The computerized writing center at Logan High School is not a referral lab, but one that is fully integrated into the English curriculum. Junior and senior students work in the writing center for one-fourth of their English instruction time.

The "Writing Room," originally a grade-school media center, houses twenty-four IBM PCs, five letter-quality printers, and conferencing tables spaced strategically throughout the room. A full-time aide handles the scheduling for the room, maintenance for the hardware, and filing of software programs and student disks. She also gives all the basic instruction on word processing.

To help compose process writing assignments, the students use WANDAH, a software program originally titled "Writer's Aid and Author's Helper"—now marketed by Harcourt Brace Jovanovich as "HBJ Writer."

All Logan High English teachers teach writing as a process, using the computerized lab to support the philosophy and activities in their classrooms. The writing assignments, designed and written by the teachers, correlate with the standards of the Utah State core curriculum. A student who is assigned a typical composition, like "A Moment" paper, spends approximately five to eight class periods working on the composition. The models for the assignments are the selections used for literary study in the class. In To Kill A Mockingbird, Scout's narrative moments reveal the form for the students' own narrative papers.

For each writing assignment that students complete, they move through a process similar to the one William Strong envisions (figure 1).

Prewriting activities, such as adding sensory details or performing a piece of classroom drama demonstrating "showing, not telling," help students with techniques for more effective writing. Students also participate in warm-up and discovery activities before they begin drafting.
their papers. Most of the prewriting occurs in the classroom before students go to "The Writing Room." However, WANDAH does have four prewriting activities that do, sometimes, help students at this stage: "Nutshelling," "Planning," "Freewriting" and "Invisible Writing."

"Nutshelling" and "Planning" are short aids that can help students think about an expository piece of writing. Students are asked to address purpose and audience and to write a thesis. The "Freewriting" and "Invisible Writing" aids rest on Peter Elbow's theory of the power of brainstorming, where no one, not even the writer, is allowed to criticize or revise while ideas are flowing (1973, 5). WANDAH's "Freewriting" aid flashes a signal to the hesitant writer—"Just keep typing." For the "Invisible Writer," the screen goes blank; the students write one hundred words before they can see what they have written. Both of these programs do not allow revising, thus teaching the concept of noncritical brainstorming. Students use these aids during any part of the process when they are stymied and need to look inside their heads for new ideas.

Once students are in the lab, they draft either the conventional way at tables or at computers. After the first draft is completed, they work in response groups for content and organizational strategies. Another program that WANDAH has, which students use during the first cycle of Strong's process, is "Commenting." This program was devised for peer review and allows one student to comment on another student's disk without changing the original composition. The reviewer's comments are underlined and appear inside the text. The writer can then decide whether or not to incorporate the reviewer's comments into the original composition. Throughout the process, students are free to
move from computers to tables to response groups, collaborating and revising to complete pre-edited drafts.

For a process writing assignment, students do most of the writing on WANDAH's word processor. The revising section of the program adds an analysis, allowing for specific stylistic or editing types of instruction related to students' own pieces of writing. Only in the second cycle of the process—revising, editing and publishing—do students use WANDAH's revising aids; these programs help writers "clean-up" a piece of writing. Work on word usage, active verbs, or spelling becomes appropriate only after students have interesting ideas that are effectively arranged. Even then, teachers do not use all the revising aids for one writing experience. Teaching stylistic techniques such as avoiding strings of prepositional phrases and using active verbs, at the same time, would confuse high school writers. Also, the stylistic principle should match the kind of writing the student is working on. Avoiding strings of prepositions is more appropriate for expository writing than narrative, for example.

Most of the revising aids need teacher instruction for students to see how these aids apply to their own writing. However, the spelling, word choice, and mechanics aids need little instruction to be effective. These aids simply highlight a possible mistake such as a missed quotation mark or a misuse of the word "their." The spelling checker program marks any words that are not in the WANDAH dictionary and makes the writer decide whether or not the spelling is correct. In all of these programs, the students can correct the errors as they find them on the screen because the revising program is fully integrated with WANDAH's word processor.

For the other revising aids, teachers design specific activities to teach the concept that governs the aid. For each "Writing Room" process writing assignment, only one or two of these aids are integrated into the process. For example, for "The Moment" paper, students get a hard-copy printout of their pre-edited compositions with all the "to be" verbs marked. They return to the classroom for instruction on creating more powerful sentences by using active verbs. After a short demonstration, students use their own writing to practice the concept. Students, working with their own writing, seem to learn stylistics, usage, and mechanical principles of writing much more readily and permanently than they do working out of textbooks with someone else's isolated, uninteresting sentences.

Two of the revising aids, a "Sentence Outline" and a "Transition Search," can help teach organizational strategies. For the "Sentence Outline," the computer marks either the first sentence of a paragraph,
or a selected topic sentence within the paragraph, and produces an outline of the paper. Obviously, this aid is appropriate for only a few, very specific kinds of writing.

The "Transition Search" marks common transition words and phrases, such as "first," "later," "in addition," and "for example." In the classroom, teachers can use student writing to show how transitions can establish relationships between ideas. Most of the time, the lesson on using transitions is made visible by the scarcity of marked words in a student’s composition, so the transition search aid is of little value without interpretation and clarification.

The "Pronoun Search" also helps give the teacher and student meaningful classroom material for working on such common problems in usage as pronoun agreement and clear pronoun references. Instruction can focus on problems individual students have using pronouns. Mina Shaughnessy says teachers should "heighten the student’s awareness of the grammar web he spins as he moves from left to right across the page" (1977, 114). She says this can be done by having students draw a line from each pronoun to its antecedent or between two pronouns to call attention to any shifts in person. This exercise is more easily accomplished when the computer marks the pronouns so students can identify a pronoun and see how it works in the composition.

Three additional aids, "Abstract," "-tion," and "Gender-Specific" word searches, identify words that carry vague or inaccurate meanings. From these aids, students can develop an awareness of the value of specific word choice. When, in students’ own papers, a word such as "beauty" is highlighted as an abstract word, or "relation" as a weak noun, they will benefit from lessons on adding exact details and using strong verbs to replace general nouns.

When the computer identifies, again in their own papers, gender-specific nouns, such as "policeman," "manmade" and "stewardess" as sexist words, students see that language often carries unintended messages. Showing such students words like "police officer," "synthetic" and "flight attendant" as alternatives without bias suggests more than one word replacing another. It alerts them to the changing and complex nature of language.

Students learn the stylistic principle of avoiding strings of prepositional phrases for concise, clear and rhythmic writing best by manipulating their own created sentences. For a classroom activity on revising strings of prepositional phrases, students could revise a sentence like, "The game for the championship in baseball took place in the spring..."
at the end of the season in Salt Lake City.' The student who wrote the sentence might change it to, "The championship game in Salt Lake City ended the baseball season."

The most effective stylistic aid for high school students is the "To Be" find, another word search program where all the verbs are marked. The principle behind this program is easy for students to understand. For example, students immediately see the animation that occurs by simply replacing "is" with "hung" in the sentence, "The fog is on the valley." They can see the result of changing passive to active voice ("The test was failed" to "They failed the test") and using active verbs instead of linking verbs ("Grandpa’s voice was frightening to the child" to "Grandpa’s voice frightened the child"). Students more effectively internalize all of the stylistic changes when they practice them in the context of their own writing.

Varying sentence structure is another stylistic technique that is taught by WANDAH’s revising aids. The sentence length graph displays a graph of the number of words per sentence and the number of sentences in each paragraph. A graph that displays short sentences may indicate choppy, disjointed thoughts (figure 2). One that has long sentences may be confusing and boring to the reader (figure 3).

The stylistic principle of sentence variety is best taught with sentence combining activities used during the editing-revising stage of the process. Playing with different sentence structures improves students’ skills in constructing clear, smooth and effective sentences. After students have worked through some "closure" and "open" exercises in sentence combining (Strong 1984) and then rewrite some of their own sentences, they have the computer make a new graph displaying the variety of the sentences in the revised draft (figure 4).

Although Ruth Von Blum, the author of WANDAH, created the sentence length graph to prompt writers into using a variety of sentence lengths, for high school students it serves another purpose. When a student’s graph shows sentences more than forty words long, the teacher is alerted to a potential problem with run-on sentences and can group together students with this problem in order to give special attention to those who need it.

WANDAH is not the only computer program that contains prewriting and revising aids, although it is the only one with an integrated word processor. Available for the Apple and IBM, William Wresch’s Writer’s Helper, published by Conduit, works with any of the Apple or IBM word processors; students use two computer programs. Writer’s Helper
---+---10----+---20

Paragraph 1

Fig. 2. Sentence length graph (shorter).

---+---10----+---20----+---30----+---40----+---50-

Paragraph 1

Fig. 3. Sentence length graph (longer).

---+---10----+---20-- - -+

Paragraph 1

Fig. 4. Sentence length graph (after revision).
has many of the same revising features WANDAH has and many more prewriting aids. The prewriting part of Writer’s Helper contains eleven prewriting activities for students to do at the computer. Many of these, such as “The Questioner” and “Three Ways of Seeing,” are simply programmed sets of heuristics that ask students generic questions, helping to steer them in the direction of choosing a topic or developing one.

These activities, although they could be done as efficiently without a computer, are often helpful the first few times, but students quickly resist answering the same sets of questions for different writing assignments. Wresch has unique ideas; for example, he compares something to a day-old meatloaf, and interesting computer interpretations of traditional techniques for getting students to think about their subjects. However, prewriting activities, such as those he has incorporated into his computer program, thrive on verbal exchange of ideas, and the classroom provides a more natural setting for this to happen.

A new collegiate version of Writer’s Workbench is now available for the AT&T personal computer. Working with an AT&T word processor, this program has no prewriting aids but includes several additional revising aids, such as “Frequently Misused Words and Phrases,” “Split Infinitives” and “A Sentence Analysis” (Kinkead 1986).

Each program has some advantages over others. The English Department at Logan High uses WANDAH because it was the pilot school during the development of the program at UCLA. Since all students and teachers use WANDAH, one of its most important features has been the ease with which students learn to use it. However, it is not the merits of an individual computer program that help students find success in writing, but the teaching philosophy that governs the use of a program. Computers profit teachers who work through the process of writing a composition with their students and who focus their instruction on the students’ own writing. Students who practice process writing and receive meaningful, individual instruction become discerning writers and thinkers.

References


