

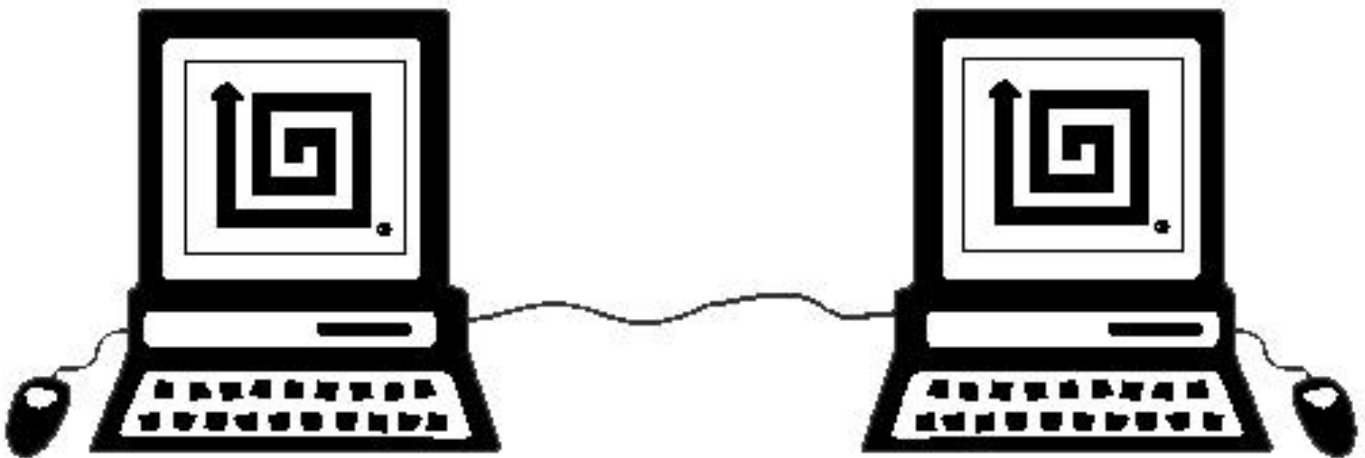
 **Daedalus**[®]

Integrated Writing Environment

for Macintosh Computers

Version 1.4

Instructor's Guide



September 30, 1997


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Welcome to DIWE

Welcome to the Daedalus® Integrated Writing Environment (also known as DIWE) from the Daedalus Group, Inc. DIWE is designed for writing instruction, collaboration, and communication among students and teachers in all curricula. This Instructor's Guide provides you with theoretical and practical pedagogical support for using the Daedalus Integrated Writing Environment.

Use this Guide in conjunction with the User's Guide, which provides the basic procedures for operating the Daedalus Integrated Writing Environment. When you finish reading these two Guides, you should have a working understanding of how you and your students can use the components of DIWE to best advantage.

In This Guide

- **What is DIWE?** overviews the components which comprise DIWE and the ways DIWE affects the teacher and student in the computer-based classroom.
- **Basic Principles of Collaborative Learning** explains one of the underlying pedagogical theories which affected DIWE's design, collaborative, or interactive, learning.
- **Managing the Student-Centered Classroom** outlines how to use DIWE modules such as Class Assignment, Mail, and InterChange to organize your classes, manage class discussion and interaction, and streamline tasks by using electronic handouts.
- **DIWE and the Writing Process** explores how DIWE's modules can be used for writing instruction, moving from invention to composing to revision.
- **Studying Literature with DIWE** explains how to use the tools in DIWE to best advantage in the literature classroom.
- **Working with DIWE and other Programs** provides brief details on using DIWE with other software at your site or which your students may have on their own computers.
- **Quick Info on DIWE Commands for Instructors** provides step-by-step instructions for using each of the program commands which a teacher will need in the course of the term.
- **Getting Help** outlines the additional resources available to teachers and technicians working with DIWE, including details on how to contact the Daedalus Group for answers to your questions about the software.

Site Management Information

If you need to install DIWE, please consult the Installation Guide, or be sure that the people responsible for maintaining your classroom network read the Installation Guide and follow the installation procedures it describes.

Instructions for setting up classes, activating or deactivating classes or users, and modifying site preferences as well as Troubleshooting Details are explained in the Administrator's Guide.

Conventions used in this document

`Courier font` indicates text that is displayed or typed on the screen

Boldface signals menu commands and button commands.

Italic font represents information that you will have to provide. If asked to type *yourfilename*, you might type `PAPER1`

`<Key>` refers to an actual control key on your keyboard.

`<Key1+Key2>` indicates that two keys should be pressed together. For instance, when instructed to press `<Alt+F9>`, you would press (and hold) the `<Alt>` key and press the `<F9>` key.

Although the software is referred to by its full name (the Daedalus Integrated Writing Environment) most of the time, it is often shortened to DIWE to keep things simple.

TIPS ON USING DAEDALUS SOFTWARE APPEAR IN THIS FONT WITH THE CHECK MARK BESIDE THEM.

What Is DIWE?

DIWE, or the Daedalus Integrated Writing Environment, is award-winning computer software, developed *by* writing teachers *for* writing teachers, and used with students in hundreds of schools, ranging from middle school to four-year universities.

DIWE is a Computer Program

Daedalus is a piece of software, a computer program. Like all computer programs, it defines the computer as a particular kind of machine. Spreadsheet programs treat computers as devices for manipulating numbers in specific ways. Word processors treat them as machines for manipulating text.

DIWE, however, first defines the computer as part of a network, a set of computers linked together in what's called a Local Area Network, or LAN, so they can share information stored on a central computer called a fileserver. Then DIWE defines the computer network itself as a medium for teaching and learning by means of (often interactive) written discourse.

DIWE is a Collection of Programs

Writing and Thinking Tools

The software is an integrated package of writing / thinking tools designed with the classroom in mind. The program focuses on teaching and learning by means of (often interactive) written discourse — encouraging collaborative work, critical thinking skills, and communication. DIWE is comprised of these six modules, each designed to address a specific task or stage of producing a piece of writing:



Invent

Invent stimulates writers to explore their topics and to think divergently. The tool allows writers to save and print out the text to help them generate first drafts. You can compose your own Invent questions to supplement the twelve standard sets which come with the software.



Write

Write is a streamlined word processor which allows you to teach writing, not word-processing. It includes all basic operations (copying, pasting, spell-checking, printing) for writers to produce and revise drafts.



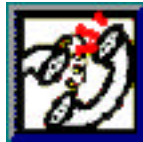
Respond

Respond allows writers to call up drafts and other documents for on-line analysis and review. Writers can save and print their text to use as they work on other assignments. Prompts can be modified to suit the assignment, ranging from peer review to document analysis.



Mail

Mail acts as the central switchboard for class communications, from private mail to group work. Date, time, and receipt stamps make it an effective class management tool.



InterChange®

InterChange enables synchronous, or "real-time" discussions for whole classes or small groups. Transcripts of these discussions are recorded and are available for viewing and printing.



BiblioCite®

BiblioCite prompts writers to record bibliographic entries and maintains them in a database of sources. It generates a Works Cited page in MLA style or a References Page in APA style.

Class and Document Management Tools

In addition to the six modules, DIWE includes class and document management tools which streamline the process of sharing documents and distributing handouts as well as allow the teacher to customize the content to fit the class.



Class
Assignment

Class Assignment allows you to post instructions and other messages to your students in a file they can view at any time but which only you can modify or delete. The document is the first thing students see when they log into the class, and it can be modified as often as you like.



Document
Management

Document Management organizes the system for sharing documents in the class. Students can turn in drafts for peer review or collaboration and read the papers and drafts of others in their class using the **Turn In a Document**, the **View a Document**, and the **Copy a Document** commands.



Login

Login is student-based, allowing each student to log in without complex administrative set-up. With this login, the student becomes a registered participant in all modules from Mail to InterChange to Document Management, all work the student does is linked to a specific login name.



PromptManager

PromptManager is a SuperCard stack you can use to create an Invent or Respond prompt series or to customize an existing series. You can run the program within DIWE or copy the files to a diskette and work outside the DIWE classroom on your office or home computer.

Local Area Network Tools

All the sharing and collaborating in DIWE takes place on a network, connecting all the students in a particular class or lab at your site.



Local Area
Networking

Local Area Networking allows users to share their files and documents. DIWE requires a Local Area Network set-up, with a fileserver and workstations. Even if you set up your site using a peer-to-peer network, one of your machines will need to function as the fileserver by serving as the location for the network files for the software (including files such as the questions for Invent and Respond and the shared files for Mail and InterChange sessions).

DIWE is an Interactive Medium for Teaching

The Instructor's Perspective

We can describe DIWE from the instructor's perspective as an integrated and integrating writing environment, designed by instructors specifically for computer classrooms. First, DIWE integrates two powerful and highly successful approaches to writing instruction and makes them seem natural extensions of one another. These are the process approach described by Flower and Hayes on the one hand, and, on the other, the collaborative approach popularized by Kenneth Bruffee and others.

The process approach tends to focus on the practice of individual writers; the collaborative approach, as its name implies, emphasizes relationships among or between writers. By uniting these two approaches under a single **Activity** menu, DIWE encourages students to see the different components of the writing process—invention and pre-writing, composing, and revising—as dynamically related parts of a social process rather than as separate activities geared to creating different products (an outline, a first draft, a final draft). By the same token, it encourages students to view their social interaction as part of a recursive writing process.

As a result, DIWE integrates students and teachers into DIWE communities, communities that are defined by the "talk" they create and share and by their shared commitment to sustaining that "talk" as a conversation about issues and ideas that matter to individual members and to the group as a whole.

The Instructor's Role

With Daedalus, then, the electronic classroom becomes a student-centered learning environment, in contrast to the teacher-centered environment of the traditional classroom. The traditional classroom is designed as a kind of broadcast medium, a stage for the instructor's presentation of knowledge. In the Daedalus classroom, students engage with one another, with the instructor, and with the course material, in an on-going process of creating understanding.

This shift of emphasis in no way diminishes the instructor's importance. On the contrary: the electronic classroom actually expands the instructor's role. As an instructor, you must carefully define the intellectual and social framework within which the class's negotiation for understanding takes place.

The course syllabus and daily Class Assignment files are important tools for this purpose. The syllabus defines the general framework for the course and the broad sequence of reading and writing assignments. The daily Class Assignment files flesh out the framework and provide a mechanism that you can use in continually fine-tuning assignments in response to what happens in the classroom from day to day. In the classroom itself, you may be actively involved in working with individuals and groups of students through the range of their activities; you'll find that DIWE actually permits more substantial engagement with more students than is really possible in the traditional classroom.

DIWE also permits a level of engagement among students that would be almost impossibly disruptive in the traditional classroom. This engagement is immensely beneficial, but it's not without its problems. Genuinely collaborative learning, in which students work together to construct an understanding of the course material that none of them would be likely to arrive at by themselves, is extremely powerful and highly rewarding. It is also very different from what most students are used to. The freedom and flexibility that DIWE affords—and the responsibility these entail—may well prove confusing and difficult at first for students who have grown accustomed to being told exactly what to do.

The open-endedness of InterChange discussions may seem frustrating to students who are used to seeing teachers settle disputes. The idea of sustaining a sub-topic throughout the semester—something that Mail readily permits—will likely be an unfamiliar one to most students. Similarly, the rigorous questioning of Invent's prompt series may disturb students accustomed to writing highly formulaic, conventionally-structured essays. Respond calls for similarly rigorous peer review and critique, and may prove difficult for students unaccustomed to giving or receiving candid yet tactful responses.

You'll have to help your students learn to accept their new freedoms and responsibilities. You'll have to help them understand the difference between the irresolution that results from failure to work out something that should have been within reach and the open-endedness that comes from engaging questions to which there is no single answer; and you'll have to help them re-frame their arguments and to discover the differing assumptions underlying their

disagreements. In short, you'll have to help them learn the art of negotiating, the social as well as intellectual dynamics of argumentation and persuasion. And at first you will have to help at least some of them become comfortable with the technology. And you'll also have to determine the appropriate mix of computer-mediated with more traditional forms of interaction.

What is unique to DIWE is that so much of this continual negotiating takes place in writing. In traditional classrooms—even those where teachers emphasize collaboration—students customarily write only when they are actively working on an essay; the rest of the time they engage in oral discussion, or take notes while the instructor lectures. DIWE doesn't preclude such activities, to be sure, but it does tend to favor written rather than oral interaction.

At the same time, DIWE fosters a continuing interplay between formal and informal prose. Informal written interactions tend to become more rigorous as students learn the techniques and strategies of more formal prose. By the same token, the work students do when composing formal prose is continually reinforced by the informal prose they write in InterChange or Mail, Invent or Respond.

A New Perspective on Your Students

Perhaps the greatest benefit you will enjoy as a teacher using DIWE will be in the way it helps you see your students. The student who might have sat silently in the back row all semester may turn out to have quite a lot to say in an electronic InterChange, a discussion conducted over the computer network. The student who has seemed shy and diffident may prove to be a confident, sharply perceptive reader of peers' drafts. The student with the heavy accent, whose one attempt to speak up in class ended humiliatingly when his classmates laughed at his clumsy speech, may be more than ready to contribute to the written conversation.

You may also discover that many students have a talent for explanation or demonstration that never emerged in the traditional classroom environment; it may even be a talent of which the student is unaware. And that makes your students available to you and their classmates as resources, helping other students to grasp the material (and thus increasing their own understanding) while you are working with still others.

DIWE and Students with Disabilities

Passage of the Americans with Disabilities Act is likely to result in an increased number of disabled students on your campus and in your classes. The Daedalus Integrated Writing Environment may be of great benefit to some disabled students.

InterChange and Mail, for instance, allow deaf and hearing-impaired students to discuss their ideas on an equal basis with their hearing classmates (indeed, InterChange has its origins in Trent Batson's work with hearing-impaired students at Gallaudet University).

Students with speech impairments may benefit in similar ways, both in class discussions and in communicating more freely with instructors. Special

keyboards and other devices can be purchased relatively inexpensively to help students who have trouble using conventional keyboards and mice.

For visually impaired students there are a number of hardware and software techniques for magnifying all or some of the screen. Many blind students have become accustomed to working with speech synthesizers, which, in conjunction with specially designed software, read aloud any text that appears on the screen.

Information about such products and other adaptive devices for students with special needs is best obtained from the office on your campus charged with assisting disabled students, or from such organizations as state commissions for the deaf or for the blind. The Daedalus Group will continue working to make Daedalus products as fully accessible as possible.

DIWE is an Interactive Medium for Learning

Students can use the different components of Daedalus to prepare and plan their essays, to explore possible topics, to compose first drafts, and to review their own and their classmates' work. They can use the system to share their work and try out their ideas and perceptions, whether with individual classmates or the class as a whole, or with the instructor. They can move easily back and forth among the various activities, and, with your help, will soon learn to choose the module best suited to the particular writing task they are engaged in.

The freedom and flexibility of DIWE, and especially the social dimension of the software and the network, help students learn to see writing in new ways. Students have written many papers in school to satisfy their teachers, and perhaps a few thank-you notes to satisfy parents or relatives. Some have written business letters. But few of them will ever have written anything on their own initiative, out of a desire to share their ideas with someone or to work those ideas out through InterChange with a responsive reader; many of them have never had the experience of realizing that someone other than a teacher might read—and actually want to read—what they write. DIWE changes that: DIWE puts students in a genuine rhetorical situation, inviting them to write in order to communicate, so that others may know what they have to say. It helps them become better writers. In the process, they often become better readers and more perceptive critics of their own and other writers' work.

Basic Principles of Collaborative Learning

One of the pedagogical theories implicit in the Daedalus Integrated Writing Environment is collaborative, or "interactive," learning. The term is used to label many of the techniques that create a student-centered learning environment. Since the Daedalus Integrated Writing Environment encourages and enhances language use through social interaction, a basic understanding of the possibilities, limitations, and techniques of collaborative learning is necessary to maximize the effectiveness of teaching with this system.

A significant body of theory and research suggests that collaborative learning techniques are more effective than traditional teacher-centered or content-centered modes of teaching. Among the areas of superior effectiveness are academic achievement, non-cognitive outcomes such as attitudes and self-esteem, psychological maturity, and writing and communication skills.

Collaborative learning:

- encourages, perhaps even demands, student engagement. Students become active creators and users of knowledge, rather than passive receivers of knowledge.
- is ideal for practicing previously presented skills and concepts.
- is especially effective for developing judgment and problem-solving skills, two intellectual areas necessary for critical thinking and writing.
- uses open ended issues and problems that will promote disagreement among students, thereby creating rhetorical situations which force class members to negotiate solutions to the problems. The rhetorical situations that arise from these conflicts offer students practical experience in the methods of communication and persuasion.
- differs from traditional group work because students are attempting to create personal knowledge through negotiation (language) during social interaction, not merely working collectively to figure out what the teacher wants.
- is more effective than presentational methods, but perhaps more difficult to make work. The teacher must relinquish the role of sole authority and

presenter of knowledge. Instead, the teacher must create situations and opportunities for students to interact, and must design activities that encourage the types of learning necessary for critical thinking, reading, and writing.

However, collaborative techniques are not well suited to all situations: unfamiliar skills or concepts are best handled in traditional, presentational ways. In terms of grammar skills, for instance, the individualized instruction of Computer Assisted Instruction (CAI) can be useful. In other words, students cannot collaboratively negotiate comma usage (not efficiently, anyway). They still need to know the conventions of standard usage.

Many students may be unfamiliar with the collaborative learning environment. Hence, teachers need to (1) foster cooperative attitudes and behaviors among the students; (2) teach students how to collaborate; (3) promote student independence and confidence; and (4) learn to manage in new ways in an electronic classroom. This section will discuss the first three basic principles of collaborative learning, and the next section will suggest how DIWE can be used to promote these principles.

Fostering a Communal Ethos

Every group has an identity, or “communal ethos” that suggests how its members should behave. For instance, a group of people call themselves Republicans or Democrats based on what they believe to be important and right; these beliefs are negotiated by the members, and bind members to the group, and members act according to the communal beliefs. They also sometimes re-negotiate these communal beliefs. The collaborative learning environment must also create an environment of cooperation and negotiation, because if the members of the group can't or refuse to work collaboratively, learning will be minimal.

Teaching Students How to Collaborate

Cooperative behaviors and collaboration will not come naturally to many students. Part of the cause will be psychological, but a great deal of the cause will be operational. Students need to be taught how to collaborate.

The process of learning has many pitfalls and opportunities for failure. Failure, especially in social settings, is the nemesis of confidence. Never introduce collaboration when the stakes are high, like on graded work. A good collaborative task must be clearly defined and limited, and its degree of difficulty must be carefully judged. Instructors must gradually phase in levels of difficulty.

All collaborative activities should start at concrete, easily accomplished levels of thinking. The task cannot be so easy that almost any student in the class could do it working alone, but it cannot be so hard that students working together cannot do it without relying on the teacher's expertise. It is essential that the task lead to an answer or solution that can represent, as nearly as possible, the collective judgment and labor of the group as a whole. Here, careful definition and limitation are especially important to the success of collaborative tasks because the task alone (without the teacher's intervention) has to keep the students' collective judgment and labor focused long and sharply enough for the job to get done. Students should be encouraged to cooperate through activities that require them to work with, not against, one another. Indeed, conflict is

necessary for negotiation, but students must also learn how to negotiate and how to manage conflict productively.

Here are more specific guidelines:

- Use the same general instructions to begin each task description. This uniformity eliminates the time groups may spend interpreting new directions.
- If the task is to discuss a text (primary, secondary, or student written), have one member in each group read it aloud. To encourage participation, specify that someone other than the reader take notes for the group.
- Because negotiating agreement can be time consuming, make sure that any analyzed text is short: one page, a single paragraph, even a few sentences.
- For the same reason, limit the number of questions. Often one is enough. More than four or five can be overwhelming.
- Don't be afraid to ask simple questions. Students will make the answers profound.
- By the same token, don't make the questions too difficult. Students will throw them back at you.
- Sequence the questions carefully. Move from low-involvement, non-threatening tasks to high-demand questions. For example, you might begin by asking students to share their first impressions of a topic or text. Then ask an analytical question. Finally ask a broad question that requires students to synthesize the material and their answers to earlier questions. The goal is to help students learn together to negotiate a few rungs on the ladder from low- to high-level cognitive skills.
- Ask questions that have more than one answer. Different responses will provide issue for debate and negotiation. For example, instead of asking, "What's wrong with sentence five?", try asking, "How would you correct the weakest sentence in this essay?"
- Ask controversial questions. For example, read the secondary literature to find a question that no one has satisfactorily answered. Then, after the groups have offered and discussed their answers, read them the opinions of several authorities on the same issue.
- Ask questions that require students to analyze passages concretely. Type out the text or reproduce the printed page, or refer to a page in a book everyone has brought to class. Ask pointed questions about specific words and phrases, what they mean, their relation to others, their possible significance to the whole passage, and so on.
- Ask questions that require students both to offer broad generalizations about the topic and at the same time to root their general conclusions in evidence. For example, if an essay is under discussion, ask: "What is your evaluation of the paper? Make three points to support your opinion." (Bruffee, *A Short Course in Writing*, 9-10)

Promoting Student Independence and Confidence

Experience, success, and well-defined expectations lead to the confidence that breeds independence. Establishing routines will go a long way in helping students develop confidence in themselves, and in you. The effect of this self confidence should not be underestimated. Diffident, teacher-dependent students will impede class progress with constant questions they could otherwise figure out for themselves.

Self-paced activities also promote self-confidence. At the beginning of a semester, students will need to learn the many skills necessary to use the network. There are at least two ways to teach these skills: group teaching and self-paced activities. While group presentation requires less planning on the teacher's part, it has the effect of slowing down learning, and may also slow down the network. For instance, if you are teaching the use of Mail, and all students send a message simultaneously, the network may get bogged down with processing all the messages. The resultant "dead-time" will threaten students' confidence in the system. In the same vein, if you are trying to teach the whole group, you must slow down the more adept learners by stopping the entire group to aid the few less able learners. It is better, therefore, to design self-paced learning activities. The self-paced activities will also permit you to individualize instruction for those few students who are having problems.

Managing Student-Centered Classrooms

Shifting accountability for learning from the instructor to the student does not diminish the instructor's role; rather, this shift in the balance of power redefines and expands the instructor's role. For it is the instructor who choreographs activities that foster communal ethos and encourage student independence and interdependence. The instructor must carefully define the intellectual and social framework within which the class's negotiation for understanding takes place. What follows are (1) some tips for teaching with technology generally and (2) some tips for teaching with specific Daedalus programs.

Teaching with Technology

PLAN AHEAD.

There are several things to take into account when you plan your classes. Of course your pedagogical objectives come first—what you want your students to learn by the end of the class. Then you have to consider which component(s) of the Daedalus environment are best suited to meeting those objectives, or whether DIWE is appropriate for the particular circumstances.

If the assignment calls for students to work collaboratively, it will be necessary to devise appropriate activities and, again, to consider what role Daedalus software should play. Time is a factor, too. It's important to have a sense of how long it takes your students to carry out various tasks. Collaborative activities tend to take longer than individual ones, especially at the beginning of the semester when students are still learning how to work together. The same may be true for the computer, at least for students who are less adept than others—though this should be a problem only the first couple of times students use a particular module.

NO BUSYWORK – TEACH COURSE MATERIAL AND COMPUTER SKILLS AT THE SAME TIME.

One way to address the time problem is to integrate computer skills with course-related matters whenever possible. If your students need to learn how to retrieve and print files from the network, for instance, try posting your syllabus on the network and having them retrieve it, which is an excellent first-day assignment. Or if you want them to practice word processing techniques such as cutting and pasting blocks of text, you might give them a sample file with the sentences out of order, and design an exercise requiring them to use cut-and-paste techniques to re-order the sentences. (After each student has completed the exercise, you can make an easy transition to collaborative activity by dividing the students up into groups of three, and making each group responsible for deciding how best to re-organize the paragraph.)

INTRODUCE NEW DAEDALUS MODULES ONLY WHEN YOU NEED THEM.

Tie the introduction of new Daedalus modules to specific pedagogical needs. There's no need, for example, to have your students practice using Invent until your syllabus calls for them to begin invention activities.

DISTINGUISH BETWEEN UNDERSTANDING THE PROGRAM AND UNDERSTANDING THE MATERIAL.

Daedalus software is very easy to learn and use. But it's a mistake to assume that a student who is demonstrably comfortable with the mechanics of using the software must also understand how to apply that understanding to the writing task at hand. The User's Guide can show them how the software works, but it's up to you to teach them what it's for.

USE THE COMPUTERS FOR WHAT THEY DO BEST.

The technology is very powerful and very tempting. However, there may be times when it might be better to rely on more traditional methods of instruction. InterChange is an extraordinarily powerful medium for class discussion. As noted earlier, it is not well suited to presenting large blocks of new material. You and your students will be better off if you give a short lecture and then go into InterChange so students can raise and discuss questions about the material you've presented. (If you want to make this a collaborative activity, try dividing the students into groups and making each student in each group responsible for presenting a specific aspect of the material to the rest of the group. Then invite them to join InterChange to discuss what they've learned.)

HAVE A BACKUP PLAN.

The Daedalus Integrated Writing Environment has been thoroughly tested and is highly reliable. But power failures and breakdowns do occur, and it's a good idea to have a backup plan, just in case.

AVOID TECHNOLOGY BURNOUT.

The local area network creates such unlimited possibilities that the creative teacher will be inspired to design numerous ways to tap its formidable potential. It is our experience that students can overload and crash, so to speak. It is often a good idea to reserve a seminar room (with couches and carpets, if available) where face-to-face discussions can be conducted in more traditional

surroundings. Any sound pedagogical method stresses variety of presentation, and computer-based teaching is no different.

FOCUS ATTENTION AWAY FROM COMPUTERS WHEN NECESSARY.

You can't compete with the technology for the students' attention. The best defense against engaging in this losing battle is preparation. All activities should be choreographed, with time built in, preferably at the beginning and end of class, for public announcements. Nevertheless, there will be occasions when you have to interrupt an activity to get students back on task, to revise an instruction, or to give an explanation. Whenever you do need to address the class, request that students turn away from their computers. Computers are many things, including toys, and students find them irresistible and may end up unintentionally fiddling with them when you are trying to speak. Take a position in the room where you can see all the students and where they can see you.

ALWAYS RUN A PRE-CLASS CHECK.

Before every class, call up the programs you intend to use to be sure they are still set up to run the way you planned.

Class Management Tools



Class Assignment as an Aid to Class Management

Class Assignment files are an invaluable tool in the day-to-day operation of the electronic classroom. By establishing daily routine, Class Assignment fosters student independence. Class Assignment files flesh out the framework of your syllabus and allow you to respond flexibly to your class as it develops. They also give you an on-going record of activities and assignments.

It's a good idea to post a new Class Assignment before each class. The current assignment appears automatically as soon as each class member logs in. We further suggest that you post the assignment as far ahead of time as possible. This will enable students who arrive early (and they will!) to log on and get to work without having to wait for you to deliver instructions personally.

Class Assignment files encourage independent learning by:

- creating a routine that helps students structure their time
- allowing students to begin working as soon as they log on
- allowing students to work at their own pace when possible
- providing students with an accurate record of work they may have missed while absent
- acting as an "electronic blackboard" to make essential information available in "read-only" form when students need it.

Posting an Assignment

There are two steps to creating a Class Assignment file: composing the assignment and putting it on the network for your students.

1. Use a word processor to write your assignment. Any word processor that can save files in text-only format or in Rich Text Format (RTF) will work. You can also use the Write (the word processor supplied as part of DIWE). If you're working with another word processor, remember that formatting features such as boldface, italics, etc., are lost when you save a file in text-only mode.
2. Use the **Post a Class Assignment** command from the **Utilities** menu to make this document available to your students. This procedure also puts a second copy of the Class Assignment file on the network for students who need to review it later.
3. You and your students can review previous assignment files by choosing **View a document** from the **Utilities** menu.

Suggestions for Class Assignment Files

LAY OUT THE SEQUENCE OF ACTIVITIES CAREFULLY.

Think carefully about which Daedalus module(s) your students will use to carry out the activities you've assigned, and about the order in which they'll use them. For instance, if your assignment calls for students to use Respond to review classmates' drafts, have them copy their drafts to the network before they open Respond!

USE A CONSISTENT FORMAT.

Experience has taught us that it's advisable to follow a consistent format in laying out Class Assignment files; that way students will know where to look for things, and there will be fewer misunderstandings. It doesn't matter what format you use, so long as you devise one that highlights the things you believe to be most important.

USE A CONSISTENT FILE NAMING CONVENTION.

Make Filenames Adequately Descriptive. It's a good idea to make your filenames consistent as well as descriptive. A good file naming convention for Class Assignment files might be to use your initials, an abbreviated form of the words "class assignment" (CA or Assign), and the date, e.g., JSCA1025, where "JS" represents the instructor's initials, "CA" designates a Class Assignment, and "1025" means "October 25." Macintosh filenames may contain up to 31 characters, including spaces, so the name you choose can be longer; but it's useful to conform to eight character filenames to make it easier for students who are working with Windows machines at home or in other labs.

BE CONSISTENT, AND REQUIRE YOUR STUDENTS TO BE CONSISTENT.

It's also a good idea to establish some sort of naming convention for all the files you require your students to turn in to the network. That way, you and your students, and any staff members who may be assisting students, will be able to locate course materials more easily.



Mail as an Aid to Class Management

Mail is a flexible yet simple electronic mail system that opens up two-way written communication between you and your students, among your students, and even between your class and other classes that share the network with you. Messages may be addressed to specific individuals, to peer groups, or to all members of the class.

Instructors have found Mail extremely effective in getting students to communicate with each other, and thus in fostering a sense of community among members of the class. Because students must always address their Mail messages to someone—an individual classmate, the instructor, members of a peer group, the class as a whole—Mail helps them build up a sense of audience. Sending and receiving Mail messages also helps students to develop a sense of writing as a responsive medium. Moreover, since Mail is asynchronous (sender and receiver need not log on at the same time in order for communication to take place, as InterChange requires), it encourages them to think of writing as a form of conversation unfolding through time.

Successful collaboration depends upon free and unconstrained communication among members of the group. Getting students to talk regularly and seriously to one another about their coursework is not a trivial matter, however. Of course students talk with each other about assignments and other logistical matters, and sometimes form study groups. That is not collaborative learning, however. Virtually all of your students will have come to you with long experience in teacher-centered classrooms, where the teacher customarily controls the flow of discussion, and where most discussion is routed through the teacher—even when a student is responding to something another student has said. Students often feel, too, that they are competing for a limited supply of high grades, and that it is therefore against their best interests to cooperate too closely. Mail can be an important tool in opening up lines of communication among your students, and in mitigating the tendency to compete.

Listed below are some of the ways instructors are using Mail successfully; of course you and your students will discover new uses of your own.

Bulletin Board

Mail can serve as an electronic bulletin board on which anyone may post a notice. One of your assignments might call for students to post messages introducing themselves to their classmates and describing their previous experiences as writers. However brief or superficial these first postings may be, they will almost certainly give students a chance to say more about themselves than they could in introducing themselves orally; reading their classmates' messages will also begin building up a sense of shared experiences. These first uses of Mail can allow students to share their attitudes and experiences with writing, literature, or whatever the particulars with the course content are. Most enter the classroom with fears and doubts about their abilities, and they feel isolated, a feeling which creates boundaries among them. They do, however, loosen up and gain confidence when they discover that they share many attitudes and experiences.

Class Journal

You might consider using Mail to maintain a class journal to which each student can contribute anecdotal and other material about their writing and other things that interest them (a logical extension of what they wrote when they introduced themselves to the class). Create a conference called Class Journal and send a message to ALL inviting them to join the conference and suggesting a minimum level of contribution. Then use Class Assignment to post periodic reminders about contributing to the Class Journal.

To create a new Mail conference, choose **Start Conference** from the **Mail** menu.

Private Messages

Mail also permits class members to send private messages. Although some instructors may find private messages disconcerting, it is an important mechanism for building relationships (and perhaps for blowing off a little steam in an environment where so much is said so publicly), and it is especially important that you respect your students' privacy.

Commenting on Essays and Drafts

You may also find Mail an efficient way to respond to student drafts. It is up to you, of course, whether you wish to send such responses as private or publicly accessible messages. By responding publicly to drafts, you can continually exemplify your own conception of what constitutes useful criticism while at the same time allowing your students to see the range of your responses to their work. On the other hand, you have to balance these advantages against the risk that some students may feel humiliated by public criticism.

Connecting with Students Who Seem to be Having Problems

Students who seem to be having problems with their work often respond quite positively to a private message from the instructor. (The private message allows you to let students know you're aware that something is wrong without embarrassing them. By the same token, the student can reply frankly without fear that others in the class will read the message.)

Working with Students Who Cannot Make Your Office Hours

Many students—especially on campuses with large commuter populations—simply cannot come in during your office hours, though they often want (or need) to very badly. Mail is enormously valuable in working with these students; it brings them into the class community in a way that would be virtually impossible otherwise. You and other students can leave messages for them to read when their schedules permit, and vice versa. If your facility has an electronic bulletin board system (BBS) that supports "doors" to other components of the network, it may even be possible for students who have access to a modem (a device that permits computers to transmit data over ordinary telephone lines) to send Mail messages and thus participate in some class activities from off-campus. In this way, Mail becomes a distance-learning tool, breaking down the physical and temporal barriers (of disability or illness, of irreconcilable schedule-conflicts) that too often impede access to education.

Getting Students to Communicate with You

Students usually respond to messages from their instructors; Mail is thus a good means of engaging them in continuing exchanges outside of class time.

Taking Attendance

It is even possible to use Mail as a way of taking attendance. Mail automatically appends to each message the name of everyone who has read it, as well as the date and time when they did so. Some instructors take advantage of this feature by posting a message to ALL at the beginning of each class and requiring each student to read it. In fact, some instructors find this feature so valuable that they prefer to use Mail instead of Class Assignment.



InterChange as an Aid to Class Management

InterChange is based on a simple idea, first investigated by Trent Batson at Gallaudet University: the idea that using the computer network to hold discussions of course material would encourage the development of fluency and skill in the use of written discourse. As with other simple ideas, the consequences of this one are often startlingly complex.

On first acquaintance, there may seem to be something almost perverse about the idea of students typing away at each other when they're all in the same room and might be talking instead. More than any other aspect of DIWE, however, InterChange taps the power of the computer network, transforming the network into a medium for rich, vital, fast-paced discussions which, at their best, combine the immediacy and urgency of conversation with the stability and thoughtfulness of written discourse. Mail allows students and instructors to use the Local Area Network as a medium for communicating over distance and time. It thus helps to foster a sense of intellectual continuity and coherence as the semester goes on. InterChange discussions, by contrast, take place in "real time," that is, while all members of the group are simultaneously present and have joined InterChange.

There are a number of other important differences between Mail and InterChange. Both display a window for reading messages and, below that, another window for composing. The difference is that in InterChange the text of each new message appears in the reading window as soon as it is sent, whereas in Mail one selects a message to read from a list in the topmost area of the screen. New messages do not replace what is on the screen, as in Mail; instead each new message appears on the screen after those which have already been sent, so that one sees the full sequence of the evolving discussion. Meanwhile, students can continue composing in the editing window at the bottom of the screen without worrying that they will miss something important. Previous messages are always readily accessible; students have only to scroll back through the list to read messages that were sent while they were composing.

Most importantly, and again unlike Mail, InterChange allows everyone to participate simultaneously in the same discussion, without fear of interruption (since composing goes on in a private editing window on the participant's screen) and without fear of losing the thrust of the discussion (since all messages are always available for review).

Using InterChange for Class Discussion

The most immediate consequence of using InterChange as a medium for class discussion is a dramatic increase in the level of student participation. It is not uncommon for participation rates to approach 100%, and while some students may contribute only a single message (in contrast to the total silence the same students are likely to maintain in more conventional settings), the number of individual contributions is often three times the number of verbal exchanges in typical class discussions. The number of topics discussed is often considerably greater than would be possible in the traditional oral discussion as well. Nor is the discussion superficial: the capacity for simultaneous participation means that students can move easily among the various topical "threads," responding to one, then moving on to another, then returning to the first one as other students respond to what they have said, and so forth.

Using the anonymous or pseudonymous InterChange early in the semester allows students to communicate freely without some of the fears and insecurities associated with social interaction. Once class members become more secure with the technology and with others in the class, they have the confidence to tackle the important problems of learning and writing in a social setting.

Suggestions for Teaching with InterChange

KEEP MESSAGES LUCID AND SUCCINCT.

Lengthy manifestos require more time to appear on other screens, excluding participants from the flow of the dialogue. Also, participants generally get very excited during the discussion, and long, windy messages will be overlooked. If this is the kind of discourse necessary for a given topic, consider using Mail instead—its strength lies in managing long messages.

ENCOURAGE "RECURSION."

Students should get into the habit of scrolling back to the last message they sent after sending off a new one. If they do this, they will see what kind of response their previous message received, and they will be able to consider what comments were made while they were composing.

EXPERIMENT WITH DIFFERENT IDENTITY POSSIBILITIES.

InterChange sessions can be conducted anonymously, with pseudonyms, or with log-on names.

- Log-on names: The default setting for InterChange, this mode is most effective for peer editing and critiquing. Members of a discourse community have a social responsibility to one another. By using their true identities, students learn the function of tact and tone when critiquing other's work and comments. We suggest that anonymous peer editing sessions might be harmful because respondents would be freed from accountability.
- Working with Pseudonyms: One particular application of this technique facilitates "role playing" and experiments with voice. One Daedalus Integrated Writing Environment instructor who was teaching a unit on "Class and Language" gave the students the opportunity to discuss an issue using the voices of Hillary Clinton, police officers, William F. Buckley, street people,

etc. This activity proved to be both enjoyable and educationally important as students experimented with the various verbal mannerisms of the characters.

- **Anonymous Sessions:** These are good learning experiences. Students can enter the dialogue without the constraints caused by identification. To have students participate anonymously, have them choose the **Pseudonym...** command and delete the name from the text-entry box labeled "Enter your Pseudonym." Messages will post with a colon only on the line which usually includes the student's name. Particularly sensitive issues can be dealt with candidly and with reduced inhibitions. We advise against using this anonymous mode too early in the semester, however.

To configure the system to accept pseudonyms, the Administrator at your site must have chosen the **Set Preferences** command from the **Utilities** menu and clicked the **Pseudonyms Allowed** check-box.

Potential Problems

Using InterChange is not without risk, of course. The sheer number of participants, the volume of their participation, and the emergence of multiple "threads" during the discussion, may all threaten coherence. By the same token, discussions may get off track if students abuse their freedom to introduce any topic they like into the discussion. A few such "underlife" comments are no problem—indeed, they're much less disruptive than they would be in the traditional classroom. And students have shown themselves again and again capable of sustaining the pace and the multiplicity of focus that InterChange demands. Nevertheless, there are a number of useful techniques you can employ for managing class discussion in InterChange.

Managing the Discussion

SET GROUND RULES.

It is important to establish ground-rules for communication early in the semester. Students are usually quite willing to do so, and, with your help, the classroom community will quickly become self-governing. These guidelines need not be cumbersome: at least one instructor simply recommends that students practice the Golden Rule, and speak unto others as they would be spoken to. Such a rule may seem to risk overwhelming the discussion with mere politeness, and indeed many students are so unaccustomed to and fearful of intellectual conflict that they may treat it as an injunction to be nice. But most students are quick to recognize the importance of maintaining the conversation as a means for negotiating an understanding of complex material, and soon come to see that politeness need not be at odds with rigor, that conflicts can be worked out without sacrificing respect for classmates' feelings.

GET THE FIRST WORD IN.

A simple but effective expedient for managing the discussion is for the instructor to post an initial message well in advance of the time when the students are likely to log in and join InterChange. If scheduling makes early access to the computer classroom problematic, you can use Write to compose your initial message, save it to a diskette, and then copy and paste it into InterChange's editing window right

before class. If necessary, you can always ask your students to refrain from sending any messages until you've had a chance to post your opening message.

DEFINE A CLEAR AGENDA FOR DISCUSSION.

The Class Assignment file (discussed above) outlines the day's activities and sets them in the larger perspective of the course. In similar fashion, the opening message of InterChange sets the tone of the discussion to follow and creates a conceptual framework within which that discussion will take place. If possible, tie the agenda for the day's InterChange to topics the class has addressed previously, either in InterChange or elsewhere. Your first message should

- lay out the issues clearly and succinctly;
- make clear to the students what you want them to discuss;
- pose a challenging, open-ended question or set of questions;
- encourage the students to develop their perceptions rather than try to figure out what you want them to say.

SYNTHESIZE STUDENT COMMENTS.

The quasi-Socratic method of questioning on which we rely so heavily in traditional classrooms does not seem to work especially well in InterChange. Comments pointing out a theme that has appeared in a number of student messages and inviting further speculation on that or a related issue appear to be more effective. Such synthesizing comments can re-focus and anchor the discussion without heavy-handed imposition of control, and students are pleased to feel that their remarks have been noticed and taken seriously.

USE SMALL GROUP CONFERENCES.

A very different strategy for focusing the InterChange is to create sub-conferences and either assign students to specific ones or allow them to choose which conference they want to join. It is difficult (if not impossible) to give equal time to each of several lively conferences, so students must take responsibility for keeping the discussion on track. The instructor's opening message assumes even greater importance here, in helping the students to define the "track." The ground-rules established for InterChange in general (and, indeed, for the class as a whole) should apply with equal force in these smaller sub-conferences. The students will usually see to this decorum themselves. Because the sub-conferences are smaller, and because they are often more clearly focused on a single theme or thread, than discussions involving the whole class, students get even more opportunities to participate.

You might create a conference for each peer group, for instance. Or you can create issue-based conferences and let students decide which topics interest them most. (Topics that generate substantial interest during InterChange can become continuing Mail conferences, as well.) Students can stay in a single conference for the entire period, or move at will from one to another; or you can ask them to switch to particular conferences at a time of your choosing. It's also possible to combine small-group work and whole-class discussion: have students join sub-conferences to discuss a particular problem for the first part of the hour, and then ask them to join the Main conference to share the approaches and solutions they've developed. Or try it the other way: have the class start out in a

whole-group discussion of an issue, then break out into sub-conferences to discuss different but related issues, or different aspects of the issue they discussed during the first part of class.

Working with InterChange Transcripts

One element of the computer's ability to transform education is that it is capable of providing new orders of information about the educational process itself. InterChange participants know far more about what is going on in the minds of others in the room than is ever possible in the traditional classroom. Instructors, in particular, have unprecedented access to their students' thinking. InterChange moves fast, however, and it is often difficult to sustain a clear sense of the whole discussion while the session is in progress.

DIWE provides a solution to this problem: compiling the individual messages that make up an active InterChange session and putting them all into an individual text file. The resulting transcript file may then be distributed to students or other interested parties, either in print form or on diskette. (Distribution arrangements depend on local funding and staffing arrangements.) Instructors, of course, will want to review the transcripts to clarify (and in some cases to correct) the impressions they formed while the InterChange was in progress. The transcripts also provide valuable diagnostic material, as well as a storehouse of ideas for future discussion (as suggested above, topics that generate great interest are candidates to become Mail sub-conferences), possible essay topics, and so forth.

You can also give InterChange transcripts as assigned reading. Students, too, enjoy and benefit from reading over InterChange transcripts. They derive a heightened sense of ownership from seeing their words in print. Like the instructor, students will see in the transcripts interesting ideas and connections they had missed in the heat of the moment. At the same time, the transcripts contribute to the developing sense of community by enabling students to see their own messages in the perspective of the InterChange as a whole, even as they see themselves in relation to their classmates. They read their own messages, then, as contributions to a larger conversation. Since the transcripts also provide a permanent record of discussions that have taken place, they help to create and reinforce a feeling of continuity. Therefore, we strongly recommend that you make the transcripts a regular part of the reading you require of your students.

DIWE and the Writing Process

We have discussed some of the ways in which the student-centered electronic classroom calls for expansion of the teacher's role. Nowhere is this expansion more evident than when it comes to guiding your students to an understanding of the writing process in all its richness. There are several issues here. First, of course, comes the necessity to map out the process in a way students can understand—to define its stages so their distinguishing features are clear, while at the same time conveying a sense of their fluidity and of the smoothness with which experienced writers make their recursive movements from stage to stage. Then there is the social dimension of writing, a dimension for which the electronic classroom is uniquely suited. And, finally, there is the computer itself: what role can or should it play in the writing process? how can the computer support the different kinds of activities that constitute the process, and how can it support recursive movement on the writer's part—not only between, say, invention and revision, but also between individual and collaborative work?

Increasingly, students come to college with at least some previous history of computer use. Many of your students may well have used a word processor. However, they are most likely to have used it merely as a kind of fancy typewriter, a machine that helps them (or so they think) to achieve higher grades by allowing them to submit cleaner, neater work to their overburdened teachers. In much the same way, many of your students will be at least slightly familiar with the terminology of the writing process. Yet while many of them will have carried out various kinds of pre-writing activities, few will have made effective use of their pre-writing when they came to write a draft, and even fewer will have understood revision as calling for anything more than correction of surface errors. By the same token, some will have experience with group work, but most will have done the bulk of their work privately, in a sort of secret dialogue with the instructor.

The Daedalus Integrated Writing Environment has been designed to help instructors address these problems in a variety of practical and effective ways. In addition to the powerful tools for intra- and inter-group communication and collaboration provided by Mail and InterChange, DIWE also includes separate modules supporting each stage of the writing process—Invent for invention and planning, Write for drafting and re-drafting, Respond for peer review. Using

these tools brings students to a clearer understanding of the component processes that make up the writing process. And because DIWE allows students to work with several files simultaneously—even if each file was created with a separate tool—the software helps them visualize the dynamic relationship of invention and planning to drafting and revision, and thus helps them understand the recursiveness of the writing process. For the same reasons, Daedalus software offers great flexibility to the instructor; the ability to have several files open at once allows you to craft assignments that encourage your students to regard the computer as an integral part of their writing processes and to do the best work they are capable of—which is often considerably better than they suspect.

Below are some specific ideas on how to use different Daedalus programs at different stages in the writing process. [See the User's Guide for description and details on how to use each module.]

The Writing Process: Invention



Invent as an Aid to Invention

Some instructors worry that students may use computers for work they should be doing themselves. You needn't fear that Invent will in any way relieve your students of responsibility for developing their own ideas, however. The program simply presents a series of prompts, and provides a space for students to respond and a means for collecting those responses in forms students can use as they proceed toward completion of a given writing activity. The software does not pretend to evaluate student responses in any way; instead, it invites students to do so for themselves. The program's power lies in the way it couples the ease and convenience of assembling the student's pre-writing with a continual invitation to self-evaluation. If you wish, you may have students use Invent fairly intensively during the first part of the course and then, once you see that they have internalized effective invention strategies, you might encourage them to use more open-ended tools such as Write or Mail for invention activities.

The Daedalus Integrated Writing Environment comes with twelve sets of "ready-made" prompts which guide writers through persuading, informing, exploring, and expressing. These are adequate for many occasions. However, many instructors prefer to create their own prompt series tailored to specific assignments. For those instructors, we provide an external utility called PromptManager. This external utility uses a SuperCard stack to create an Invent or Respond prompt series. (For details on using PromptManager, see page 50.)

A Few Cautions

DON'T SUBSTITUTE THE SOFTWARE FOR YOUR TEXTS.

First, inexperienced computer users are often tempted to believe that everything they need to know is "in the computer." This assumption is far from true: make sure your students understand the importance of using the software in conjunction with—not instead of—the texts you have asked them to read and work with.

GET FAMILIAR WITH THE SOFTWARE YOURSELF.

Second, in all likelihood, your students will quickly learn how to move through Invent's menus and prompts and windows. That doesn't mean, however, that they will as easily learn how to use the software effectively, especially with more advanced activities like switching back and forth between files while drafting—inexperienced writers rarely refer to their plans and notes when they draft, and you may actually want to show your students the advantages of having both a draft-in-progress and their earlier explorations available at the same time. But they'll need advice well before they get to that stage, and we urge you to experiment with the program yourself so that you'll be better able to help your students get the most out of it.

SHOW YOUR STUDENTS HOW TO USE THE SOFTWARE.

Third, students will often be using Invent when they're working alone, outside of class, so it's particularly important that they understand what they're doing.

- Point out to them that explanations of how the software works are available through the **Help** menu, while explanations of the prompts can be obtained by choosing **Explain** from the **Invent** menu.
- Encourage them to respond fully and candidly to the prompts, and urge them to read the explanatory material before plunging ahead.
- Remind them that they needn't—and perhaps shouldn't, especially at the beginning of the semester—complete the whole prompt series at a single sitting (it can be discouraging to see, at the end of an hour's hard work, that one is only on prompt 5 of 12). Make sure they know how to stop and save and resume work.
- Show them how they can move recursively through what they've done, revising earlier prompts, changing purpose statements, and so forth; encourage them to experiment and play with the software so as to find out what it can do and what they can do with it.
- Encourage them to try out the different prompt series, so they can see for themselves how different lines of questioning lead to different ways of constructing the topic, and thus make more informed decisions about what they find most useful.
- Read and respond to the work your students do with Invent, and get your students involved in reading and evaluating one another's work as well. That way, they'll be in a better position to see what a full response looks like.



InterChange as an Aid to Invention

While Invent is a powerful tool for invention, guiding individual students through a rigorous and systematic exploration of a possible topic, there are times when the situation calls for divergent thinking—the rapid generation of diverse ideas from different points of view. Oral discussion is the usual mode for situations like that; but InterChange offers powerful advantages when the ultimate goal is to develop material students can use in shaping their essays.

The same features that make InterChange so powerful as a medium for class discussion—the coupling of conversational immediacy and the stability of written discourse; the possibility of simultaneous participation by all students; the ease of student-to-student communication; the ability to review and respond to what has already been said—make it an equally effective tool for invention. You may want to coordinate individual invention activities in Invent with social invention in InterChange. For instance, you might begin by holding a InterChange session on a general topic that students will write about, and then have them use Invent for further exploration of specific ideas that interested them in the course of the discussion.

Large Group Brainstorming

Have all the students join the Main conference, at least for a short period (say 20-25 minutes). Then, in the interest of focusing more closely on specific issues, it might be a good idea to have the students break out into separate sub-conferences. (You might experiment with reversing this sequence, too: have the students go into sub-conferences for the first 20-25 minutes, then ask them all to join the Main conference to discuss the ideas each group developed.)

“Brainstorming” is a popular invention technique, but its effectiveness is often hampered in the traditional classroom by the dynamics of group discussion — only one person can talk at a time. As the discussion moves along, previous comments tend to fade away and good ideas presented at the beginning of the session could be forgotten or overlooked; consequently, the participants walk away with only hastily scribbled notes or a fading verbal memory of the session. InterChange has numerous advantages over traditional large class brainstorming in that all participants are “heard” (read); no one has to wait a turn, thereby eliminating the frustration of having an idea become irrelevant as the direction of the conversation changes; participants can break off into sub-conferences when their ideas converge; participants can scroll back through the “conversation” and focus on particular ideas and comments; and most importantly, a complete transcript of the session is recorded. Participants can get print-outs of the conference, can cut various sections from the record and paste it to their diskette, or copy the entire transcript to their diskettes. The transcripts then become sources that writers can use in their drafts.

Small Group Conferencing

Although large group InterChange conferences are dynamic and exciting, they can also become unwieldy and unfocused. If the purpose of the invention activity is brainstorming and divergent thinking, then the large group activity can be very useful. However, if the activity calls for more focused discussion, small group conferences may be more appropriate. The instructor may create a number of conferences (GROUP1, GROUP2, GROUP3, . . ., or “Hill” “Ginsberg,” or “Thomas”), and students with shared interests can join these conferences for discussion of their topics.

Under most circumstances, it's probably best to set up the conferences in advance—so that you can be sure of having time to compose and post an initial message that will define the scope and purpose of the conference and clarify for the students what they are to do. It won't always be possible, however, particularly if you prefer to set up issue-oriented conferences that focus on topics students have developed in the course of a large-group brainstorming session.

In that case, you might give the students something else to do for a few minutes while you set up the appropriate sub-conferences and post an initial message in each one. (Remember that you can say virtually the same thing to each group. To save time, you can compose the message in Write and paste it into the editing window of each sub-conference in turn, adapting it as necessary to allow for the different topics your students will discuss.)

Transcripts as a Basis for Writing Essays

InterChange transcripts themselves often provide an important source of material for student essays. Students can include particularly effective quotations from their classmates, for example; and, of course, they may want to use things they themselves said during the course of a discussion. Have them summarize, analyze, and quote these messages. Ask them to compare female responses and male responses to gender issues. Ask them to summarize the knowledge that was created by the session.

CREATE A SERIES OF RESPOND PROMPTS TO GUIDE STUDENTS IN READING AND ANALYZING TRANSCRIPTS.

Using transcripts in this way helps to formalize students' developing sense of themselves and their classmates as knowledgeable speakers whose words on a given subject may carry weight beyond the immediate context of the discussion. This emergent sense of authoritative voice may seem an obvious or even trivial way to use the transcripts. But it will be neither obvious nor trivial to students, who rarely regard themselves as authorities on academic subjects and are unlikely to have encountered such transcripts before, and who are in any case unaccustomed to making effective use of source material of any sort. It is unlikely, then, that they will immediately recognize ways to put the transcripts to use in their more formal writing. If they do, so much the better!



Mail as an Aid to Invention

Mail also offers powerful tools that can extend the reach of invention activities by allowing students to work synergistically together. Like InterChange, Mail allows students to collaborate, to exchange and respond to ideas. But because it is asynchronous—that is, because senders and receivers of Mail messages do not need to be logged on at the same time, as they do in InterChange—Mail makes it possible to sustain the dialogue for an indefinite period, from a single day to a whole semester. This time factor introduces an element of deliberateness that is sometimes difficult to manage in the heat of InterChange. As we noted earlier, Mail also permits inter-group collaboration so that, for instance, two instructors could develop an assignment calling for students in their respective classes to work together, using Mail as a principal medium of exchange so as to minimize problems caused by conflicting schedules.

As with Invent (and indeed with all other Daedalus modules), it is unwise to assume that students who know how to read and send Mail messages will therefore know, also, how to use Mail to enhance their effectiveness as writers. While exchanging ideas and information with colleagues may be virtually second nature for you, it is likely to seem highly unnatural to students, at least at first, and you'll do well to coach them.

Sharing Invent Files

Students can easily paste their Invent files into Mail's editing window and, from there, send them as messages addressed to an individual classmate or the instructor, to a peer group, or to the class as a whole. The specific sequence students will follow to share their Invent files will depend in part on how you choose to structure the assignment (for instance, you might already have instructed students to save their Invent files as text, thereby obviating the first step), and in part on what modules are open at the time the student sends the message. Students can follow the instructions in the online User Help.

Once the student has sent the file as a message, other students may read and respond to it, suggesting ways to develop particular ideas, offering information, raising questions, and so forth; the student can then incorporate these responses in further invention activity, or in a draft.

Posting Bibliographic Materials and Other Documentation

It is also possible to use Mail to create a communal "knowledge base" that students can use and add to throughout the semester as a source of information and ideas for their essays. Students can post annotated bibliography entries as Mail messages, for instance. This communal knowledge base might serve several purposes. First, over time it builds up a substantial bibliographic base that students can take advantage of when they need information for something they're working on; at the same time, it heightens their sense of how much information is potentially available to them. Second, it gives them a chance to see what sort of annotations their peers have done and to compare notes when, as inevitably happens, two or more students annotate the same source. Third, it allows them to respond to entries that interest them. And it may give them—and you—ideas for essays they might want to write, or present issues they'll want to research further.

You can make the knowledge base perhaps even more substantial (as well as changing its character) by requiring students to transcribe short passages from the sources they're examining, and to compose brief notes explaining why they found a particular passage interesting and how they think it's relevant to the concerns of the course. Students can then freely incorporate material from this storehouse into their essays, provided that they give proper credit both to the author of the text they are quoting and to the classmate who found and transcribed it.

These activities may be coordinated with BiblioCite when it's time for students to prepare formally correct bibliographies or Works Cited pages.

Developing Ideas Collaboratively

A writer may create messages reflecting his or her initial ideas on a topic, and then engage classmates (including the teacher) in a dialogue about the ideas. After writers have sent their original messages, peers can reply to the message by offering suggestions for development or details the writer may not have considered, or they can refute the writer's premises, thereby forcing the writer to defend and clarify the idea. This dialogue can continue for the entire writing process, or for the entire semester for that matter. The writer can then create a personal record of the dialogue which created information for her, and she can print it out or copy it to a diskette for contemplation during the first draft stage.

The instructor can facilitate the social invention interaction by designing activities that create dialogue. For example, require students to respond to at least three peers' initial messages, then respond to the responses. In essence, the class will have created a "pyramid" of ideas.

This activity might be especially valuable in the later segments of the course, when students have at least partially internalized the invention strategies suggested by Invent and their textbooks, and are therefore better able to take advantage of Mail's open-endedness.

Conferencing

Mail conferences can be set up much like those in InterChange. Unlike InterChange conferences, however, Mail conferences may be sustained indefinitely. As in InterChange, conferences may be organized around specific issues (including issues that have drawn persistent attention during InterChange discussions), or around peer groups; they may also be organized for specific assignments or specific kinds of information (e.g., bibliographic materials could be posted under a "Bibliography" conference, which might in turn be open to students in all classes that meet in the computer classroom on condition that they contribute to its development).

Responses to Freewriting

Many instructors use Mail to encourage peer responses to freewriting exercises. Freewriting, a popular pre-writing technique, can be done using Write, and the document can be turned in to the network. Peers would examine this piece of writing using the **View a Document** command under the **Utilities** menu, and then they can respond to it using Mail. Standard questions for peers in this activity are: What is the most interesting part of this freewriting? What is the best written part? What common strand or characteristic seems to dominate? Again, teachers can structure this type of activity by ensuring that peers respond to at least three freewritings, and that they comment on one another's responses.



Write as an Aid to Invention

Freewriting

Have students free-write for ten minutes or so, then save the files. They can later revise what they've written, adding or subtracting material as they deem necessary. And of course they can post what they've written as a Mail message to solicit feedback from their classmates.

Peer-feedback to Freewriting

An effective way of adding a social, collaborative element to freewriting invention is by having writers copy their effort to the network, having peers copy the freewriting to their diskettes, and having them use the bold and underline features of Write to identify especially interesting ideas or well written passages. When peers have completed this feedback, they copy the altered version back to the network, where the writer can pick it up and consider the peer's suggestions.

Electronic Journals

Journals have traditionally been popular in writing classes, and students get practice creating and manipulating text by using Write to maintain electronic journals. The beauty of the electronic journal is that students can publish their journals and share them with the entire class. The class can then respond to them using any of the techniques discussed previously.

Blind Typing

Some students find blind typing especially liberating, and are quite surprised to learn how much they can produce in just a few minutes when they are relieved of the temptation continually to read and re-read what they consider to be weak, inadequate beginnings. Simply use the brightness control to dim the monitor for a short period.

Outlining

Outlining can be an effective follow-up to other invention activities; once students have completed work in Invent, for example, they might find it valuable to create a rough outline reflecting the apparent structure of their responses. While Write does not provide integrated outlining tools of the sort available in more powerful word processors, students can still create subject headings and re-arrange their material using ordinary cut-and-paste techniques.

The Writing Process: Composition



Write as an Aid to Composition

The Write word processor is, of course, the primary DIWE tool for composing. Write provides standard editing and formatting options: students can cut, paste, and copy blocks of text, as well as change fonts, text styles, line spacing, and margins. The program also accepts text-only files created with other applications, and can create text-only files which can then be further edited using other word processors.

The design of Write is deliberately simple, however, in keeping with the Daedalus Group's conviction that word processing is best treated as an adjunct to the writing process rather than as an end in itself. This deliberate simplicity yields two valuable results. First, students find it very easy to learn and use, as with other Daedalus modules, so that the anxiety many of them feel about writing is at least not compounded by the frustration of trying to master a complex word processing application. The ease of learning and use, in turn, makes it possible for them to use Write successfully in combination with other Daedalus modules.

ENCOURAGE STUDENTS TO COMPOSE AT THE KEYBOARD.

Once again, we must stress that learning how to manipulate a program's menus and commands is not the same as learning how to use that program to enhance the actual work of drafting an essay. It is extremely important that instructors do all they can to encourage students to use the computer throughout the entire

writing process. This point may seem to go without saying. However, many students continue to compose their drafts in longhand, only transferring them to the word processor when they are nearly ready to turn in their work. This is true even when the students have done extensive preparatory work in Invent, and even when they have become accustomed to using InterChange and Mail; it suggests the extent to which many students regard composition of a "formal essay" as something completely divorced from the processes of communication and ordinary acts of language.

Insisting that students should use the computer for the entire writing process may sound like an unwarranted re-assertion of teacher control, but in fact it's a plea for both conceptual clarity and mere practicality. As implemented in the Daedalus Integrated Writing Environment, the electronic classroom is constituted by the continual production and exchange of text across the network. Drafting in longhand runs counter to the basic premises of the electronic classroom because it hinders that exchange (here we encounter certain limits, both of manuscript technology and of information technology). The process of writing essays is where everything you and your students have been working on in Mail and InterChange and Invent comes together; it is hardly the moment for them to abandon all that and revert to manuscript, with all its emphasis on transcription and the difficulty of modifying the text once it has been fixed on the page. It is, moreover, impractical: reverting to manuscript renders students' pre-writing—or at least the files containing their responses to Invent, as well as anything they may have sent or received in Mail or developed in InterChange—effectively inaccessible, since material from those files cannot readily be moved into manuscript.

Some students will experience considerable difficulty in trying to make the transition from their scribal habits to the habit of composing at the computer keyboard. The difficulty of making that transition is very real—but it is also short-term, and in most cases fairly easily surmountable; the difficulties attendant upon not making the transition may, in the long run, be far more debilitating. It follows, then, that instructors should teach students how to use Write effectively as a tool for composition—not by teaching word processing in isolation from everything else, but rather by integrating it as thoroughly as possible into the curriculum and designing activities in which students use the word processor as a means of engaging with important components of the course.

TEACH STUDENTS TO MOVE BLOCKS OF TEXT.

Experienced writers routinely experiment with different ways of organizing work in progress; it's a commonplace to note that this capability is where word processing has its most immediate impact—for experienced writers. But while global revisions of this sort are very much a part of the experienced writer's composing process, inexperienced writers usually limit themselves to local or surface-level changes, both while they are drafting and when they revise. This practice is to some extent a carry-over from manuscript composition, where changes of any sort are difficult and time-consuming, and where changes involving wholesale re-organization demand re-copying virtually the entire manuscript. It may also be a by-product of the emphasis on format to which many students are accustomed. Because they are not in the habit of making such structural changes in their manuscripts, students aren't immediately struck, when they begin using a word processor, by how easy it has suddenly become to move a block of text from one

end of a text to the other. They are struck, instead, by how easy it is to control the appearance of the text.

Some instructors regard the ability to alter the text's appearance as a real problem, something students do instead of working on their writing. But the fact that students enjoy playing with format may be turned to advantage. If you find that many of your students are playing unproductively with format at the expense of more substantive matters, you might try getting the students involved in a discussion of which drafts are more or less legible. More importantly, a student who knows how to change the format of a block of text has necessarily acquired an important general principle—that of defining a block of text and then carrying out some operation on it. From there it's a short step to the idea of cutting the block out of its present location and pasting it back in somewhere else. That is, it's a short step from experimenting with surface appearance to experimenting more productively with structure.

TEACH STUDENTS TO WORK WITH MULTIPLE FILES.

Without the ability to manipulate blocks of text, students will be unable to take full advantage of one of DIWE's most important features—the fact that it's possible to work with more than one module at a time, and to switch from one to another with a simple keystroke combination or a click of the mouse. In other words, students can compose their drafts in Write while keeping other files open on their screens. The file might be an Invent file, or a Mail message in which they had explained an important concept to a classmate in a particularly effective way (or vice versa), or one containing valuable material such as a quotation from a source listed in the class bibliography; it might be a file of rough notes. They may even have an InterChange transcript open, either for reference or because it contains something they want to use in the draft. In this way, DIWE enables students to visualize more clearly the dynamic interplay of invention and composition, and helps them integrate the two processes more fully.

Students won't enter your classroom knowing how to take advantage of the ability to work with several files simultaneously, nor are they likely to recognize the advantages of doing so. You can guide them to that recognition, however, by developing activities which require that students build a draft document by cutting and pasting material among several different files.



BiblioCite as an Aid to Composition

BiblioCite serves a number of purposes in the writing classroom. It acts as a reminder for writers as to the kind of information required for bibliography entries. If the writer does not include the publisher, for instance, BiblioCite writes "N.P." on the entry.

BiblioCite also frees student writers from spending inordinate amounts of time on the particulars of formatting bibliographies. All they need to do is enter the proper information, and the program will provide them with a properly-formatted works cited page.

Teaching MLA/APA Styles

At a glance, student writers can see the difference between MLA and APA styles.

Click on the **Bib Style** radio buttons in the BiblioCite window to see the current record displayed in APA or MLA format.

Teaching Annotated Bibliography

BiblioCite also includes a small note-taking section, accessible by clicking on the “Note” icon at the bottom of the window. Here, student writers may include three or four sentences to be used as annotations to the normal bibliography entry. If they want to include these notes on the works cited page, they need only to click on the “Include annotations on works cited page” button. BiblioCite places these annotations immediately after the period of the main entry.

The Writing Process: Revision

Effective revision depends first upon effective critique, and second upon being able to take full advantage of it. And because it is in critique that the social dimension of writing reveals itself most clearly, Daedalus software offers several different methods of generating useful, responsible peer critique as well as a means of incorporating material from these critiques directly into revised essays.

We noted during the discussion of drafting that inexperienced writers rarely make large-scale structural changes while drafting their essays. This practice often holds true even when students are consciously trying to revise their drafts: inexperienced writers continue to concentrate upon surface features and sentence-level problems, while largely seeming to overlook discourse-level problems of organization. This seems to be as true for students who revise with a word processor as it is for students who revise the old-fashioned way—and it will remain true so long as response from others pays more attention to surface- and sentence-level problems than it does to the global structures of the essay. It is also the case that peer reviewers attend primarily to mechanical and grammatical problems—unless, of course, the instructor helps them to conceive their task in different terms. The problem in helping students learn to revise effectively, then, is to help them recognize that different concerns are appropriate at different points in the process. If we want students to understand revision as a re-conceptualizing of the essay, it makes little sense to ask them to focus on errors of grammar and syntax and spelling—many of the offending sentences will disappear during revision anyway. The goal, then, is to shift the attention of both student author and peer reviewer from local issues to larger structural concerns, and to defer consideration of local problems until the essay is close to final form.



Respond as an Aid to Revision

Students are generally unaccustomed either to giving or receiving rigorous, systematic critique. Many students respond to the phrase constructive criticism as an oxymoron: for them criticism of any kind is by definition negative and destructive. It's very important, then, that students have a clear understanding

of the situation they enter into when critiquing someone's work. They must clearly understand that the purpose of critique is to provide classmates with responses that they can use to improve their essays. Encourage reviewers to think about the kinds of responses they hope to receive, and urge them to give the same valuable feedback they want for themselves.

It is crucial that peer reviews be honest—and it is equally crucial that they be polite. Polite doesn't mean wishy-washy, nor does it mean avoiding negative feedback. It does mean that peer reviewers should take care to criticize the work and not the person who has done the work. Responses should focus specifically on what students have actually written and on the reviewer's response to it, and should avoid speculation about the writer's intentions. It's not much help to say, "Your essay's pretty good, but I don't like paragraph 3 much." It's far more helpful to say, "I thought it was confusing when you started talking about X in the third paragraph, because the first two paragraphs were about something else and I didn't see how the new topic was related."

HAVE STUDENTS PRACTICE ON ANONYMOUS FILES.

Since students are generally not experienced editors, they need to be taught how to read one another's papers critically, and how to respond to them tactfully, honestly and productively. Before using any of the programs or activities for the purpose of revision, allow students to practice them collaboratively on anonymous file essays. Students will then learn how to use Respond, how to use the critical apparatus to read critically, and learn the language of constructive criticism. Be sure to review with the class their practice critiques, to guide them on using the appropriate language, and to make sure everyone understands how to use the apparatus. They will then be ready to respond effectively to one another's papers.

MOVE FROM MORE-GUIDED TO LESS-GUIDED HEURISTIC.

Another effective way of teaching peer editing and critiquing skills with Daedalus programs is to move from the guided evaluation heuristic (Respond) to more open ended techniques using Mail and InterChange. Respond will serve to teach students what effective peer editors look for and how they respond. Once critical reading skills become habitual, students are ready to move to more free-wheeling response methods.

DISCUSS STUDENTS' CRITIQUES.

Students should understand, too, that the process isn't finished just because they have responded to a series of prompts. It's also important that peer reviewers get feedback about their reviews, so that they learn what effect their comments have had and how they have struck the recipient. It might be useful, after each essay has been completed, to devote part of an InterChange session to a discussion of critique. The goal of such discussions should not be to provide a forum for students to complain about the critiques they received, but rather to encourage them to work together to develop a shared understanding of what makes for effective critique. You may wish, instead, to institute a system of formal responses to peer reviews, a system which some instructors have found very valuable.

CUSTOMIZE PROMPTS.

You will probably want to customize the prompts for the type of paper being critiqued (i.e., personal narrative, persuasive, expository, comparison, etc.) or for the level of revision appropriate for the stage of the paper. For example, you may want special prompts for first drafts that focus on macro concerns like audience, content, and organization. You may want another set of prompts focusing on style and tone for the second draft. Finally, you may want special prompts concerned with mechanics for the third draft.

For directions on how to customize the questions that Respond asks of the students, see page 50.



Mail as an Aid to Revision

Mail is an excellent forum for reviewing and commenting on peers' draft essays. They can easily import drafts written in Write into Mail.

Writers can copy the essay to the clipboard using the **Edit** menu's **Copy** command and then **Paste** the essay into the Mail message window and send it as a message, addressing it either to the class as a whole or to a specific peer reviewer.

The peer reviewer can then scroll through the draft and write a response, sending it to the draft's author as a reply to the message containing the draft.

Alternatively, writers may turn in their drafts and peers can read the writer's paper and respond to it. Choose the **View a Document** command from the **Utilities** menu. The way the peer responds can be guided either by the teacher or by students' prior experience with Respond. This method also allows peer reviewers to focus their critiques on what they regard as the most important issues without having to set them within the framework of Respond's prompts.

The major difference between responding to drafts with Respond and with Mail (besides the lack of prompted guidance) is that Mail permits writers to reply to the responses of their peer reviewers. There can be an unlimited number of peers responding to a draft, and writers can create a dialogue about their drafts by defending their papers, asking for clarification and concrete examples to support peers' responses, and articulating how the peers' comments have aided them in re-thinking certain elements of the topic, arrangement, style, purpose, etc. Peer-editing with Mail is inherently more social than with Respond because the writer has an opportunity to respond.

Mail by nature invites more personal responses than Respond. It is probably wise, therefore, to defer such open-ended critique until students have done a fair amount of work in Respond or have otherwise demonstrated that they understand how to provide candid feedback while respecting their classmates' feelings.

You can also combine Respond and Mail. Have your students use Respond for the actual peer review, and then ask them to place the resulting file into Mail and send it to the author of the draft—who may then respond to the reviewer, opening a more extended dialogue about the draft.



InterChange as an Aid to Revision

InterChange offers a forum for an altogether different kind of critique, allowing student authors to see a wide range of responses to their drafts within a relatively short time-span. You may want the whole class to discuss a single draft in the Main conference, though it is probably more effective to set up sub-conferences so that peer groups may discuss drafts written by their members.

The basic procedure is as follows: The writer composes a draft and copies it to the network. Form groups of three to five students and ask all members of the group to read the writer's text, using the **View a Document** command under the **Utilities** menu. The members of the group, including the writer, engage in a discussion about the paper. Over the course of several days, all members of the group will have the opportunity to have their drafts critiqued by the group. To make this technique work, though, the group members must be very familiar with the various criteria for critiquing a draft.

Group critique can be very valuable, especially in clarifying which responses are idiosyncratic and which are more widely shared, but it can also present some hard lessons: it's rough on the ego when a whole group responds negatively to a draft. There is considerable risk of ego-damage attendant upon using InterChange as a forum for critique, so it is vital both that students understand the necessity of commenting on the draft while respecting their classmates' feelings and that they monitor their own discourse carefully.



Write as an Aid to Revision

Written Peer Critiques

Of course, peers can write essays about the drafts on their word processors and then share the evaluative essays through the network. Bruffee, for example, prescribes a comprehensive series of written peer critiques in which peers first describe the writer's paper, then evaluate its structure and technique, and then evaluate the content of the draft. Along the way the writer responds, defending the draft, clarifying any points the readers seemed to misinterpret, critiquing the peers' responses, and finally revising the draft based on the feedback. For Bruffee, this developmental peer critiquing process is the center of the collaborative learning course. While his system is designed for the traditional paper and pencil classroom, the technique can be greatly enhanced with Daedalus software. The logistics of passing papers back and forth can become quite complex. DIWE, however, allows smooth transfer of various drafts and evaluative critiques, thereby eliminating the logistical problems that sometimes bog down complex collaborative learning activities.

Out-of-class review

Peer editors often find creative ways to use Write. In addition, peer editing on the word processor can create flexibility for a busy lab. DIWE is network-based—students can use it only in the computer classroom. They can, however, use their personal copies of Write to critique one other's work outside of the lab.

Peer-editors may copy the appropriate drafts from the network to their own diskettes, take the diskette to another lab on campus (or use their own computer if they own one), print out a copy of the draft, use one of the peer critiquing techniques discussed below, and copy the responses back to the network so the writer can receive the feedback.

Templates

The teacher can create a series of templates for responding to drafts, which the students copy to their diskettes. The templates can use the same questions as Respond, or they can be customized to focus on a certain objective or a certain stage of the writing process. Peers load templates on Write, respond to the items, and rename the completed document. The original copy of the template will remain intact, and the completed exercise can be copied to the network during lab hours or at the beginning of the next class.

Peer Highlighting

Another peer feedback technique, especially effective at the later stages of revision when style and mechanics are emphasized, asks the peer to highlight or “flag” elements of the writer’s draft that might be or should be revised, rewritten, or edited. For instance, if you are encouraging use of the active voice, you could ask peers to underline all forms of the verb “to be,” boldface all nominalizations, and place (parentheses) around sentences that contain passive constructions. Peers would then save the highlighted text and copy it to the network during free lab hours or during the next class. After reading over the highlighted copy, the writer would then set out to correct problems the peer identified.

Spell Checker

To make sure their papers are free of spelling mistakes, students can use Write's Spell Checker* by selecting **Spelling** from the **Utilities** menu. They can also use any of a number of style checkers in order to get effective feedback on their essays, but these programs must be used with caution. Many will highlight passive voice, prepositions, gender specific language, and redundancies. Some will give students a concordance, charts of their sentence lengths, paragraph lengths, and essay readability level. But remember, such programs only offer feedback and are often inaccurate; the student must still decide to fix the problems, if he/she knows how.

Concordance

DIWE's concordance gives writers feedback about the words they have used. It makes no attempt to flag passive voice and other usage "errors," however. The concordance gives writers a list of all the words they have used, both in order of frequency and alphabetically. Have your students get periodic feedback about the nature of their writing and use these results as one small way of charting stylistic progress throughout the term.

* English Thesaurus is provided by Proximity / Merriam-Webster. For spelling, words are checked against the 144,000-word Proximity/Merriam-Webster Linguibase®.

“Publishing” Completed Papers

After the paper has been revised and re-written in its final form, the final version should be "published," or copied to the network. It is usually worthwhile to dedicate a class day to public perusal of the final drafts. Students may read and offer their final responses on the overall effectiveness of the papers. This, however, is not the time for critical comments; the students comments should be positive or congratulatory. If they can't think of something positive to say, have them say nothing. Your students can do this by combining **View a Document** and Mail.

Studying Literature with DIWE

Students in literature classes engage in many of the same activities that concern students in writing classes. They read, respond, take and defend positions, make and evaluate claims, develop arguments – and of course they write. As in the writing class, these activities are often enhanced by use of the Daedalus Integrated Writing Environment. DIWE is particularly useful in supporting some of the social views of literary criticism such as reader-oriented theory. A social view of literary interpretation states that meaning is created by the reader or, in Stanley Fish's term, by an "interpretive community" of readers. The social interaction facilitated by DIWE constructs an "interpretive community" by enabling the dialogue that negotiates meaning in literary texts.

Suggestions for Teaching Literature in the Electronic Classroom

ASSIGN READING OUTSIDE OF CLASS.

While "cold" readings sometimes make sense, especially to evoke initial responses to texts, students should generally have the opportunity to read and think about the selection before they participate in a Mail or InterChange session. Viewing texts on their screens can serve to remind them of their thoughts and give them the opportunity to cite specific lines.

KEEP TEXTS TO BE EXAMINED SHORT.

If you decide to experiment with "sight reading," don't ask students to examine long texts for the first time in class. Poetry works quite well, and short works or passages from fiction are recommended. You might not get the results you want if you go much over two or three pages of text.

ENCOURAGE DIVERGENT THINKING.

Encourage conflict, debate, and negotiation. Don't permit students merely to state an opinion or interpretation and exit the conference. Encourage them to

draw connections between their responses, interpretations, and opinions and those of their peers. Help them recognize and honor their differences by defining them more clearly and by asking them to refer to specific elements of the text(s) they're discussing – otherwise they're likely to get entangled in arguing over personal preferences in ways that don't contribute to the creation of a fuller understanding of what they have read. Try to avoid the temptation to resolve disputes by providing "definitive" interpretations – offer information and explanations when they're needed, and let the students work things out for themselves. They'll do a surprisingly good job of it.



Mail as an Aid in Literature Study

Analysis of Text Using Mail

Mail permits students to engage in thoughtful discussion both of texts assigned as outside reading and of texts they are encountering for the first time in class. For example, students can use **View a Document** to examine a file on the network and offer their initial responses and interpretations of the text in Mail messages. When they have completed their initial messages, they should review peers' responses, comment and reply to those, and then send further messages either arguing and offering further support for their initial interpretation or revising their interpretations to reflect the influences of the critical community.

Conferences on Literature

Another good early use of Mail in the literature class is to establish conferences concerning readers' attitudes about literature, the role of the reader in interpretation, and the nature of meaning. Such topics may seem too abstract for students in introductory courses. However, conferences like these give students their first opportunity to explore some of the critical issues involved in their role as readers – i.e., their role in creating meaning – and allow them to share experiences with other members of the discourse community. Mail conferences early in the semester may thus help to initiate the social interaction and relationships the community will need to prosper.

Conferences on Specific Texts

Through Mail, students can engage in semester long dialogues about specific texts. For instance, instructors teaching the same text can create a Mail conference to share between classes. Students from all sections may contribute to these conferences. At the end of the semester, instructors may ask students to write research based literary papers, and the students may be directed to use the Mail record as a source.

Conferences Concerning Literary Themes

Some literature courses focus on thematic currents in literature. Instructors can create conferences for the themes to be examined during the course, and students can contribute comments relating each text to the conference theme.

Conferences on Literary Movements or Periods

Depending on how your course is organized, you might want to set up Mail conferences devoted to specific literary movements (e.g., Naturalism, Romanticism, Symbolism) or periods (the Elizabethan period, the 18th century, the Harlem Renaissance). Students would use these conferences to share information about such periods or movements, thereby creating a richer context for more closely focused discussion of specific texts.

Bibliographical Subconferences

Mail has been used with particular success in creating bibliographic data bases for use by entire classes, or even to be shared among several classes. One instructor created a subconference in which students contributed annotated bibliographies of critical works on James Joyce's "The Dead." Eighteen students were required to contribute three entries each, hence creating a selected, annotated bibliography of 54 items concerning "The Dead." Although there was some overlapping, these differences among the annotations for the same articles served as a topic of discussion. The students used this bibliography when they wrote their literary research papers on "The Dead." The students' abilities as researchers were greatly enhanced as they pooled their resources. Of course, this type of activity can be used in any class in which students are required to write research-based papers.

To create a Mail conference that can be shared by many classes, choose the **Start InterClass Conference** command from the **Mail** menu.



InterChange as an Aid in Literature Study

InterChange can be used to conduct modified versions of the activities suggested for Mail:

- discussions of attitudes about literature
- discussions of class readings, including short texts on display during the InterChange session
- discussion of common literary themes
- discussions of critical issues
- the authority of the interpretive community — using transcripts as data for literary papers

InterChange Transcripts and Literary Study

InterChange transcripts are a valuable source of continuity in the literature class, helping students and instructors alike to keep track of issues that have been discussed and to see how individual viewpoints, as well as the viewpoint of the class as a whole, have changed over time. As in the writing class, literature students will find in the transcripts a wealth of materials they can use in composing formal essays. Be aware, however, that students will not turn automatically to InterChange as a resource — they will have to learn to trust their own insights and those of their classmates, that what they have seen and said is

worth something. It will be up to you to construct assignments that encourage them to “mine” their transcripts, to study the ways in which the class has negotiated difficult or controversial texts and topics, to recognize areas of consensus or continuing dissensus.



Invent &



Respond as Aids in Literature Study

Literature teachers may also wish to create their own Invent and Respond prompts to lead students through readings of literary selections from various critical perspectives. The creative teacher can design prompt series which reflect New Critical, traditional, reader-oriented, ideological and other types of textual interpretations. You may also create prompts to guide students through a critical reading of InterChange transcripts.

Working with DIWE and Other Programs

Integrating diverse aspects of classroom activity, the Daedalus Integrated Writing Environment provides a powerful set of aids to teaching and learning. But DIWE does not and cannot serve every purpose or meet every need, and many instructors have developed effective techniques for using other programs in the classroom. Some of these have been developed specifically for use in writing or literature classes; others are commercial products aimed at a more general business market, but adapted to pedagogical ends by creative teachers and their students. The Daedalus Group encourages instructors to experiment with ways of using DIWE in conjunction with other software to enhance student learning.

The following brief list is based on successful projects carried out by instructors at various campuses, using DIWE in tandem with other software. The list is intended only to suggest possible activities; it is hardly exhaustive. What you and your students will be able to do will depend on the capacity of your equipment, the way your network is set up, on your knowledge and willingness to experiment, and on the availability of technical support.

Suggested Activities

- Have your students scrutinize their own or others' texts with the help of appropriately designed software. For example, grammar and style checkers like those now bundled with major commercial word processors are by no means infallible, but they may have the benefit of encouraging sentence-by-sentence scrutiny and may thus help students to discover and solve problems they wouldn't otherwise have seen. If your computers have the capacity to run these programs concurrently with DIWE, students might even discuss the sentences in InterChange. Alternatively, you can use textual database software to create concordances and search for patterns in a literary or other texts, including student work. Again, have students use InterChange or Mail to discuss what they're finding.
- Have students create a hypertext linking diverse materials – e.g., student-authored essays written in Write and saved in text-only or ASCII format,

bibliographic annotations, excerpts from discussions carried out in InterChange or Mail, excerpts from other texts, etc.

- Use a desktop publishing program to create a collaboratively authored book, containing InterChange transcripts and student essays. Or have the students collaborate to produce a *zine*.
- If your lab has Internet access, ask students to search the Internet for materials pertinent to assigned readings and the essays they will be writing. Or have them log in to an on-line library catalog to develop a bibliography.

Quick Information on DIWE Commands

DIWE has three user levels: Students have access only to the commands necessary for each of the tools in DIWE. Instructors have access to commands for class management. Administrators have access to commands for setting up classes, managing logins, and setting site preferences. When you log in as an Instructor, you'll see these additional menu items. For instance, the **Utilities** menu adds three commands:

Utilities	
Class Assignment	
Turn In a Document... View a Document... Copy a Document...	
Change my password...	
Make Concordance... Dictionary... ⌘D Spelling... ⌘Y	
Post a Class Assignment... Compact InterChange... PromptManager...	

Instructor-level commands {

Instructors also have additional commands in Mail and InterChange which are not available to students. This section explains how to use each of these commands and how to complete the basic tasks which most teachers use in the classroom.



Class Assignment Documents and Archives

Posting & Archiving the Class Assignment File

1. Compose the text of your Class Assignment using the Write word processor or another word processor.
2. Save your document (if you're working with another word processor, save your document as ASCII Text or using Rich Text Format. Remember that if you save as text, you'll lose bold, italics, and other formatting information).
3. Choose a meaningful filename – Remember that the name will be used in the program for the archived version of the file, and that you will overwrite your previous archived file unless you choose a unique filename.

NOTE: It's best to set filename conventions which will make it easy for students to find and use Class Assignments from earlier in the term. You might choose the date or the week of the term:

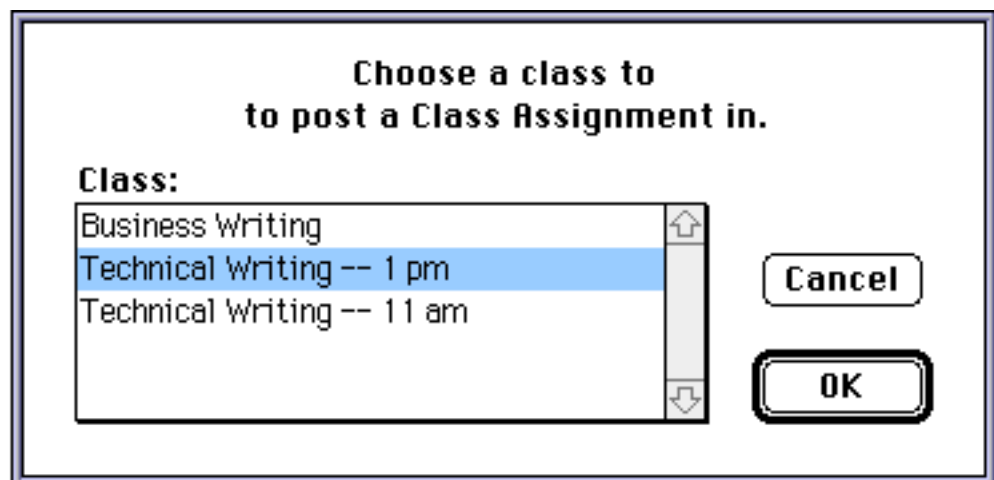
16Sept

Week1

Assignment 1 -- 17 October

Macintosh filenames can be up to 31 characters long; however, if your students will need to copy the file to PC-formatted floppies to use later, it is better to stick to shorter 8.3 filenames – that is, an eight character filename and an three character file extension.

4. Select the **Post a Class Assignment...** command from the **Utilities** menu.
5. Select the proper class from the list of classes in the dialog which appears (shown below), and click the **OK** button.



6. Using the file-open dialog box, find and select the file you want to post as the Current Assignment.
7. Once you've highlighted the file, click the **OK** button. The file you've chosen will be posted as the Current Assignment, replacing any existing Assignment. In addition, a copy of the file will be added to the archives for your class (Use the **View a Document** command to read these files).

Removing the Current Class Assignment

To remove a Class Assignment, post a new Class Assignment using the **Post a Class Assignment . . .** command. The current Class Assignment will be deleted from automatically.

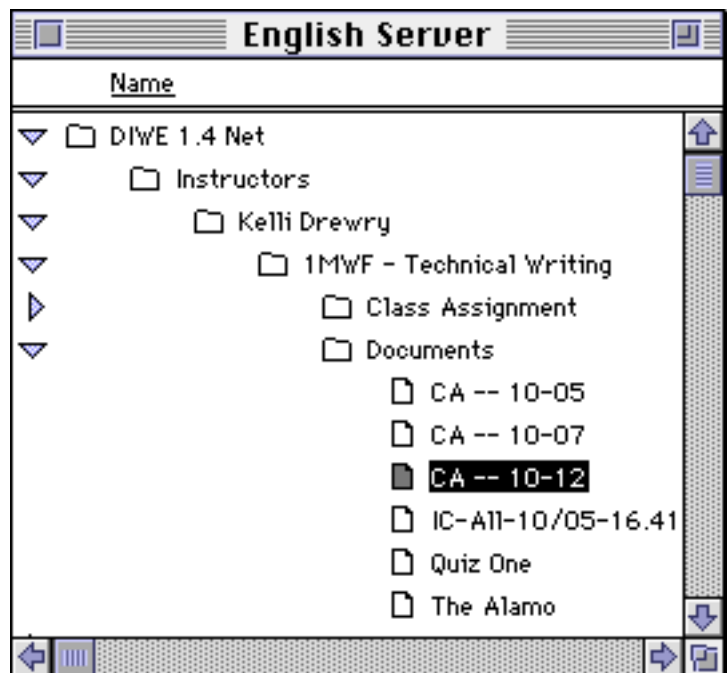
Deleting the Class Assignment and its Archived Version

In order to remove the assignment completely, you have to post a new assignment, and then delete the archived copy of the assignment from the Documents Folder for your class.

1. Follow the steps above in the "**Posting & Archiving the Class Assignment File**" to compose and post a new assignment. This process will replace the Current Assignment file.
2. Choose the **View a Document** command from the **Utilities** menu, and select the name of the Class Assignment which you want to delete.
3. Choose the **OK** button to view the file.
4. If the file which is displayed is the Class Assignment which you want to delete, make a note of its filename indicated in the titlebar for the document.
5. If the file which is displayed is not the Class Assignment which you want to delete, repeat Steps Two through Four until you find the correct filename.
6. Choose the **Quit** command from the **File** menu to exit the program.
7. Since you'll be deleting files from the server, check with your Site Manager to see if you have the right network access rights and to be sure that the Manager knows you will be making changes.. In addition, you should back-up the existing files for the program before making any changes – just in case you accidentally delete the wrong files.



8. Using the Finder, navigate to the Instructors folder on your file server.
9. In the Instructors folder, double-click on your folder (this folder should have the same name that you use when you log into DIWE).
10. Within your folder, double-click on the folder for the particular class where the assignment was posted.



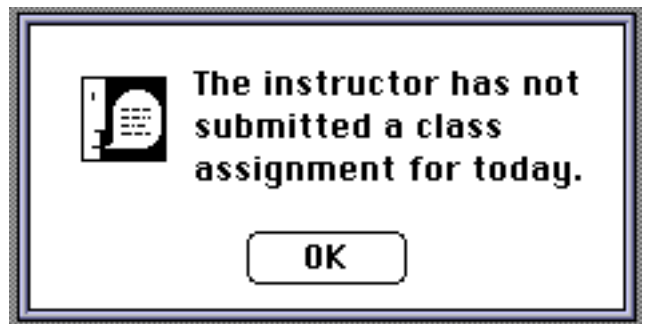
11. Double-click on the Documents folder and find the archived copy of the Class Assignment (this should be the filename you noted in Step Four).
12. Once you've highlighted the file, drag it to the Trash on your Macintosh desktop.
13. Choose the **Empty Trash...** command from the **Special** menu to remove the archived file.

Resetting the Class So No Class Assignment is Posted

If you want to reset the Class Assignment without posting a new assignment, you need to delete the Current Assignment file using the Finder:



1. Since you'll be deleting files from the server, check with your Site Manager to see if you have the right network access rights and to be sure that the Manager knows you will be making changes. In addition, you should back-up the existing files for the program before making any changes – just in case you accidentally delete the wrong files.
2. Using the Finder, navigate to the `Instructors` folder on your file server.
3. In the `Instructors` folder, double-click on your folder (this folder should have the same name which you use when you log into DIWE).
4. Within your particular folder, double-click on the folder for the particular class which needs to have the archived assignment removed.
5. Double-click on the `Class Assignment` folder.
6. Highlight the `Current Assignment` file which is enclosed in this folder.
7. Once you've highlighted the file, drag it to the Trash on your Macintosh desktop.
8. Choose the **Empty Trash...** command from the **Special** menu to remove the current assignment file. After this file is deleted, you'll see the message "The instructor has not submitted an assignment for today." when you log into your class and when you choose the **Class Assignment** command from the **Utilities** menu.





Invent and Respond Prompts



Invent and Respond come with 12 prompt series, but you're likely to want to write your own questions. To create your own series, you'll use the PromptManager program, a separate SuperCard application.

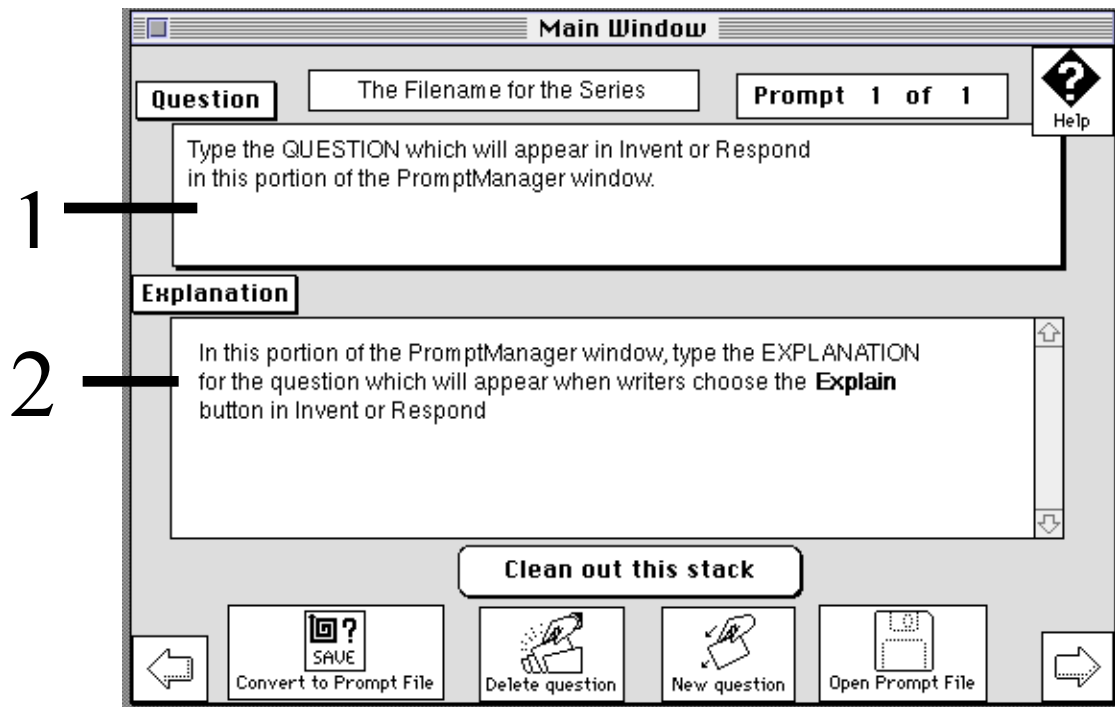
Running PromptManager



You can run the PromptManager utility by choosing the **PromptManager...** command under the **Utilities** menu or run the program outside of DIWE by double-clicking on the PromptManager Icon (shown above).

PromptManager Window Navigation

PromptManager has two areas where you will enter text:



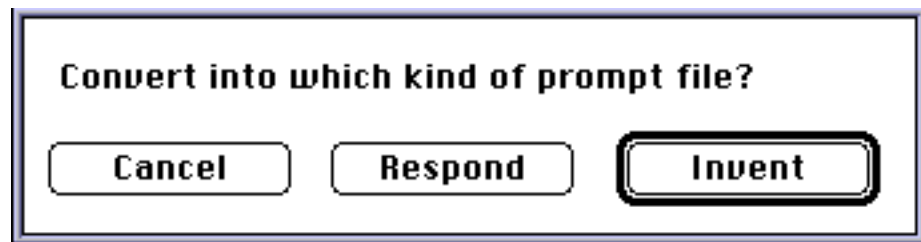
The buttons across the bottom of the window provide the commands for the program. The **Help** button in the upper right corner opens the program's online help file. The arrow buttons in the lower left and right corners move you to the previous and next questions (respectively).

Creating a New Prompt Series

1. Select the **Clean out this stack** button, which will erase all cards but the first one. NOTE: the first card can never be deleted.
2. Move your cursor to the **Question** window and type the question which you want to appear in Invent or Respond. You can use conventional **Cut**, **Copy**, and **Paste** commands under the **Edit** menu when entering this information.
3. Tab to the **Explanation** window, and type the explanation for your question.
4. Use the **New question** button to add cards anywhere in the stack and the **Delete question** button to delete cards anywhere in the stack.

NOTE: You don't have to number your questions. PromptManager numbers them for you, keeping track of the number in the upper right corner of the window.

5. When you're finished creating and editing the raw text for your prompt file, choose the **Convert to Prompt File** button.
6. In the dialog which appears, click the button for the type of the Prompt File you've created:



7. In the File-Save dialog which appears, give the file a name and locate the folder where it is to be saved.
 - If you're working outside the DIWE classroom, save the file to a floppy diskette and copy it to the `Question Series` folder when you have access to the server.
 - If you are working in the DIWE classroom, you can save the file directly to the `Question Series` folder. (Check with your Site Manager to be sure you have the necessary access rights to save files to the server).

NOTE: Your file must be in the `Question Series` folder on the DIWE classroom's network fileserver to be accessible to your students.

Adding Topics to Your Prompts

Invent files can be composed so that they include the specific topic which the writer is working on. For instance, one writer might enter the topic NIKKI GIOVANNI, so that writer would see questions like this in Invent: "How do you feel about NIKKI GIOVANNI? When did NIKKI GIOVANNI first interest you?" Another writer might enter the topic MOTORCYCLE HELMET LAWS, so that writer would see questions like this in Invent: "How do you feel

about MOTORCYCLE HELMET LAWS? When did MOTORCYCLE HELMET LAWS first interest you?"

To compose Invent prompts which have this capability, you need to include a special code in your questions where you would like the user's topic to be inserted:

- In your question, type [T] wherever you want the writer's topic to be inserted. Type all three characters, bracket-T-bracket.
- Treat the [T] code just like a regular word, that is, separated by spaces or punctuation – however the user's topic will appear.

To yield the examples above, you'd enter this question in PromptManager:

How do you feel about [T]? When did [T] first interest you?

NOTE: Respond prompt files do not have topics to be inserted in the questions, but Invent prompt questions do.

Customizing an Existing Prompt Series

1. Choose the **Open Prompt File** button.
2. In the File-Open dialog which appears, navigate to the file you want to edit.



NOTE: If you're editing a Prompt series in the `Question Series` folder on your network fileserver, check with your Site Manager and others using the software to see if you have the necessary network access rights and to be sure that you are not making changes to a file which is being used by someone else at your site.

3. Use the **New question** button to add cards anywhere in the stack and the **Delete question** button to delete cards anywhere in the stack. You can use conventional **Cut**, **Copy**, and **Paste** commands under the **Edit** menu when entering this information.
4. When you're finished editing the prompt file, choose the **Convert to Prompt File** button.
5. In the dialog which appears click on the button for the type of the Prompt File you've created (see picture on the previous page).
6. In the File-Save dialog which appears, give the file a name and locate the folder where it is to be saved.
 - If you're working outside the DIWE classroom, save the file to a floppy diskette and copy it to the `Question Series` folder when you have access to the server.
 - If you are working in the DIWE classroom, you can save the file directly to the `Question Series` folder. (Check with your Site Manager to be sure you have the necessary access rights to save files to the server).

NOTE: Your file must be in the "Question Series" folder on the DIWE classroom's network fileserver to be accessible to your students.



Mail Lists

When you are logged in as an instructor, you will find four commands under the Mail menu designed to help manage your Mail lists: **Start Conference**, **Start InterClass Conference**, **Optimize this List**, and **Open Archive List**.

Mail

Search List...
Sort List...

Join Conference...
Join Interclass Conference...

Start Conference...
Start Interclass Conference...
Optimize this List
Open Archive List

Setting up a Conference

Only instructors can create new conferences in Mail (unlike InterChange, where students and instructors can make new conferences). To create a conference within your class:

1. Select the **Start Conference** command from the **Mail** menu.
2. Type a name for the conference in the dialog which appears. Conference names are limited to 31 or fewer characters. You must choose a unique name for your conference.
3. Click the **OK** button, and the new conference will open automatically.

Setting up an InterClass Conference

Any instructor at your site can also start InterClass conferences in Mail. An InterClass conference is available to all students who log in at your site. These conferences provide a nice way for you to have all the students in the separate sections you teach interact or to have students in two different classes correspond with each other (e.g., your medieval literature class shares an InterClass conference with a colleague's medieval history class).

To start a conference between classes:

1. Select the **Start Interclass Conference** command from the **Mail** menu.
2. Type a name for the conference in the dialog which appears. Conference names are limited to 31 or fewer characters. You must choose a unique name for your conference.
3. Click the **OK** button and the new conference will open automatically.

Deleting Older Mail

You should encourage students to delete messages which are out of date or include incorrect information. Students can only delete messages that a) they have sent or b) they have received – as long as those messages were sent to the exact login name which the student uses.

As an instructor or administrator, you always have the ability to delete messages from your active lists, even though your name does not appear as Sender or Receiver. It's best, however, to let the original senders and receivers take care of deleting their own messages.

To delete a previously mailed message:

1. Select the message to be deleted from the message list.
2. Click the **Delete** button.

Opening the Archive List

Each Mail conference has an automatic archive file, which collects all messages that have been deleted from the active conference. For practical purposes, messages are deleted from the Mail list, but they are actually moved to the Archive list whenever someone deletes a message. This archive allows you to retrieve accidentally deleted messages when necessary.

As an instructor or administrator, you can examine your conference's archive list by choosing the **Open Archive List** command on the Mail menu.

1. Open the conference related to archive you want to access (e.g., to access a message deleted from the MAIN conference, you need to open the MAIN conference).
2. Select the **Open Archive** command from the **Mail** menu. The archive list for the conference will appear on your screen. You can use the **Delete**, **Copy**, **Zoom**, and **Read** buttons at the bottom of the screen to work with these archived messages.
3. To return to the active conference, select the **Back to Active List** command from the **Mail** menu.

Retrieving Accidentally Deleted Student Mail

If you or a student accidentally delete a mail message, you can retrieve the message from the Archive list.

1. Open the conference from which the student deleted the message.
2. Select the **Open Archive** command from the **Mail** menu.
3. Highlight the message which the student has deleted and choose the **Read** button. The message will appear in the middle pane of the Mail window.
4. Choose the **Copy** button to copy the message to your clipboard.
5. Select the **Back to Active List** command from the **Mail** menu, to return to the original conference.
6. Choose the **Paste** command from the **Edit** menu to paste the deleted message to a new mail message.
7. Click the **Send** button and address the message to the student who deleted the message. Select the option to send the message privately if appropriate.
8. Once you've filled in the To: and Concerning: fields, click the **OK** button to send the student a copy of the accidentally deleted message.

Optimizing the Mail List

Active Mail conferences contain information used to create and update the headers which appear in the list of messages (From, To, Date, and Concerning). When messages are deleted, this header information remains in the conference files, but is no longer displayed in the program. After many messages have been deleted from a conference, this outdated information can slow down the list.

The **Optimize this List** command removes outdated information from the currently open list. You may not see any difference in performance unless you have gone weeks or months without optimizing the list.



If you use this command, you should make sure no one is running Mail since the command alters the active list. Periodically, every week or so, **WHEN NO ONE IS USING THE CONFERENCE**

1. Launch Mail by choosing the **Mail** command from the **Activity** menu or clicking on the **Mail** button on the Launcher.
2. Choose the **Join Conference** command from the **Mail** menu, and select the conference you want to optimize.
3. Select the **Optimize this List** command from the **Mail** menu.



InterChange Conferences

To manage InterChange conferences, you'll use commands under the **InterChange** menu as well as the **Compact InterChange...** command under the **Utilities** menu.

Setting Up Conferences

Everyone logged into your class can create sub-conferences – whether logged in as a student or as the instructor for the class:

1. Select the **Create a Conference** command from the **InterChange** menu.
2. Type a name for the conference in the dialog box which appears, and click the **OK** button. The conference you've created will open automatically.

Copying Discussion Starter Text into InterChange

You may have a discussion question composed in a document you've saved to your floppy diskette or elsewhere on the network, or you might want to use a discussion starter questions which come with one of the Teacher Tools collections. To copy the discussion question into InterChange:

1. Choose the **Open** command from the **File** menu.
2. In the File-Open dialog box which appears, navigate to the specific file which you want to copy the question from and select the **Open** button.
3. Highlight the discussion question which you want to use.

4. Select the **Copy** command from the **Edit** menu.
5. Choose the **InterChange** command from the **Activity** menu to return to InterChange.
6. If you want to post the question to a conference, choose the **Join a Conference** command under the **InterChange** menu to open the specific conference where you want the question to appear.
7. Select the **Paste** command from the **Edit** menu.

Creating a Transcript

InterChange sessions are initially saved as a set of individual text files, one for each message published. In order to combine that set of files into a transcript, use the **Compact InterChange...** command on your **Utilities** menu. The resulting file can be printed or shared electronically.

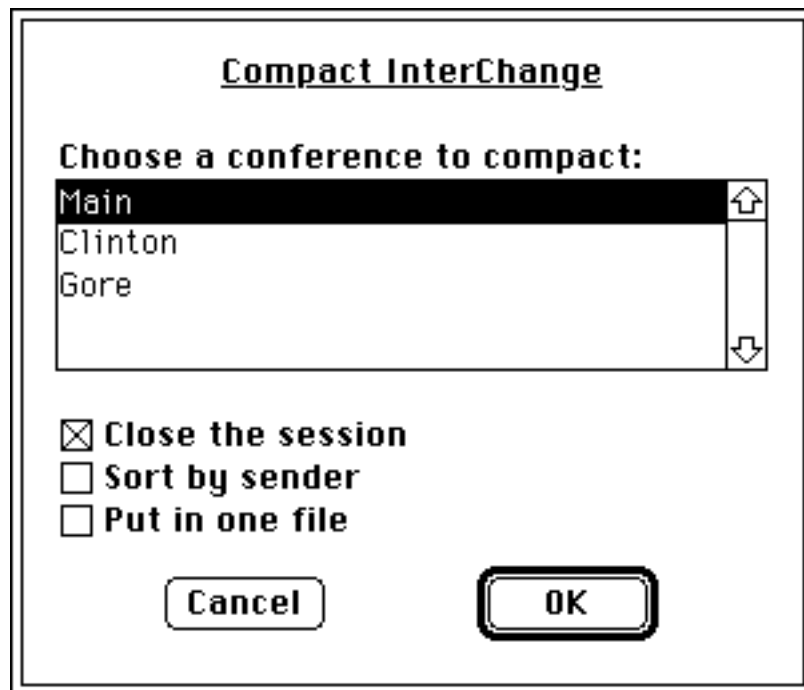


Never compact an InterChange session while students are writing or reading the files. Compacting an InterChange session while the session is still open can lead to corrupt transcripts and error messages in the InterChange session on any machines where the session is open.

Creating a Chronological Transcript

By default, the **Compact InterChange...** command ends the InterChange session and creates a chronological transcript; that is, a transcript where the messages appear in the order in which they were sent.

1. If you have InterChange conference windows open, choose the **Close** command from the **File** menu to exit the sessions. Check that no one in your classroom has the session open as well.
2. Select the **Compact InterChange** command from the **Utilities** menu.
3. Select the correct conference name from the dialog box which appears:



4. You can select multiple conferences using the standard Apple Command-click and Shift-click to select and de-select various conferences. When more than one conference is selected, you have the option of creating a single transcript which includes all the conferences or creating separate transcripts for each conference. If you want all selected conferences to be stored in a single file, check the **Put in one file** checkbox.
5. If you want to end the InterChange session so that the message no longer appear in the conference window, be sure that an x appears in the **Close the Session** box. If you want the messages to remain in the InterChange conference after the transcript is created, click the **Close the Session** box until the x disappears.
6. Click the **OK** button to create the transcript.
7. The transcript will be saved by the method below which matches the choices you made for the conference:
 - If you chose the **Close the Session** checkbox so that the session would be ended, the transcript will be saved in your `Documents` folder, and it will be named according to an automatic convention: IC (for "InterChange")-conference name-date-current time (using military time). For example, "IC-Smith-5/22-13.15" would be the Smith conference transcript created on May 22 at 1:15 PM. **Note:** The date and time for the transcript is based on the day and time when the transcript was made, rather than on the day and time that the InterChange was started or on which it occurred.
 - If you did not select the **Close the Session** checkbox and the session will remain open, a File-Save dialog box will appear. In this box, navigate to the location where you want the file saved, type a filename for the transcript, and click the **Save** button.

Creating a Transcript Sorted by Sender

The **Sort by Sender** option creates a transcript of the InterChange session which groups all messages sent by a writer together. For instance, all Kim's messages will be listed together, all Pat's messages will be listed together, and so on.

1. If you have InterChange conference windows open, choose the **Close** command from the **File** menu to exit the sessions. Check that no one in your classroom has the session open as well.
2. Select the **Compact InterChange** command from the **Utilities** menu.
3. Select the correct conference name from the dialog box which appears (shown on the previous page).
4. You can select multiple conferences using the standard Apple Command-click and Shift-click to select and de-select various conferences. When more than one conference is selected, you have the option of creating a single transcript which includes all the conferences or creating separate transcripts for each conference.. If you want all selected conferences to be stored in a single file, check the **Put in one file** checkbox.
5. If you want to end the InterChange session so that the message no longer appear in the conference window, be sure that an **x** appears in the **Close the Session** box. If you want the messages to remain in the InterChange conference after the transcript is created, click the **Close the Session** box until the **x** disappears.
6. Click the **Sort by sender** check box so that an **x** appears.
7. Click the **OK** button to create the transcript.
8. The transcript will be saved by the method below which matches the choices you made for the conference:
 - If you chose the **Close the Session** checkbox so that the session would be ended, the transcript will be saved in your `Documents` folder, and it will be named according to an automatic convention: IC (for "InterChange")-conference name-date-current time (using military time). For example, "IC-Smith-5/22-13.15". **Note:** The date and time for the transcript is based on the day and time when the transcript was made, rather than on the day and time that the InterChange was started or on which it occurred.
 - If you did not select the **Close the Session** checkbox and the session will remain open, a File-Save dialog box will appear. In this box, navigate to the location where you want the file saved, type a filename for the transcript, and click the **Save** button.

Reading Transcripts

Before you can read an InterChange transcript, you need to use the **Compact InterChange...** command to create the transcript file. Once the transcript is created, you can read an InterChange transcript by following these instructions:

To read an InterChange transcript:

1. Choose the **View a Document** command under the **Utilities** menu.

2. Choose the **This Class** button to see a list of documents for your class.
3. Select the transcript file which you want to print, and click on **OK**. Check with your teacher if you're unable to remember the correct filename for the transcript.
4. The document will appear on the screen.
5. To close the document, click on the close-box in the upper left corner of the window.

NOTE: Write can only handle files up to 32K characters. Some InterChange sessions exceed that number. If you scroll to the bottom of the Write window and discover that the end of your transcript is missing, then your session ran longer than 32K. If this happens, close the Write window, and open the transcript with another commercial word processor. The transcript file is an ASCII Text file, which can be opened with any word processor.

Copying a Transcript to Your Floppy Diskette

Before you can copy an InterChange transcript, you need to use the **Compact InterChange...** command to create the transcript file. Once the transcript is created, you can copy an InterChange transcript to your floppy diskette by following these instructions:

1. Choose the **Copy a Document** command under the **Utilities** menu.
2. Choose the **This Class** button to see a list of documents for your class.
3. Select the correct file, and click on the **Copy** button. Check with your teacher if you're unable to remember the correct filename for the Transcript file.
4. In the File-Save dialog box which appears, navigate to your floppy diskette, and the **Save** button.

NOTE: The transcript file is an ASCII Text file, which can be opened with any word processor.

Printing an InterChange Transcript

Before you can print an InterChange transcript, you need to use the **Compact InterChange...** command to create the transcript file. Once the transcript is created, you can print an InterChange transcript by following these instructions:

1. Choose the **View a Document** command under the **Utilities** menu.
2. Choose the **This Class** button to see a list of documents for your class.
3. Select the transcript file which you want to print, and click on **OK**.
4. The document will appear on the screen.
5. Choose the **Print** command under the **File** menu to print the transcript.

NOTE: Write currently can only handle files up to 32K characters. Some InterChange sessions exceed that number. If you scroll to the bottom of the Write window and discover that the end of your transcript is missing, then your session ran longer than 32K. If this happens, close the Write window, and open the transcript with another commercial word processor. The transcript file is an ASCII Text file, which can be opened with any word processor.

Controlling Pseudonyms

Your students can choose pseudonyms, or nicknames, by using the **Pseudonym...** command under the **InterChange** menu. The Administrator at your site can change the preferences for your school so that this command is unavailable. This change affects the entire site, and the setting can be changed only by someone logged in as an Administrator. Instructions are included in the Administrator's Guide.

Class Management

Dealing with Forgotten Passwords

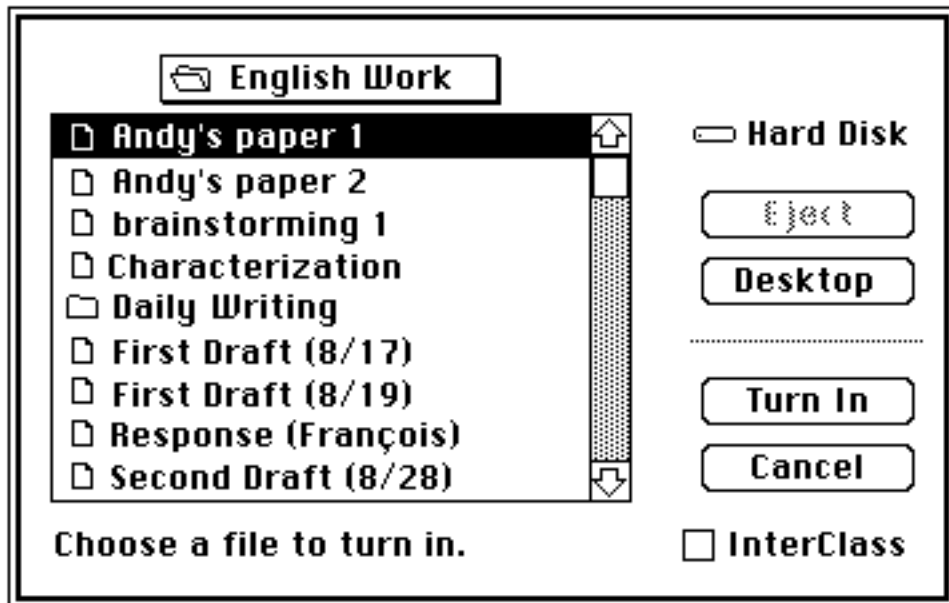
Passwords in DIWE are case-sensitive. When a student's password fails, first check to see whether the <CAPS LOCK> key has been depressed. Next, you might have the student try typing the password in all caps, in case the <CAPS LOCK> key was depressed with the student logged in.

If neither of these methods help, the administrator at your site can change the password for the particular student. Instructions are included in the Administrator's Guide.

Posting Electronic Handouts & Other Documents

You can streamline the process of providing writing assignments, readings and other assignments by using DIWE's Turn In a Document command to posts your documents to the network fileserver. Even if you provide students with printed, paper handouts, the Turn In a Document option allows you to provide students with an archive of handouts, for times when they miss class or lose papers.

1. Compose your handout. If you're working with Write, save the document using the default filetype. If you're working with another word processor, save the document as ASCII Text or using Rich Text Format (RTF).
2. Choose a meaningful filename for the document so students will be able to find the handout easily.
3. Select the **Turn in a Document** command under the **Utilities** menu. You will see the following dialog, where you can navigate to the handout:



2. Highlight the name of the file you want to turn in.
3. Click the **Turn In** button to submit the document.
4. When your students log in, ask them to use the **View a Document** command under the **Utilities** menu to read or print the handout. They can use the **Copy a Document** command under the **Utilities** menu to copy the file to their own floppy diskettes.

Managing Paperless Documents

Using the **Turn In a Document** command and the **View a Document** command, your students can submit all work for your class electronically. You can direct your students to the **User Help** command for instructions.

1. Have your students compose their papers using Write, or using another word processor and saving as ASCII text or using Rich Text Format (RTF).
2. If students have been working with another word processor, suggest that they use the **Open** command under the **File** menu to be sure that their document's appearance is as they desire.
3. Ask your students to use the **Turn In a Document** command under the **Utilities** menu to submit their papers to the class archive. Give your students guidelines about filenames to help avoid overwritten files and to make it easier to locate the specific documents.
4. Once students have submitted their documents, you can use the **View a Document** command under the **Utilities** menu to read students' papers.
5. To comment on documents, use the **Mail** command under the **Activity** menu to launch the Mail program. In the lower composing area of the window, respond to the student's document. When you send the document, be sure to use the student's exact login name, and, in most cases, to send the Mail message privately – especially if you are sending the student a grade.

Administrator-Only Commands

The following commands and privileges are available only the Administrators in DIWE:

- Adding Instructors and Classes
- Renaming Instructors, Users, and Classes
- Activating and Deactivating Instructors, Users and Classes
- Locking and Unlocking Classes
- Changing a User's Password
- Changing a User's Login Level (e.g., from Instructor to Administrator)
- Setting Preferences for Mail and InterChange, including turning the Pseudonym option on or off

In addition, Administrators have wider access to class files in DIWE. For example, Administrators can post a Class Assignment to any class at a site while Instructors can only post a Class Assignment to one of their own classes.

Getting Help with DIWE

Program Documentation

DIWE's program documentation includes three printable guides and three on-line documentation files.

User's, Instructor's, and Administrator's Guides

DIWE's print documentation includes three guides: a User's Guide which describes the tools and commands in the program, an Instructor's Guide which explains how teachers can use the tools in the program, and an Administrator's Guide which explains more about setting up and managing your site. All three of these guides are copied to your server when you install the software and are available for download from <http://www.daedalus.com/tech/docs.html>

On-Line Help System

DIWE's on-line help system answers questions about how to use the tools in the program, how teachers can use the program to reach their pedagogical goals, and what the administrator at your site will need to do to manage the system.

There are two primary on-line help files which come with the program: User Help and Instructor Help. The Program Help file explains how the tools in DIWE work. Choose User Help to find information such as how to send a message in Mail, where InterChange transcripts are stored, and how to save a document so that you can open it with another word processor.

The Instructor Help file explains commands available to the teacher and the administrator and includes teaching strategies and resources for teaching with DIWE. Use Instructor Help to find information such as how to make an InterChange transcript and what strategies are effective for managing discussion.

A third help file, Character Help, provides basic details on using non-English characters and special symbols in DIWE (e.g., how to type the letter c with a cedilla – ç – in InterChange).

To access these help files once you've logged into the program:

- Choose the **User Help** command from the **Activity** pull-down menu.
- Choose the **Instructor Help** command from the **Activity** pull-down menu to access the Instructor Help file.
- Choose **Character Help** command from the **Activity** menu to access the Character Help file.

Printing Specific Topics from the On-Line Help Files

All the topics in the on-line help can be printed. This capability comes in handy when you need a handout which tells teachers or students how to complete a task in DIWE.

To print a topic in either Help file, navigate to the topic you want to print, and choose the **Print Topic...** command under the **File** menu.

Running On-Line Help Files Outside DIWE

DIWE's On-Line Help files use the E-Help application. These on-line help files will run on any Macintosh computer which is running System 7.0 or higher. To launch one of the on-line help files outside DIWE:

1. Use the Finder to navigate to the `Daedalus` Folder at your site — there should be a copy of this folder on every workstation in your classroom.
2. Within the `Daedalus` Folder, open the `Help` Folder.
3. Within the `Help` Folder, you'll find `User Help` and `Instructor Help`.
4. Double-click on the file which you want to read, and the file should open.
5. If the file does not launch, drag the file you want to open to the E-Help Application, also in the `Help` Folder. When the E-Help Application's icon is highlighted, release the mouse button and the Help file should launch.

Copying DIWE's On-Line Help Files

Additionally, you can copy these files to a floppy diskette or to another machine to explore them when you are not in the `Daedalus` classroom — copy all the files in the `Help` Folder to set up a copy of the help files outside your classroom. Making copies of the help files available for teachers outside the classroom can be helpful for teachers who want to learn more about the program but have limited access to the server or classroom.

NOTE: *Licensing for DIWE's On-Line Help Files*

Teachers using DIWE can make a copy of these on-line help files for educational use on an office or home computer without violating the licensing agreement.

Accessing Other Resources

Additional technical and pedagogical information is available from the `Daedalus` Group WWW pages at <http://www.daedalus.com/> and by e-mail to help@daedalus.com.

Getting Additional Help with DIWE

If you have a question about using the software, whether a technical question or a pedagogical question, you can choose among these resources:

1. If you have Internet access, check the frequently asked questions and troubleshooting information on the Daedalus Group WWW page, especially for information written after the publication of this guide. The Daedalus Group web page is available at <http://www.daedalus.com/>

If you have e-mail access, consider asking on the TEACH e-mail discussion list. The TEACH e-mail list links teachers in conversation about teaching, problem-solving, and troubleshooting. To subscribe to TEACH, send an e-mail message to listproc@daedalus.com

include the subject line: `sub teach`

include the single line message:

`subscribe teach your-firstname your-lastname`

for example, `subscribe teach Jerri Stephens`

Once you've subscribed, send your questions, insights, and success stories to teach@daedalus.com

2. If you have e-mail access, but no WWW access, you can access Daedalus HelpSheets which duplicate the information available from the WWW pages. Send an e-mail message to helpsheets@daedalus.com with the subject line INDEX to see a list of the troubleshooting sheets currently available. Messages sent to this address automatically return Help Sheets with information on using the Daedalus Integrated Writing Environment. The Help Sheet you receive depends upon the subject line for your message.
3. If you have no Internet access, you can fax 1-512-452-5206 for details on obtaining the latest troubleshooting information by fax or postal mail.

Sending a Request

If you have questions about DIWE which you can't find an answer to, contact Daedalus Customer Services.

Before you contact a Customer Services Representative, gather the basic details on your machines, as noted on the Customer Support Request Form on the next page. By providing this information, you will include the details necessary to answer any questions you may have quickly. In addition to this information, the file includes questions about your site and the situation you've encountered.

Once you have gathered the information on your machines, you can

fax it to 1-800-388-8152,

send it in an e-mail message to help@daedalus.com

call the Daedalus Group at 1-800-879-2144.

DIWE 1.4 Customer Services Request Form

As you fill in the form, please be as specific as possible about your lab's set-up and the details of the situation.

Name:

School:

Phone Number:

Fax Number

E-mail Address

What is the Brand, Model, & Clock Speed for your workstations?

What is the Brand, Model, & Clock Speed for your fileserver?

What is your Networking Hardware? (For example, Phone Net, Token Ring, Ethernet, and so on)

What is your Network Operating System? (For example, AppleShare, Novell, NT, Lantastic, and so on)

What other software is running on your machines while you use DIWE 1.4? Please be sure to include information about any security programs you might be running along with DIWE (such as At Ease, FoolProof, or MacControl).

Description of Situation

1. Include a sense of the events leading up to any problem. In other words, exactly where in the program do you have difficulty? What works? What conditions seem to enable or disable the problem?

2. Indicate how universal the situation is. For instance, is the problem showing up on all machines or only a few? (If so, are the machines different in any way?) Is it occurring in only some classes or to some students? Does it happen only at certain times of day?

3. Specify how often the problem occurs — does it happen all the time? sporadically? Does there seem to be any pattern?

4. Record any error messages you see exactly as they appear on screen. Indicate what you were doing just before the error as well.

Reading More

These resources can provide background material on teaching writing in a collaborative setting, on the pedagogy of the decentered classroom, and on computer-based instruction. The list isn't exhaustive, but does provide you with anthologies and basic texts that provide a good place to begin learning more about teaching with computers.

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