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Development of Writing Across the Curriculum at Berkshire School

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Inception to Practice (Elizabeth Clifford)

At Berkshire, a private, coed boarding school for 410 college-prep students, located in Sheffield, Massachusetts, our writing across the curriculum (WAC) program has influenced the faculty and students' ways of thinking, learning, and writing since 1983. This chapter will describe the WAC program that has evolved at our school since that time, highlighting a variety of branches of the program that are evident in the philosophy and practical teaching/learning strategies we use at Berkshire. All of us who contributed to this article have developed and modified our teaching styles in different ways that we can trace to our roots in the WAC program.

During the first three years, Berkshire's WAC committee was formed of volunteer faculty from every discipline that cared to participate. We published *The Writer's Handbook*, a guide to teach students and faculty in all disciplines to use a process approach in their writing; we hoped to encourage intelligent thinking and writing, thoughtfully directed towards the author's audience. We also created a common key for corrections, which became known as "The Berkshire Hit List." During those first years, we attended conferences and held mini-workshops for our faculty, *encouraging the use of active student learning, writing as a vehicle for discovery, and "coaching" rather than lecturing as an effective teaching method.*

In 1986 we added the "T" to our committee's name. We became

the Thinking and Writing Across the Curriculum Committee (TWAC) in an attempt to broaden the scope of faculty involvement, particularly to include the mathematics and science disciplines. Since then, our committee has met weekly to discuss ways to implement cross-curricular thinking, writing projects, and teaching strategies within our curriculum, as individual teachers and as an entire school. We have spent much time encouraging the development of a grassroots network of teachers concerned with TWAC, successfully extending our philosophy beyond the bounds of our ten-person committee to an everincreasing number of the faculty at large. We have learned how much more effective it is for faculty to choose to experiment with their curriculum and teaching strategies, rather than to be forced to make changes. We greatly appreciated administrative support for TWAC when we introduced alternative methods of teaching and learning, in which students and faculty must see themselves as equally responsible for successful learning. Faculty and students now engage in more collaborative group work, use journals as a means of communication, and view learning as a process that includes thinking, writing, and revising in ways appropriate to the discipline. The process leads to better products, and both are valued. For both faculty and students, the premise that all share equally in the educational process can be very unnerving: faculty members often find it difficult to share the authority, and students balk at accepting the necessary responsibility for learning.

Since 1986, regular TWAC meetings have been a welcome source of professional enrichment and support. All of us on the committee have found that our teaching styles have developed in ways that we trace back to three ideals: *encouraging active learning, using writing as a vehicle for discovery, and "coaching" as the most appropriate teaching model.* The projects we have taken on and the changes in our teaching styles reflect the needs of our students at Berkshire and our own special interests.

The weekly meetings of TWAC provide us with a regular source of reinforcement to practice rather than to preach. We have learned by experience, still the best of teachers, that creating a list of "thou shalts" for the faculty at large is counterproductive; too forceful "encouragement" makes colleagues shudder and avoid contact with overly zealous proselytizers! Instead, the TWAC committee experiments with new teaching strategies and creates projects that serve as models; interested faculty will investigate what we're doing and adopt methods that are appropriate to their own classes or individual students. Thus, the grassroots network grows.

During the fall semester of 1991, the TWAC committee considered the concept of interdisciplinary independent study projects for seniors—in our opinion, the perfect culminating academic exercise

of a student's four years in high school. The prospect delighted us because independent study involves all three aspects of our philosophy. Certainly, a student would practice *active learning* in the process of formulating and researching a topic of choice. Writing the final paper challenges any student to synthesize all the work he or she has done, not merely to record it in a grocery list of footnotes and facts; thus, the student enjoys the potential of *writing as a vehicle of discovery*. Finally, we stipulated that the student must choose *a faculty sponsor* from each discipline, whose role is *to coach* the student in the process of narrowing the research topic, selecting appropriate research material, and then meeting necessary deadlines on the way to completion of the project. Naturally, the sponsors take part in the final evaluation of the project. At the completion of the project, students then publish their work and share it with peers by keeping it on permanent file in the library. That way current seniors would gain from each other's learning experiences, and future seniors would also have the opportunity to learn from the experiences of those who had completed interdisciplinary writing projects.

With all of the guidelines in print, the TWAC stepped back from the description of the project to discuss how to promote it. Ten years of committee experience saved us from the potential disaster of believing that all of the faculty and all of the seniors would be equally eager to undertake the projects! After presenting the project to the seniors and to the faculty, we invited them to take part. We acted upon our belief that choice is critical to the long-term success of the program. The course was offered as a second-semester elective in English. The project has started with a group of eight seniors, under my supervision as project coordinator. Students meet weekly with me and monthly with their faculty sponsors in the Writing Center, where they draft, revise, and edit their final projects on the computer. The grassroots network of TWAC is working. Interested faculty have agreed to sponsor students in subject areas of mutual interest. The TWAC committee has devised several ways to provide incentives for more seniors to take part in future years: a book prize for the best project to be given at graduation, honorable mention in the graduation program, earlier promotion of the project to juniors through interaction with seniors who participated and as a transitional experience between high school and college. I have traced this description of a project from inception to the first stages of practice to point out a few practical strategies TWAC employs and some pitfalls we were able to avoid.

Anna Romano, director of the English as a Second Language (ESL) Program, and Heather Prescott, French teacher, use journals in several ways that have grown out of their experience on the TWAC committee and graduate training.

A Community of Teachers and Learners: TWAC Philosophy Shapes the Curriculum (Anna Romano)

Writing is a thinking process. This is the basic premise that our TWAC committee is built upon. More important, however, it is the lesson that I learned once again as a teacher-researcher when I conducted a year-long study of my intermediate level ESL reading and writing class. In this class, my students read historical fiction and responded to the novels in a dialogue journal. This journal consisted of letters that the students wrote to me. I instructed them not to simply retell the story, but to respond to it. I asked them to write what they thought about the story, the characters, and the situations in which the characters found themselves. I then responded to those letters, adding my observations and asking questions. I discovered that by writing about their reading my students had become active readers and critical writers.

My students were able to think about the situations that the characters of the story found themselves in and make some inferences and judgments about those situations. In writing about the book *The Tamarack Tree* by Patricia Clapp, Shinichiro Satoh wonders,

> If Rosemary and [her] brother Derek could go to the Northern America, Rosemary wouldn't be in complicated situation. She could talk to her friends normally about whatever she wanted to talk [about]. ... Unfortunately, she have come to the Southern America where her thoughts don't belong. People in the Southern America thought the Negroes should not be free. If I was in Rosemary's situation, I would move to the Northern America, and I would fight with the people who live in the Northern America against the South. All people should have [the] right to have freedom.

In this single entry, Shinichiro has demonstrated three critical thinking skills. Shinichiro imagines how Rosemary's dilemma would have been resolved if she had gone to live in the North rather than in the South. Then he puts himself in her shoes and decides what he would have done had he been in her situation. Finally, he makes a value judgment—people should be free—and then applies it to all people, not only to the black slaves in his book.

In another entry about the same book, Yurie Aizawa writes,

> After I read *The Tamarack Tree*, I knew that even in the South, during the Civil War, there were people who were against the slavery and helped slaves escape to Canada.

This kind of information is important for Yurie to learn for two reasons. One, she has more accurate information about the Civil War,

and two, she learns that not all Southerners fit into the stereotypes created about them.

In a different entry about the same book Yurie writes,

> As I read this book, I feel that any kind of war makes people uncomfortable and I think war shouldn't be existed. I know that when war happens, there are some reasons and arguments, but still I think to kill people isn't a way to solve [problems].

In this entry, she is able to look at the consequences of the Civil War and determine that war in general is not the best way to resolve differences or solve problems. Comprehension is the skill that all my students demonstrated every time they had to write a journal entry, for all their entries required that they practice paraphrasing and summarizing.

While reading the letters my students wrote to me, I realized that these historical novels permitted them to become involved in the situations and problems of the people living in different historical periods in a way that their textbook did not allow. Furthermore, because they were able to identify with the characters in the stories they were reading, they came to a better understanding of what had occurred historically. Finally, by writing about the lives and problems of the people they were reading about, my students were able to read and write critically. It was only after having studied their letters that I realized that those letters in my students' journals were a form of literary analysis in disguise.

Journals in French Class (Heather Prescott)

I encourage my French students to use their journals to think about writing, to become more able to write about thinking, and to explore ways in which they best learn. Although some balk at first, for many the self-reflection has been useful and revealing.

My ideas for applying journal work to the beginning French curriculum were inspired by William Zinsser's book, *Writing to Learn*, which our TWAC committee read as a group. We then invited Zinsser to visit Berkshire and address our faculty on using WAC.

From the ideas generated by Zinsser's book and his visit to Berkshire, I designed a journal program for French Levels One through Three. The system has increased my ability to identify my students' needs and respond to them. It has also enhanced my respect for the process of discovery my students go through as they learn from their mistakes. A negative (spotting mistakes) then becomes a positive learning experience.

My primary goals for Level One are for the students to look critically at their work, ask themselves whether or not their writing makes sense, and learn to proofread more thoroughly. They also have to hone their communication skills by writing their responses clearly enough for me or others to understand. All of the students' work is returned to them with no numerical or letter grade on the sheet. Thus, it is up to them to peruse their tests, discover their mistakes, write about any patterns they see in their work, devise methods to improve their performance, and evaluate their own work. That is, they are using a writing to learn activity. Students in Level One write almost all journal entries in English.

In response to his own test corrections, John Jaxheimer writes:

> I was a little disappointed in myself with the results of the test (especially after feeling confident about the conjugation of all the verbs). I was surprised how much I struggled on the vocabulary. I was puzzled on part #9! I know I can do better, and I'll prove it on the next test.

John's perceptions of his performance are integral to his developing ability to see patterns in his work. He draws fairly sophisticated conclusions about the effects of his preparation and review of material. Thus, his test responses become more accurate, and his long-term retention of the concepts is more sound.

At Level Two, the students' tasks are similar to those required at Level One, with the added expectation that they write summaries of stories and dialogues we are reading. The students in French Two are also required to produce more thorough and detailed explanations of grammatical concepts. Level Two students write in both French and English—their plot summaries are in French; their grammatical essays and test evaluations in English.

In course evaluations of June 1991, French One and Two students completed the sentence, "The purpose of the journals in this class was to . . .". Their responses reveal diverse perceptions about the value of journal writing. The following excerpt proved significant because the student was able to draw a connection between the act of thinking and the act of writing, skills I try to help students hone through the journal exercises:

> The purpose [of the journals] was to give us a chance to write and therefore think about any errors that we had made on tests and other exercises. The journals gave us a chance to realize and correct our errors. (Benjamin Rood)

Many responses from Level One indicated that the journals helped because the students had to write out and think about correct responses and how to learn them. They recognized patterns in their own work.

In the advanced section of French Three, the purpose of the journals is more complex. In addition to the requirements of Level One and Two students, Level Three students frequently write assignments describing the process they go through to solve linguistic or organizational problems. Writing in journals becomes writing to problem solve. For instance, a student incorporates perceptions of different concepts in the example that follows:

> While I was taking the test I thought part one was easy, but I ... missed obvious answers: *à* + *le* = *au*. I was surprised at how well part two went, because *ces, cet, cette* and determining gender is usually difficult for me. The verbs were O.K. *Dites* and *veulent* are [forms] that I often confuse with the common mistakes 'disez' and 'voulent.' I was confident about my essay and it turned out well. The map was not difficult, but spelling, as usual, hurt my grade. I think I earned a grade in the low 80s. (JoAnn Barett)

JoAnn evinces the ability to synthesize information and to examine problems that hindered successful performance. The detail she applies to her analysis is made more readily available to her through the act of writing.

Other examples of process writing include entries from culture projects during the first semester. Students keep a record of the process they go through to do the research, glean the material, produce the outline, and write all the drafts. This way I am able to see where they need guidance and how well they are coming up with ideas on their own. Throughout the entire process, students interact and respond to each other's thinking and writing. Most of this is done in English.

June 1991 Level Three course evaluations revealed that students saw value in the journal exercises, and for different reasons. One student commented on the merit of the examination of tests. The following example reveals the specific importance of student statements to improve the quality of their work through writing to think and writing to learn:

> We could write our goals and expectations down and they would be right there always staring us in the face, reminding us of what we had committed ourselves to. (Brandi Hopper)

Using writing to learn through journals in the French classroom has been an exciting way to see students grow. Journals help students learn material because they are accountable in writing for the concepts taught to them. The journals give students the tools to learn through writing. From clear thinking, clearer writing becomes possible. My students and I feel that journal writing creates a more solid foundation for learning.

Berkshire School's Writing Center: The WAC Committee Puts Philosophy in Practice (Elizabeth Clifford)

One recent and very physical accomplishment of the TWAC committee's planning is the Writing Center, a pair of adjoining classrooms that house twenty-one Macintosh computers of various types, as well as five printers, a scanner, a Mac Recorder, overhead projection equipment and software that allows students to share screens and files. The planning, researching, purchasing, and running of the Writing Center has been accomplished by members of TWAC. Dean Ellerton and I currently share the task of running the Writing Center. Members of TWAC frequently use the facility to teach classes. Because of the grassroots network developed by TWAC during the last ten years, many faculty members from various disciplines make use of the Writing Center: for instance, chemistry, political science, ESL, English (including several senior electives taught exclusively in the Writing Center), music theory, Spanish, French, and ethics. Berkshire students and faculty write a great deal and quite well. They enjoy the natural integration of the writing process with the word processor and the facility of Microsoft Word 5.1. The integration of computers with writing, collaboration, and student interaction in the Writing Center have helped our TWAC program. During our first year and a half, the Writing Center has been an overwhelming success and a productive gathering place for faculty interested in innovative teaching methods. As we move into the next year of operation, we look forward to expanding our capacity to produce desktop-published documents, to examining the feasibility of training a staff of peer tutors to work with individual students and teachers who assign special projects, and to implementing the two-week, team-taught modules in the Writing Center for sophomores.

Hilary Russell, chair of the English department, and Dean Ellerton, computer specialist in the Writing Center and chemistry teacher, will comment on ways they have incorporated writing into their courses, and assignments that they ask students to accomplish in the Writing Center.

Computers and Writing (Hilary Russell)

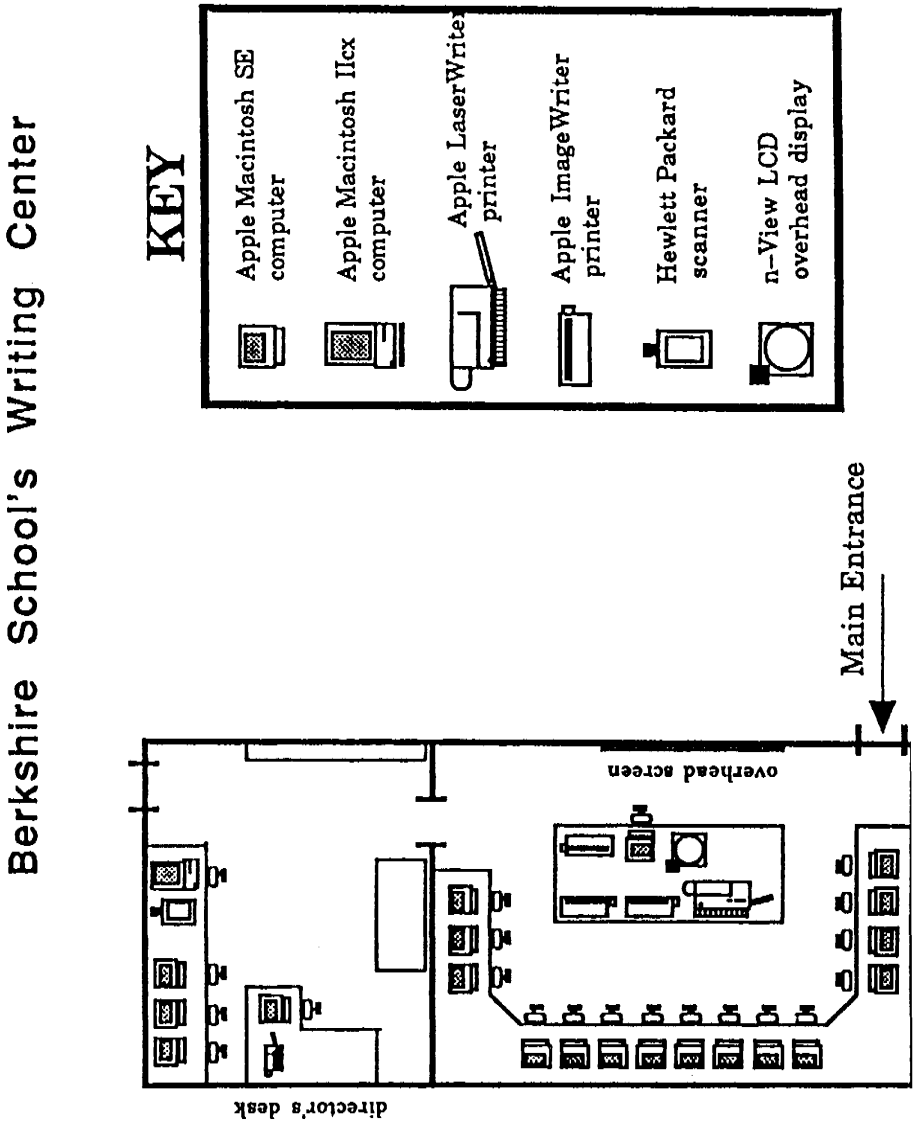
The big change in my teaching came during the 1990–91 school year in the TWAC-sponsored Writing Center. Formerly I had eschewed computer rooms, primarily because the students looked not at me but at screens and keyboards and because the rooms tend to be impersonal and too public to encourage the private activity of writing (I still

cannot imagine writing anything of personal value in a public place.) I also felt awkward looking over students' shoulders at what they were writing. (Wearing bifocals, I had to stick my nose very close to the screen to see.) Furthermore, if something broke, no one was there to help fix it. Perhaps my greatest reservation was that I felt, and still feel, that computers can distance students from teachers, the machine becoming the focus instead of the person. My ideas about the use of computers as a tool for writing were limited by the facilities that had existed before the creation of our Writing Center.

Since all of the members of the TWAC committee wanted a warm, user-friendly Writing Center, we brainstormed about how to achieve this goal. With the assistance of faculty members and students who offered suggestions for student interaction, collaborative writing, and ways of using the computers for writing in all disciplines, we managed to create the warm atmosphere. In order for students to feel comfortable when they worked in isolation on a piece of writing, we put dividers between computers, effectively creating carrels, each having its own shelf above the computer for extra books and a slide-out surface for the keyboard, thus leaving space in front of and next to the computer for texts, drafts, reference books, or other material that students may need as they word process. The result is that students work in relative privacy, undistracted by their neighbor's books, elbows, and nosy stares. If students want to interact with their teacher or classmates, the rolling chairs enable them to move quickly from private to public space with relative ease. (See Figure 16–1.)

Thinking and writing across the curriculum solved the problem of teachers looking over students' shoulders by placing a large table in the center of the room, lining the computers around three of the walls, and leaving one wall blank for a screen on which to project images from a central computer. Sitting at this central table with one's back to the blank wall, a teacher can easily confer with a student while keeping an eye on the class. Since the printers are also located on this large, rectangular table, students who want to discuss their work can simply get up, retrieve the hard copy they have sent to the printer, and move to this area to share their work with each other or the teacher. Carpeting and office chairs on rollers make all of this movement quiet and simple while aiding communication among students and between student and teacher. This mobility allows me to do something that we teachers rarely have time to do, even in schools where the student-teacher ratio is favorable—I sit down with each of my students two or three times a week and confer on a piece of writing that the student usually cares a good deal about. I am now using the computers in the Writing Center as well as in my own classroom when the Writing Center is not available for student interaction or collaborative writing. Rather than

Figure 16–1
Berkshire Writing Center Floorplan



standing between me and the students, our computers (thanks largely to the furnishing, layout, and personnel of the Writing Center) have served to bring us together.

Writing in Chemistry (Dean Ellerton)

As a chemistry teacher at Berkshire, I have been using the school's Macintosh computers to aid in the teaching of laboratory report writing for the past three semesters; consequently I have noted a dramatic improvement both in the quality of the students' word-processed reports and in their general understanding of the material presented in the laboratory. Chemistry students at Berkshire are currently required to write a portion of a weekly laboratory report on a word processor. This report is then graded not only for its scientific content, but also for its clarity and style. Although grammar and syntax are not graded specifically, students are reminded that these elements have a significant impact on the general impression of the paper and that they may be asked to revise a section of the report if these errors are excessive or the scientific content of the report needs to be rethought.

The laboratory element of the general chemistry course at Berkshire School, a weekly event, is generally a three-step process. First, on the night before the lab, students are required to write a "pre-lab." This assignment, consisting of a prepared series of recipe-like steps, is designed to prepare the students for the actual procedure of the lab. The student handwrites a pre-lab in a laboratory notebook and gives a copy to the teacher immediately before the lab session. Next, the students collect data on the day of the lab and enter this information in the laboratory notebook as well. Finally, the students are asked to answer some questions about the data collected in the lab and to write a report featuring two sections entitled "Discussion" and "Conclusion." The discussion section of the "write-up" is the student's chance to elaborate on events that took place during the lab and to comment on various anomalies or relevant observations. In this section students can think out loud and ponder the significance and accuracy of certain measurements taken the previous day. The conclusion section serves as a means for the student to synthesize the collected data and to summarize any trends, completion of objectives, error management, and so on. The discussion and conclusion sections of the final report must be word processed and submitted to me approximately three days after the actual laboratory.

Unfortunately, high school laboratory report writing has evolved into more of a spontaneous reaction than an exercise in process writing. Typical conclusions have included sentences like:

> I really liked this lab. It showed me how oxygen and magnesium react. Wow, I could hardly look at it because the light was so bright. I'm not sure why they did it, but it was really neat. I hope we can do stuff like that again.

I have recently tried to stress the concept of using writing to develop ideas—to get students to view their reports as vehicles to aid in the understanding of chemical principles, rather than as documents produced purely for a grade. The use of word processing seems to have helped with these objectives in several ways. First, it makes the idea of revising a section of the report a lot less painful for the student than in the past. Second, the physical act of going to our Writing Center seems to focus students' attention on the task at hand. Thus the writing is much more thoughtful and all-inclusive than in the past. Students now seem to view their work as a piece of *scientific writing*, rather than just a response to an assignment. Finally, students have a great deal more pride in the appearance of their work than they ever have had before. This concern for cosmetics, although apparently superficial, is vital when a student must prepare an accurate, clear laboratory report in college. Many high school science students are at a great disadvantage when they enter university science courses never having completed such an extensive report during their secondary education.

Although evidence of drastic improvement in the overall quality of laboratory reports is hard to quantify and the means of measurement are purely subjective, it is obvious from just a quick inspection of recent reports that passages such as the following are no longer the exception but the rule:

> In this lab, I learned to tell the difference between physical and chemical properties from my observations. I now realize that chemical properties are those that involve reactions with other species, and that physical properties can simply be observed with the five senses. It is also possible to measure physical properties without changing a substance. For example, when I observed that magnesium reacted with oxygen to form a new substance (magnesium oxide), I had to "destroy" the magnesium; however, to measure the density of magnesium, a physical property, I merely had to drop it in a graduated cylinder of water and measure the volume change. (Amanda Wonson)

In the preceding case, the student has had time to process the relevant data, analyze her observations, think about the ramifications of this information, and synthesize all this into a lucid conclusion about an experience. In other words, she is writing to learn and to communicate what she has learned. In previous years, I, as well as others, placed far too much emphasis on calculations and impromptu observation for this type of advanced scientific thought to occur. Now, however, the students are encouraged to use writing as the tool to

improve their analytical skills and to improve the actual process of thinking through a complex concept.

In conclusion, I highly recommend the use of process writing and word processing in the preparation of laboratory reports. The improvement in the quality of the final product greatly outweighs the time and energy expended to learn the new system for both teacher and student. In short, the results of this experiment in writing in science class far exceeded my hopes for slightly improving the thought and effort that went into producing a readable chemistry laboratory report.

TWAC Past, Present, and Future: The Effectiveness of Grassroots Committee Work (Elizabeth Clifford)

The success of each of the projects and teaching techniques described in this article can be attributed directly to the effective work of the TWAC committee. Writing across the curriculum programs thrive in schools that utilize a grassroots network to spread the word and to put philosophy into practice on a daily basis. The Writing Center, for instance, would not have been the overnight success that it is if TWAC had not provided the faculty with the groundwork of philosophy and practical teaching strategies before its inception. Because any teaching facility has to meet the needs of the faculty and students who will use it, effective preliminary study of the school's needs and training in practical use of the equipment are critical. The interaction between students and faculty is essential to such a program. Through the work of the committee and the grassroots network that has grown from it, the school's programs reflect the needs of the students and the interests of the faculty.

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