining her experiences with grammar check during instruction with compound and complex sentence structure, one student noted, "The computer didn't pick up on the FAN-BOYS [a mnemonic device for the list of coordinating conjunctions] as it should have." During instruction with subject-verb agreement, one student noted that the checker "struggles with inverted word order and with compound subjects." For the first time in my experience as a teacher of middle school language arts, my students and I had a truly investigative discussion of writing style and passive voice. When my students confronted the term *passive voice* in a grammar-check of their own writing, they were able to go beyond the usual textbook study, analyze passive voice as a style error, evaluate the grammar check suggestions, and determine if their use of passive voice was appropriate.

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My students' standardized test scores showed strong improvement in grammar from beginning to end of the year, including some remarkable areas. For instance, when tested on use of semicolons in compound sentences, half of the grammar-check group responded correctly to these items compared to less than one-fifth of the students from the previous year's

group. Use of semicolons has been a difficult concept for my seventh graders, so this was a notable increase.

Seventh Grade Is an Excellent Time to Employ the Grammar Checker

When given a tool to make their lives easier, young people use it automatically. For instance, early in my research observations I noted that many students chose not to capitalize "I" while typing. The students were not choosing to make a spelling error; they were actively using the autocorrect feature of the grammar checker to save themselves time. They knew that as they typed, the checker would automatically correct the capitalization of "i." I knew then that although my students knew little about the capabilities and limitations of the grammar checker, they would absorb and utilize whatever I could show them.

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My seventh graders were eager to discover more about the grammar checker. These naturally inquisitive adolescents, critical of authority and status quo, found the limitations of the grammar checker intriguing. Academically, the students were ready for increased expectations in grammar terminology and abstract style choices. Empowered by experience with and understanding of the grammar checker, students took more control of the recommendations the computer offered for their written work. As one student noted, "If something is correct, but the computer says it's wrong, you can ignore it." Another student recommended to others "to always read what the computer thinks before deciding on what is correct for your own writing."

When the middle school principal visited my classes as they worked in the computer lab on subject-verb agreement, she noted, "As I observed students typing incorrect sentences, it was interesting to hear their comments as to how the grammar check is not always correct. This awareness is very valuable because most believe technology is always right. They appeared to understand why it is important for them to know the rules of grammar."

Overall, the use of the grammar checker took grammar beyond the textbook to the individual student's writing experience. As one student who strug-gled with the passive voice unit said, "I think that I can vaguely recognize it and fix it. At least if it shows up on the computer, I can say that I learned about it." This student, who had only studied this concept for one unit, was already looking to the future, knowing the concept would appear again in his writing.

Conclusion and Implications for Further Study

In my teaching partnership with the grammar checker, a technology tool so common that we forget it exists, I was able to help my students make more-informed choices about their writing. My students learned grammar as they will confront it throughout their futures: on their computers.

Helping students make good writing choices while using computer grammar tools gave my grammar instruction a stronger connection to the daily experiences of my students than I had previously experienced. Students became more skeptical about the omnipotence of the grammar checker. They were more engaged and more motivated to apply the learning of the specific grammar units. I found no evidence that direct teaching of the grammar checker was in any way detrimental, and I will continue to incorporate grammar check in my writing and grammar activities.

Exploration of the use of word-processing tools to improve and enhance writing instruction has generated other questions: How can writing workshop best include grammar-check instruction? Does emphasizing technology in writing detract from creative performance? What support do teachers of all disciplines need for effective use of word-processing tools in their classrooms? Should curriculum standards for language arts include word-processing technology? Will studying grammar in this way improve the quality of students' writing?

Students must be able to write effectively and use technology effectively, and their educational experience should provide instruction to meet both needs. Teaching with the technology tools for editing can enhance the writing and grammar instruction without requiring additional time for units of study. Employing the grammar checker as a partner in the classroom may highlight instructional gaps that teachers can fill while still meeting, and perhaps exceeding, the needs of the language arts curriculum. *EJ*

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READWRITETHINK CONNECTION   Lisa Storm Fink, RWT

One of the authors uses the grammar checker in her word-processing software after teaching minilessons to her students on topics such as subject-verb agreement, active and passive voice, and comma usage. "Choosing the Best Verb: An Active and Passive Voice Mini-Lesson" can be reviewed before using the computer's grammar checker. For most students, speech and informal writing flow naturally. When it comes to more formal writing, however, students frequently choose passive voice constructions because to them, the verbs sound more academic or more formal. This minilesson explores verb choice in a variety of online resources and then encourages students to draw conclusions about verb use that they can apply to their writing. http://www.readwritethink.org/lessons/lesson_view.asp?id=280