THE STUDENT AS PRODUCER AND CONSUMER OF TEXT: COMPUTER USES IN ENGLISH STUDIES

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It is not new in English and language arts curricula to combine the study of literature with the teaching of writing skills, but computer use in the English classroom has the potential to help students enjoy and integrate their learning of reading and writing in a new way. Whether using computer-assisted instruction (CAI) or word processing, students can develop a new relationship to professional writing when they can interact with another writer's text and then use the same techniques on their own productions. Because machine-readable text is so editable, teachers can design activities that make literary analysis interactive and making writing exercises into a simulation with endless "what if . . .?" possibilities for production and discussion.

We can think of this new relation between the student and machine-readable text in terms of Alvin Toffler's theory of the "prosumer," the person who uses Information Age technology to combine the roles of producer and consumer. In *The Third Wave*, Toffler discusses how a new psychology, aided by new technology, allows people to tailor expert knowledge to their individual needs, for example, in self-help groups such as Parents without Partners or by joining a special interest group with a community bulletin board, calling in with their home computer to ask or answer questions. People gain a new sense of enjoyment and power when

they can participate in what they "consume" by having a direct benefit from what is produced and a direct relation to it.

In the English classroom, computer use can integrate the study of literature and creative writing, reading skills and writing skills, giving the student a new "prosumer" role as producer and consumer of text.

IMAGINATIVE WRITING

Three different approaches can be used to integrate the study of imaginative writing produced by professional writers and the creative efforts of students. First, the same program or technique can be used to analyze imaginative work by professionals and students. Second, programs can guide students in creating imaginative work and then lead to activities analyzing published works. Third, computer programs can involve students as collaborators in the creation of literary works.

In analysis, teachers can use a word processing program to get students interacting with a text. If the teacher wants to study the creation of mood in literature, she can type a short story into a word processor and save it (for example, as a textfile named STORY). Students can then be directed to load the textfile into a word processor and modify STORY by removing all the words or phrases that create mood and replacing them with a consistent marker (such as = =). The new textfile can then be saved under a new name (such as STORYBLANK). During the same class or at a later time, students can then be asked to change the mood by inserting funny words and phrases to replace the deleted mood words. Students can use the Search (or Find) command in the word processor to go quickly to the place for a mood word. They can then save their funny version under a new name (such as FUNSTORY). At any time, the students or teacher can print a textfile to produce a ditto or a paper copy for easy reference.

The teacher can demonstrate these techniques for the whole class, can assign a person or small group to do the project as an independent activity, or can make the assignment to the whole class. The choice of assignment will depend on the teacher's goals, the availability of computers and the students' familiarity with word processing. However, the exercise is a good introduction to word processing because it involves only the most basic commands:

loading a textfile, deleting part of the text, inserting a little bit of text, saving a textfile. Furthermore, group work sparks wonderful discussions as students debate what to omit and then have fun coming up with wonderfully inventive comic mood-creators.

Most important, instant revision means that the exercise feels like a simulation. The revision really changes the text, unlike paper-and-pencil exercises that show the original (the published, printed version) as well as the student's emendation (scribbled in pen or ink in the paper's white space). Students can try out different ideas: there is always room for another insertion. And the new version has as much visual credibility as the original.

Another technique for analysis of imaginative writing helps students get peer review by using the same program for their creations as for published literature. *Seen* is a CAI program with a tutorial for analysis of literary characters and a programmed-in bulletin board on which students can share and comment on each other's ideas. The program initially asks the user for the name of a literary character, the work in which he or she appears and a short opinion or thesis about the character. This information is then inserted in the following tutorial to apply the questions to the student's particular topic. For example, in the following question the words in capital letters were provided by the student: "What does ROMEO do in ROMEO & JULIET that shows ROMEO is VERY IMPULSIVE?" Other questions, continuing with this example, would ask what Romeo said that proved he is very impulsive, how other characters react, how other characters in a similar situation act and how a comparison proves that Romeo is very impulsive, and what the third-person narrator (if any) says that supports the thesis. The program then asks the student to list any evidence that contradicts the thesis and allows him to explain the apparent contradiction. Two summary questions encourage the student to analyze his observations: Does ROMEO change in the course of ROMEO & JULIET and, if so, how? What is your final view of ROMEO?

The overview questions often lead to a refined and expanded thesis, essentially the thesis paragraph of a paper, with evidence in the rest of the tutorial that can be used to support that thesis. The student's work is saved as a textfile 1) that can be seen on the built-in bulletin board, and commented on by other students, or 2) that can be printed out with the Teacher's Aide disk or loaded

into a compatible word processor for revision or printing. In a field test, students not only used the program to generate and test ideas for their writing, they reported and showed evidence that the repeated questions helped them read differently, noticing more evidence than originally (Schwartz, 1984).

In addition to using the program for analysis of characters in published literature, teachers can ask students to critique the imaginative writing of other students by running the program. For example, if the class assignment was to write a short story, student Judy could run *Seen* to analyze the character Brownstone in the short story of her classmate Miguel. Instead of having to say what she liked or disliked, Judy would show Miguel what she had inferred from the story. Miguel might ask for more analysis by other students or he might see what he needed to modify to produce a different impression on his reader.

Or Miguel might then run the program himself to re-think his characterization of Brownstone. Although *Seen* was originally designed for literary analysis, teachers have alerted me to these possibilities for analyzing creative writing.

Other programs guide students in creating imaginative works. *Story Tree* by George Brackett helps students write stories or read "interactive" stories. That is, each *Story Tree* text can have three kinds of screens: a story segment that simply progresses to the next screen, a "branch" at which point the reader decides among several options ("go towards the river," "investigate the source of the growling") or a "chance" branch (in which the reader is sent along one of several paths by a random choice of the computer). The student reading one of these texts develops a sense of plotting—how a choice in story line rules out some options and leads toward others. In the sample story "Magic Marigold Mine," by Patti Kahn, if the reader chooses to head for the river, she will miss the dread Kungaberry warthog. Students can also write their own plots, with the same three options (continue, branch, chance branching). But unlike Frost's road not taken, the simplicity of story line in the program encourages students to explore different turnings. The student who has read a story (consumer) can then turn around and write a story (producer). And until the story is deleted from the disk, it is "published" for other prosumers.

Compupoem by Stephen Marcus provides advice to writers after they are guided in writing a poem consisting of a noun and

two modifying adjectives, a prepositional phrase and a verb with two modifying adverbs. For example, here's a *Compupoem* product:

The computer
friendly, blinking
on my desk
patiently, always
plays.

The poem is formulaic in production, but the advice provides guidance in expanding the form by substituting noun phrases for nouns. Advice modules also introduce such notions as poetic syntax and allusions.

Because of the nature of the prompts ("Name a noun," "Type a prepositional phrase that tells where or how your noun is"), a teacher can use *Compupoem* to teach parts of speech before (or after) providing the definitions in class. Furthermore, the teacher can use the program not only to overcome Writer's Block in students, but also to introduce a study of published poetry: how many of the poems in the textbook have a form similar to that produced by *Compupoem*? What is poetic diction and how has it changed through the years?

Finally, students can enjoy participation in literature in a new way with interactive fiction. The original adventure games such as Adventure envelop users in a fantasy world of treasure hunts, hostile dwarves and pirates. More sophisticated than *StoryTree*, adventure games integrate the user's entry in the plot. Interactive fiction involves the user/reader as author and adventurer/detective with the resolution of the story dependent upon the student's input.

EXPOSITORY WRITING

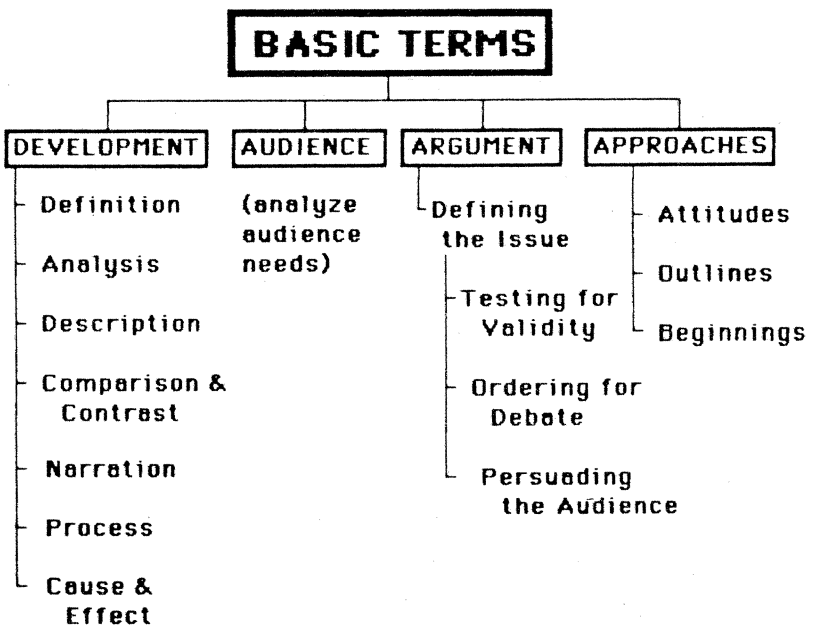
CAI and word processing can also blur the distinction between the student as consumer and producer of expository writing. Teachers can integrate the study of models with the production of their students' writing, whether they are teaching organization and development of ideas or grammar skills.

A number of pre-writing programs exist that help students generate ideas and develop them: *Writer's Helper* by William

Wresch; *Topoi, Tagi* and *Burke* by Hugh Burns; *Prewrite* by Mimi Schwartz, *Organize* by Helen Schwartz, and *Proteus*; for grades 3-10, the PreWriting modules in Milliken's *Writing Workshop*. In addition, *HBJ Writer* contains two relevant segments: Nutshell asks students for their title, thesis and audience; Planner encourages students to develop an outline based on arguments for and against a thesis. A number of these programs could also be used to analyze a model essay showing its organization; namely, *HBJ Writer, Organize, Proteus* and *Writer's Helper*.

Let me illustrate this point with *Organize*. As the map of the program shows (in Figure 1), the student must first answer questions about Basic Terms (topic, thesis, audience and purpose), whether the user is analyzing her own plans for writing, the published essay of another writer or the manuscript of a fellow student. These four Basic Terms are then used within the 16 tutorials in the four segments of *Organize*:

Figure 1



Development provides tutorials on Definition, Analysis, Description (by physical features, function, examples or analogy), Comparison-and-Contrast, Narration, Process and Cause-and-Effect.

Audience is a tutorial to assess audience needs and expectations so the writer sees what to include, what to omit and what to subordinate.

Argument starts with Defining the Issue (stating the controversy plus pros and cons) and then allows the writer to choose Testing for Validity, Ordering for Debate, or Persuading the Audience.

Approaches offers tutorials on Attitudes (toward the topic), Outlines and Beginnings (with a scratchpad for freewriting).

If the teacher were doing a unit on comparison and contrast, she might want to assign a model essay, having student analyze it using the Comparison-and-Contrast tutorial in the Development segment of the program. Then students would be assigned to write an essay comparing and contrasting two items of a topic. *Organize* could help students conceptualize their topic in terms of purpose, thesis and audience. The students' work would always be saved as a textfile that could be printed or transferred to a compatible word processing program. Once the students wrote their papers, peer groups could respond to the essays by answering the tutorial questions on the basis of a student's paper.

For critical reading of essays, the teacher might supplement class discussion with students' analysis of argumentative essays by using Defining the Issue (to get at arguments for and against a thesis) and Testing for Validity (to list supporting evidence). Persuading the Audience would help students see how writers appeal to the needs and values of their audience. Cause-and-Effect would point out the logical fallacies that sometimes weaken arguments.

By using the same program to analyze models and to generate their own ideas, students close the gap between themselves and published writers. The same technique works with outlining, using a program such as *Think Tank* or word processing. With either computer aid, a student writer can generate a list of ideas, reorder it and then subordinate minor ideas to major ideas. She

can also insert paragraphs to develop the points of a paragraph. Such outlining schemes can also be used to analyze the work of a published writer. Using the same technique involves the student more actively with the published work and helps to show that the student is also a writer. Analysis becomes more distanced, less idiosyncratic-seeming.

Another organizational technique asks the student to find the thesis sentence in each paragraph of an essay in machine-readable form, to mark the paragraph with an asterisk and then to delete other sentences in that paragraph. At the end, the student has practice in identifying (or providing) thesis sentences and a de facto abstract of the essay—whether the student has used a published essay for the exercise or her own or a classmate's.

Finally, teachers can integrate study and practice of grammar into their lesson plans in a more game-like and interactive way, by using computer programs and word-processing techniques. The textfile used to analyze a story for mood can also be used to check for mastery of parts of speech. Instead of directing students to delete all mood words, the teacher can assign that all subordinate clauses be deleted, or all nouns. Such an exercise works best using a powerful computer peripheral—the extra chair. Students can help and learn from each other. The teacher can check for accuracy while work is on the screen or in printed form. He can pass out a ditto created from a printout of the correct answer.

Teachers can demonstrate the importance of punctuation and capitalization by removing all capital letters and punctuation marks from a text. Students can then try reading the text aloud and deciding where the punctuation should go.

Teachers can help students understand the importance of style by using style checkers, such as the PostWriting in Milliken's *Writing Workshop* and MECC's *Ghost Writer* or the style sections in *HBJ Writer* and *Writer's Helper*. I feel that teachers need to be very careful using such programs on students' work. If students are using word processing, they need to know that surface changes for style will probably not improve their papers substantively. Checking for style and spelling can help students develop a sense of workmanship about their writing, but if such programs are applied before students have made substantive changes—in argument, amount of support and organization, for example—then

the style programs may undercut the writing process by making students stick to their first drafts. (Who wants to make major changes after spending time correcting spelling and style features?)

Furthermore, students need to learn that the computer can only give guidelines. The writer's purpose, audience and topic can affect what is appropriate for style. One good way of teaching this lesson is to type examples of published writing on a word processor, save them as textfiles to be analyzed by style checkers. What would such a program say about Hemingway? about Faulkner? about an editorial from the local newspaper? about Lincoln's Gettysburg address or the current president's latest speech?

Computers can help students involve themselves with language in an active and interesting way. Whether the teacher has one computer available or several, on a continuing basis or by schedule, he or she can begin to integrate the analysis of published essays and literature with the teaching of writing, the study of ideas with the study of grammar. We no longer need to talk about the student as the producer and consumer of text, but instead as the prosumer of language.

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