

AUTOMATED WRITING INSTRUCTION

*Computer-Assisted or Computer-Driven Pedagogies?***Beth Ann Rothermel**

Elsewhere in this collection William Condon (chapter 15) exposes the losses college writing programs may experience when employing machine scoring in the assessment process. Contrasting machine scoring with a host of other more “robust” forms of assessment, such as portfolio-based assessment, Condon reveals how machine scoring fails “to reach into the classroom;” using machine scoring for student and program assessment provides administrators and teachers with little of the necessary data they need to engage in effective internal evaluation. This essay examines another recent application of commercial machine scoring—its use with Web-based writing-instruction programs currently marketed to K–16 writing teachers.

I look at Vantage Learning’s new “writing development tool,” MY Access! which, like WritePlacer *Plus*, uses Vantage Learning’s general-purpose program IntelliMetric. Students employing MY Access! engage in online writing to specific prompts and then submit their writing for a grade; the program then provides students with immediate feedback on ways to improve as well as opportunities to rewrite and resubmit. All of the students’ work is maintained in a Web-based “portfolio” that may be reviewed by the instructor when assessing individual and class progress. In other words, MY Access! appears to take up where assessment programs such as WritePlacer *Plus* or e-rater leave off, reaching more directly into classrooms to shape the learning and teaching process.

Scholars writing for this collection have noted the extent to which companies developing computer-assisted writing assessment programs ignore, and even show disdain for, the perspectives of scholars and teachers in the field of rhetoric and composition. I would add that these companies show similar disdain for classroom teachers working at the primary and secondary levels. Much of the marketing produced by companies like Vantage Learning focuses on upper-level management. A literature search shows that advertisements and industry reviews of MY Access! appear frequently in journals for K–16 administrators. I first

learned about MY Access! when my college's academic dean asked me to review the program after he received e-mail promotional information sent out to colleges across the state. Marketing pitches made by the company are tailored to administrators' concerns about efficiency and reliability. In its online product sheet, Vantage Learning (2004d) asserts that MY Access! is "proven to be more consistent and reliable than expert human scorers." It is also "less expensive than traditional offline administration and handscoring."

Yet promotional materials are also finding their way into the inboxes of teachers, and these materials take more into account the interests and needs of classroom educators, particularly those teaching writing at the secondary level. A review of MY Access! materials on the Vantage Learning Web site shows the company playing on teachers' fears and anxieties over workload and student (hence institutional) success. But Vantage Learning also makes claims that appeal to the field's current investment in process-writing instruction and many a contemporary writing teacher's desire to create a student-centered, interactive learning environment. Drawing on terms and concepts associated with the process-writing movement, Vantage Learning (2004d) claims to encourage "improvement through a continuous, iterative process of writing and revising," thus empowering students and teachers.

A closer examination of the product as well as a review of current scholarship leads me to argue that the language with which Vantage Learning represents MY Access! masks a different ideology, one that defines not just writing, but also teaching and learning, as formulaic and asocial endeavors. I argue that rather than developing a space rich in dimension, conducive to complex interactions between students, teachers, and curriculum, MY Access! constricts and narrows the learning environment. Using the program in the way that it is intended to be used potentially disempowers teachers and limits student access to the multiple print and technological literacies they in fact need. Given the extent to which MY Access! is being marketed to secondary school teachers, I conclude by considering the implications such programs have not just for K-16 writing teachers, but for those charged with preparing preservice writing teachers for the schools.

The data on who and how many schools are actually employing MY Access! are sparse. In the promotional brochure I was first mailed, Vantage Learning (2003a) claimed to provide service to 17 million students per year.¹ Teacher comments along with various press releases on the Vantage Learning Web site suggest that most of these students are in

Pennsylvania and California, although several districts in Texas have also recently adopted the program. Many of those schools using the program appear to serve at-risk students. Vantage Learning has, in fact, touted its foundation's "dedicat[ion] to providing at-risk schools" "access" to the "same online reading and writing tools now used in more than 49 US states" (United States Distance Learning Association 2002). In one California class of English-language learners, MY Access! came to the students bundled with other software as part of Apple's mobile assessment cart project (a cart containing twenty-five Apple iBook computers that may be rolled into classes on demand) (Vantage Learning 2003a).

While a Vantage Learning representative informed me in 2004 that only one district in my home state of Massachusetts had adopted its program, promotional materials are in the hands of administrators like the academic dean at my institution. Some of these materials directed at administrators note that English teachers are likely to hesitate if asked to use MY Access! Perhaps as part of a campaign to overcome such hesitation, Vantage Learning is producing and distributing other promotional materials that speak more directly to the skeptical writing teacher.

Vantage Learning (2004d) begins what it labels its "challenge" to writing teachers by showing cognizance of their day-to-day classroom realities and concerns, particularly those of teachers working at the secondary level. While calling attention to recent studies asserting that educators *must* provide students with more opportunities to write, Vantage Learning notes that teachers "instruct a minimum of 120 to 200 students weekly. Assigning and hand-scoring one writing practice per week requires at least 25 hours of teacher time." Such assignments are also crucial in preparing students for the various state writing assessments now often "required for graduation or grade-level advancement." References to the teacher's burden—which is defined as coming up with assignments, responding to them, and examination preparation—and that burden's inevitability are common in literature on computer-assisted writing assessment more generally. In his essay for the Shermis and Burstein collection, Miles Myers (2003, 13) writes that the "average secondary teacher . . . has a student load each day of 150 or more students. In a book-bound classroom, without computers, the management and cursory monitoring . . . of the special needs of students for information and practice in Composition Knowledge is a nearly impossible task." Not surprisingly, reviews of MY Access! continually highlight its effectiveness in bringing up the scores of students taking state-mandated tests. In a recent article about ETS Technologies' program Criterion Online, a program

that resembles MY Access! linguist Julie Cheville (2004, 47) argues that the context of high-stakes assessment contributes significantly to the “privileging” of automated essay-scoring tools in the classroom.

However, Vantage Learning also pitches its product by playing on teachers’ potential investment in process-writing instruction and their commitment to enabling students economically, socially, and personally through literacy learning. Vantage Learning (2004d) follows up its appeals to fear and fatigue by emphasizing how the program “engages and motivates students to want to improve their writing proficiency.” Students are motivated to “write more frequently.” Adopting the program will help teachers to more effectively respond to the individual needs of students, to engage in “informed intervention.” “MY Access!” an “innovative” new tool, “empowers students to participate in their own learning journey” (Vantage Learning 2003a).

Looming behind such claims appears an awareness of recent concerns like those articulated by the National Writing Project and Carl Nagin in *Because Writing Matters: Improving Student Writing in Our Schools* (2003, 18). For example, in Vantage Learning’s claims I hear echoes of the credo of process-writing movement leaders like Peter Elbow, who link student empowerment with a desire to write. Known for commitments to the process-writing movement and to the professional development of writing teachers, the National Writing Project and Nagin make a number of recommendations for improving writing instruction in the schools that are also addressed in Vantage Learning’s claims. They call for more school-related opportunities for students to write (12), something Vantage Learning, with its frequent reference to improving student “access,” says it will provide. In addition, the National Writing Project and Nagin call for “mastery of diverse writing tasks” (13), reflected in Vantage Learning’s assertion that MY Access! allows students to work with different types of discourse (it lists informative, literary, narrative, persuasive forms) and for varied audiences (Vantage Learning 2004c). The National Writing Project and Nagin also argue that instructional feedback is essential to student growth and that teachers should offer more by way of constructive analysis and not criticism when responding to student writing (14). Vantage Learning (2004a) suggests that its program will help teachers achieve such a goal by providing “instant,” “diagnostic” feedback aimed at individual improvement. One recent user, whom Vantage Learning (2004a) quotes, underscores the motivating power of quick feedback: “The immediacy of the response is a remarkable reward. It’s quite amazing: once [the students] get going,

the hum of writing and thinking and crafting permeates the space. How wonderful!” Similarly, in his report on the program, Ronald Schachter (2003, 20), a former high school teacher, describes the computer as “coaching” students.

Promotional material, thus, uses language sensitive to values common to classroom teachers in the field. Over the past thirty years process-writing approaches have made significant inroads into the teaching practices of K–16 teachers. Composition studies and literacy studies, along with the work of such initiatives as the National Writing Project, have been among the forces transforming the thinking and practices of K–16 writing teachers. Studies like the 1998 National Assessment of Educational Progress have shown persuasively that students who perform better on writing assessments engage in planning and produce multiple drafts, revising with the help of teacher and peer comments (National Writing Project and Nagin 2003, 43–44). Vantage Learning (2004d) implies that it shares such assumptions, describing writing as “a continuous, iterative process of writing and revising.” Alongside this definition Vantage Learning provides a nonlinear diagram like those many process-minded instructors use when discussing with students the recursive nature of writing. A walk through the MY Access! demo (2004b) shows that when composing within the program, students are urged to begin by prewriting and provided with links to Venn Diagrams or Cluster Webs, which will stimulate their thinking. As in many a process-oriented writing workshop these days, students are also encouraged to use a journal writing space, or notepad, built into the program, where they may reflect on their own goals or development as writers.

The company assures the process-oriented instructor, furthermore, that the computer as coach is not concerned just with surface features. MY Access! uses IntelliMetric which, as Scott Elliot (2003, 72) notes in his chapter for Shermis and Burstein, “analyzes more than 300 semantic, syntactic, and discourse level features” which “fall into five categories,” “Focus and Unity; Development and Elaboration; Organization and Structure; Sentence Structure; Mechanics and Conventions.” (See Jones, chapter 6 in this volume, for an analysis of how IntelliMetric analyzes these features.) Vantage Learning (2004b) lets teachers know that when evaluating in the domain of focus and meaning, the computer looks at whether audience has been addressed; when evaluating organization, it asks whether the introduction is engaging and the conclusion “strong”; and when considering content and development, it considers whether the writer “explores many facets of the topic.”

Finally, in reassuring potential users that the program is intended not to replace teachers but rather to serve as an instructional aid, Vantage (2004c) emphasizes that instructors may override scores. Teachers have access to a “flexible rubric” as well, allowing them to evaluate student writing using only a selection of the available domains (e.g., focus and sentence structure). Instructors may also embed their own comments within student essays or design their own prompts. Since IntelliMetric requires a large number of hand-scored essays on a particular topic in order to perform discursive operations, instructors who create their own prompts will need to evaluate the students’ work themselves in most of the domains.

The National Writing Project and Nagin (2003, 10) suggest that process-oriented teachers work from a position articulated by scholar James Moffett: “Writing has to be learned in school very much the same way that it is practiced out of school. This means that the writer has a reason to write, an intended audience, and control of subject and form. It also means that composing is staged across various phases of rumination, investigation, consultations with others, drafting, feedback, revision, and perfecting.”

Teachers are using varied technological resources such as blogs, listservs, and integrated writing environments to open up the spaces of learning—to widen the process of investigation and to bring students into contact with different audiences. Vantage Learning would likely assert that MY Access! should be included on that list of resources extending the realm of possibility. But a closer examination of the program suggests that rather than occupying a multidimensional space, MY Access! constricts and narrows the learning environment. In the words of Julie Cheville (2004, 47), such technologies are more likely to “impoverish students’ understandings of language conventions and writing.”

In “What Happens When Machines Read Our Students’ Writing?” Anne Herrington and Charles Moran (2001, 497) discuss the ways in which, by demanding that students write to computers and not to people, computer assessment “sabotages many of our aims for our students’ learning,” in particular our desire to help them explore the role of context in their own writing. Meaningful explorations of context occur through engaged conversation between students and peers, students and teachers, and students and outside audiences. Miles Myers (2003, 11) claims that automated evaluation systems help students to publish their work, offering an “internet connection to an audience which will provide a score and possibly some other evaluative responses.” But the

responses offered by MY Access! are not the stuff of much conversation. The “hum of writing and thinking” that permeates the space comes from individuals entering data into a computer. What is lost is that noisy space of exchange (either online or in person) between writers and audiences—a space most process-oriented teachers see as critical to effective writing instruction.

Julie Cheville (2004, 51) shows effectively how Criterion Online subordinates meaning to “fixed linguistic and compositional features.” By way of example, she notes that such programs fail to recognize either inventive or illogical essays, and cites Jill Burstein, a computational linguist for ETS Technologies, who admitted that e-rater “looks at an essay like a bag of words.” (Cheville 2003, 50) MY Access! works in much the same way, reading against generic forms instead of in real-world contexts, and in doing so creating road blocks to rumination and investigation. The program does remind students that it is important to “stick to your main purpose when writing” and to “think of your audience as you write” (Vantage Learning 2004b). But it is unable to engage in the close kind of listening around which process-oriented classrooms are built. The program won’t say back to the student in its own words what it thinks the student “means,” nor will it comment on the voice projected by the piece or discuss with the student what more it would like to hear. It may underline phrases that are “nonstandard” or “colloquial,” perhaps giving the student a chance to think about whether they are appropriate for a given audience, but then possibly marking the student off for their use when generating a score. And the program may underline what it perceives to be a student’s thesis, but it will not play the believing and doubting game, thus helping students rethink underlying assumptions behind claims.

Herrington and Moran (2001) note the gamelike nature of their experiences writing to the computer. Interestingly, one California English teacher and assistant principal describes the reaction of a group of California English-language learner high school students using the program. “It’s really a voyage of discovery. The kids log on, pull up their portfolios, write, rewrite, submit, rewrite, get their scores and then do it all over again. . . . It’s like they’re playing the game of writing. And they love to win.” (“High Schools Plug into Online Writing Programs” 2003) Still, unlike many computer games today in which players actually construct rules together as they play, as happens in the real economic and social world in which these students will live and work, the game of MY Access! is a highly prescriptive one. Collaboration, cooperation, or contention are not among the classroom discourse practices promoted by this game.

When using MY Access! students do not compose and revise in relation to real-life learning communities. Their journey of discovery is a solitary and linear one. For instance, features promoting online or in-class discussion of their ideas with teachers or peers do not appear to be built into the program—such discussion would certainly slow down the students on their race to win. Promotional materials written for administrators construct the revision process differently from, and more honestly than, the material available to teachers, noting that students use the feedback to revise “as appropriate,” not “where effective” (“High Schools Plug into Online Writing Programs” 2003) Results from the assessments may, similarly, be used by teachers and the school to “drill down on specific weak skills,” and not as material for valuable classroom reflection on the processes of composing and revising (Ezarik 2004).

The feedback MY Access! generates is formulaic and, as many critics of computer assessment have pointed out, never speaks to elements of surprise or spontaneity in a student’s work, as do real-life readers during face-to-face workshops or peer critique sessions. One program coordinator describing the use of the program in a California summer school class would likely disagree. She suggests that the students using the program were becoming “wonderful peer editors. They were helping each other, looking over each other’s shoulders. Their buddy would come over and say, ‘Look at that. You only have two sentences in your second paragraph. You have to write more stuff. Why don’t you give an example of something that happened to you’” (Schachter 2003, 22).

The student may indeed be offering his or her peer some valuable advice, and yet the critique appears motivated more by an understanding of the mathematics behind the computer’s evaluation than by a desire to have his or her needs as a reader met. *Education Week* staff writer Kathleen Kennedy Manzo (2003, 39) similarly observes that students in a class using Criterion Online had learned that if they included “predictable words, phrases, or features in their paper, the computer would view it favorably regardless of the quality of the work.” Programs like MY Access! fail to encourage students to become introspective readers of their own and others’ writing.

Just as MY Access! impoverishes the work of the student, so it impoverishes the work of the teacher. The 1998 National Assessment of Educational Progress linked higher levels of student performance with such teaching practices as teacher-student discussion. “Students whose teachers always spoke with them about their writing outperformed their

peers whose teachers sometimes spoke with them about their writing” (National Writing Project and Nagin 2003, 44). At first glance Vantage Learning appears to encourage such student-teacher interactions, arguing that the program is not meant to replace teachers but rather to liberate them from cumbersome tasks such as grading and record keeping. Teachers may then put their talents to work as coaches instead of judges—become, in the words of one California administrator, “collaborators” (Schachter 2003, 22). This administrator envisions these collaborations, however, as ones in which teachers help the students to interpret what the computer has said, and not ones where they provide their own, perhaps contradictory, feedback.

Miles Myers (2003, 16) provides a more complex picture of how computer-assisted instruction may aid the teacher in the response process, paraphrasing a teacher who had used *e-rater*. “The student and I can together consult the *e-rater* scoring and analysis of the essay giving us a third party with whom we can agree and disagree. The *e-rater* score and analysis can make clear that there is something in the world called Composition Knowledge, that evaluating essays is not just a personal whim in my head.”

And yet many process-oriented instructors would argue that it is the job of the teacher to persuade students that the judgments of real-life readers, whether they be teachers or not, *matter*—that responses are rooted not in personal whim but in a complex web of social expectations and understandings that shift from one rhetorical situation to another. Granted, grading and responding to student writing is a process with which many teachers, especially beginning teachers, may feel uncomfortable, and yet that discomfort should feed a desire to model for students a process of judgment that is sensitive, multileveled, and aware of the landscape—the process that students themselves should adopt when reading their own and others’ writing.

As noted, Vantage Learning (2004c) reminds potential users that teachers may embed their own comments or responses to student writing or even turn off certain features, rewarding students for keenness or complexity not measurable by the computer; and teachers are able to override computer evaluation but, as the preservice teachers taking my writing pedagogy class remarked when learning about the program, students may well see the computer’s evaluation as carrying more weight than that of the teacher. One teacher using Criterion Online notes that students know the difference between what the computer tells them and what their veteran teacher has to say (Manzo 2003, 40). But it seems

likely that less seasoned teachers, or those whose lack of confidence in their own expertise leads them to see their responses as arising from personal whim, will not convey to their students the same faith in their own judgments.

MY Access! takes authority away from the teacher/facilitator as reader and responder, rendering him or her not a coach but a translator. It also takes over the process of assignment construction, relying on prompts developed to work specifically with the program. Many of these prompts may be similar to ones already in use by teachers. But even if they invite students to write about interesting topics, they do not arise organically out of classroom discussions or other reading and writing activities done in relation to those topics; nor do prompts draw on the familiar and nuanced language of the teacher or make it clear to students how a writing assignment is sequenced in relation to an earlier assignment. While teachers might address these issues by elaborating on existing prompts, giving the student more background or supplying links to other lessons, the computer will certainly not take that added context into account when responding to the student writing. As noted, teachers may add their own prompts; but since one of the program's primary selling features is the feedback it provides, and given the expense incurred in adopting the program, teachers are likely to feel pressured to employ the program's prompts fully.

MY Access! claims to contribute to the professional development of writing teachers. Yet by removing the process of curriculum development from the hands of the teacher, teaching becomes no longer a multifaceted process that responds to the shifting needs and interests of a particular community of learners within a certain space. In "Crossing Levels: The Dynamics of K-16 Teachers' Collaboration," Western Massachusetts Writing Program affiliates Diana Callahan and others (2002, 205) assert that the most effective professional development models "assume . . . that teachers' knowledge is valuable—all teachers." MY Access! is built on no such assumption, instead channeling student and teacher reflection into narrow and predictable cycles.

The claims I have made about the ways in which MY Access! constructs learners, teachers, and the learning environment invite much more exploration. In criticizing programs such as MY Access! I do not want to ignore the very real burdens teachers and students of writing, particularly at the primary and secondary levels, confront. But we need to hear less from industry and more from actual students, teachers, and schools using programs like MY Access! As Carl Whithaus notes in

chapter 12 of this collection, programs that read our students' work are already in use, and what is needed are more detailed discussions about how teachers actually approach such software. How widely used are MY Access! and programs like it? How much of a place are these programs given in the classroom or in learning centers? How is their use being funded? What is sacrificed in order to put money into using the program, in terms of teacher professional development, smaller class sizes, other technologies? What do students and teachers of varying backgrounds and needs actually think of the programs and their role in their development as writers and teachers? And how do students accustomed to using such programs respond to the far more complex rhetorical tasks and audiences that await them in actual professional and academic settings? For fuller answers to these questions, discussions must include administrators, teachers, and scholars working in varied disciplines and at different levels, from elementary to university.

As a faculty member working in teacher education, I would argue that preservice teachers must also play a pivotal role in our discussions. With this in mind, I am working on making this subject not only one of personal inquiry but one of interest for my students. Near the end of my semester-long inquiry-based course in writing pedagogy, and prior to a discussion of available technologies for writing instruction, I provided my students with a copy of the MY Access! promotional brochure sent to me in 2003 and asked them to imagine that the principal at their school had invited them to share their initial impressions of the program. Many of my fifteen students made revealing observations. Some were intrigued, recognizing the appeal computers might have for their future students. Well aware of the large numbers of students they were likely to have in their classes, some pointed out the value of providing students with feedback more quickly than they possibly could by hand. But several wondered about the impersonal nature of such experiences. One student noted that using the program “[t]ells students they are being handed over to machines.” “Do the teachers even care about us anymore?” she imagined her future students asking. Other students saw the program as inviting formulaic or highly standardized writing, leaving little room for creativity. “This seems like all student essays will sound exactly the same,” commented one, while another wrote “[t]his could stifle and misdirect development of writing skills.” One made a direct connection to standardized testing: “Writing for the computer [is] just like writing for MCAS [the Massachusetts Comprehensive Assessment System, used to determine advancement and graduation].”

The above responses are anecdotal, growing out of a classroom exercise, and yet my students' insights have been useful to me in considering what subjects of inquiry we should take up in my writing pedagogy courses. In future semesters I see my classes doing more of the following:

- Discussing and evaluating various programs available to and in use by middle and secondary school teachers. This means examining programs like MY Access! while also investigating viable and less invasive technologies to aid in both teaching and learning.
- Exploring in even greater depth how human feedback and response matters to the classroom and student development as well as the significance of locally developed curricula and assessment systems.
- Helping future teachers grow and develop their confidence as writers and responders as well as investigating strategies for coping with a heavy teaching, and paper, load without resorting to computer grading.
- Considering the role of standardized testing in our curricula and the ways writing teachers prepare students for those assessments.
- Stressing the importance of advocacy and examining ways to participate in decision-making processes within our schools and school systems.
- And finally, in cases where teachers enter schools where programs like MY Access! are in use, generating strategies for being truthful about what the program in fact does—for helping our students to recognize its limitations. In such cases, teachers may use the program as an instructional opportunity, helping students to critically analyze and respond to what it means to have computers, instead of people, responding to their writing.