

# AI Programs Grading Student Essays

07.21.06

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Professors at colleges and universities across the country are giving their students an opportunity for academic advancement via a variety of Web-based essay grading programs.

SAGrader and MY Access! are among a handful of automated essay scoring programs that offer writing tips and feedback for students that want to improve their scholastic standing through a revision and re-writing process.

Ed Brent, a professor of sociology at the University of Missouri-Columbia, created SAGrader in a bid to examine the extent to which student essays meet the goals of any given assignment. Brent recruited 100 volunteers at schools across the country [including his own] to test his products' reliability.

"This program is slightly different than other essay-grading programs that focus on grammar," Brent told PCMag.com. "We look at whether students are discussing content correctly and to make sure the right concepts are linked together in the right way."

Brent designed SAGrader based on Qualrus, an earlier program that he created to analyze and manage qualitative data. It works by scanning essays for keywords, phrases, and terms selected by the instructor, and ensures the student has appropriately applied all content.

"Students copy and paste their writing into their Web browser and submit it to get detailed feedback indicating what they did right or wrong," Brent said. "They then have the option of revising their essay before submitting a final draft to the professor."

Brent carried out his own experiment to examine the efficiency and effectiveness of his program and found that most students improved their scores substantially.

"The process of rewriting their papers better helps students understand the material," Brent said in a statement.

Students can access the program online or through participating schools for a one-time fee of \$19.00 per student per course. The fee offers unlimited access to SAGrader, enabling students to rework and revise their papers to the point of perfection.

"Students like the program because they like the immediate advice and ability to rewrite the paper," Brent said. "It is also good for students who wait until the last minute to write their papers because they can get help late at night when their teacher is unavailable."

Students can opt to gather digital feedback from a range of other educational companies as well. Educational Testing Service (ETS) offers a software program that scores essays, while Pearson Education has made available what they call "knowledge analysis technologies." In addition, Vantage Learning offers a program called MY Access!, which was designed to improve students' overall writing proficiency. MY Access! offers "online writing practice with immediate diagnostic assessment, constructive feedback, and instructional assessment," according to the Web site.

"All of this is designed to have students be more proficient in writing, improve scores, and also allows the teacher to spend more time on focused instruction with students rather than scoring papers," said Harry Barfoot, vice president of Vantage Learning. "It's using technology in the 21st century classroom."

MY Access! analyzes student essay and offers feedback in five domains including focus and meaning, organization, content and development, language use and style, and mechanics and conventions. The program offers academic advice in multiple languages including English, Spanish, and Chinese. A Japanese version will be available in the near future.

"We combine Artificial Intelligence (AI) technology and natural language understanding concepts to train the engines to understand how to score accurately," Barfoot said. "Essay scoring itself is a small piece of the entire puzzle. It's all of the feedback and learning on top of that which is really the application itself."

Vantage says its technology was designed for use as an adjunct to the teacher, not a replacement. It also allows students to get feedback in real-time, rather than waiting a week for work to be graded by hand.

"Once a student gets a score we want them to go back and revise their writing," Barfoot said. "When kids get an instant score it's no different than playing a video game at home. If they get a low grade they want to improve the 'score' on their paper and with the feedback they can get to the 'next level'."