USING ROLE-PLAYS TO TEACH TECHNICAL COMMUNICATION

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INTRODUCTION

The techniques and assignments described in this chapter grow from the authors' own academic interests in constructivist pedagogy, the learning plays of Bertolt Brecht (1968), and Augusto Boal's (1968) Forum Theater. We use role-plays to generate both oral and written assignments, which fulfill two constructivist precepts. First, students learn communications best from authentic problems. Second, learning communication skills is a fully engaging activity: communication is both physical and mental. Specifically, we generate written and oral assignments from role-plays written by students and drawn from their experiences with technical communication problems.

At our school, we teach technical communication to electronics technology students. Our graduates interact with rapidly changing computer and communications technology and must demonstrate high-caliber customer service skills. Traditionally, employers value our graduates because their "hands-on" technical education enables them to "hit the ground running." Upon graduation, however, many students enter company training programs. Increasingly, these programs emphasize customer service and teamwork skills. This emphasis is because, instead of servicing mostly large-scale projects and government contracts, the electronics industry increasingly serves smaller consumers, developing, supplying, and maintaining sophisticated electronic equipment for small businesses and even individual households. Several years ago, an industry representative told one of the authors that companies are almost ready to recruit field technicians from liberal arts programs; companies were willing to provide technical training to applicants who had developed the ability to communicate with customers. In response to these changes

in industry, we have developed classroom techniques and assignments to prepare the electronics technician to "come out from behind the machine" and interact with the customer.

Briefly, in our technical communication classes, students role-play personal incidents of failed communication. This role-playing creates the opportunity for a critical distancing of their lived experience. Like Brecht's (1968) estrangement-effects—VEffekten (680)—our role-playing technique gives the audience (and in our case, the student/actor/author) an opportunity to break out of habitual ways of seeing and to observe and engage with the rhetorical choices made by the characters. The intention is for students to develop a sense of control over aspects of their lives that have reified under layers of habit and assumption. Using the techniques of Augusto Boal's (1968) Forum Theater, which developed as a critique of Brechtian theory and practice (139–142), students present and critique their role-plays. The presentation techniques of Forum Theatre empower students to critique their habitual styles of communication. The role-play exercises then become rehearsals for success.

From these role-playing exercises, opportunities for writing naturally emerge. The most usual motivation for writing is somehow to repair or prevent the problems presented in the role-plays. Because they have role-played these problems, students can better visualize the goals of their writing. Those visualizations can then be described, analyzed, and revised, in words as well as in action. Specifying the location for the roleplay—on the job or within an organization—assures that issues of organizational and technical communication become the focus of the roleplays. As teachers, we can respond realistically to this writing, posing questions about how the real audience (the audience as presented in the role-play) would react to content, style, and presentation. We become editors positioned between the writers and the audience, which is our preferred teaching position. Thus, our classes become student centered; we become facilitators of learning rather than lecturers, and students become actively and critically engaged in authentic problems of organizational and technical communication.

The following sections describe our use of role-plays, our sources, and some of the broader implications that we think this model has for college pedagogy. In the first section, "The Structure Of The Actor's Work: Creating A Classroom For Role-Plays," we discuss how we prepare students

for the work role-plays will demand of them and suggest ways the teacher and class structure can model the dramatic principles and rhetorical discretion inherent in role-plays. In the next section, "The Arsenal: Tools for the Student Creating the Role-Play," we describe a typical sequence for staging and responding to the students' first role-plays of the semester. We refer to the performance concepts of Boal (1968) and Brecht (1968) to clarify the principles and goals of this method of delivering a course in technical communication. In the next section, we describe how role-plays can lead to authentic writing assignments or enrich students' responses to more traditional, textbook-based assignments, including discipline-specific research papers. In a later section, we close with some reflections on how our experience with role-plays has guided our professional lives outside the classroom, including our responses to writing across the curriculum, case-studies initiatives, the pressures of traditional grading, and textbook selection.

THE STRUCTURE OF THE ACTOR'S WORK: CREATING A CLASSROOM FOR ROLE-PLAYS

If we set the scene carefully in the beginning weeks, many classes become self-directed, and we simply guide the work students have already committed to. We begin by introducing fundamental concepts similar to those of most technical communication classes. As we do this, we deliberately model the audience awareness and adaptation we expect from students. The objective of our first class meetings is to get students to articulate their judgments and build their confidence. If we succeed, students articulate authentic situations that guide their work for most of the semester (the subject of the next section), and they commit themselves to finding workable solutions to these situations.

Introducing Rhetorical Analysis

Our technical communication course begins with an introduction to rhetorical analysis. We want to make students aware of the considerable repertoire of rhetorical skills they already have. We lecture briefly about language acquisition and use simple, hands-on demonstrations of the power their language skills give them to organize and communicate information. A simple but powerful example: We give them a list of eight words to memorize in order. As they attempt that, we write the same words on the board so that they form a sentence and ask them to memorize the

words again. The sentence is memorized as a unit, almost instantly. They experience, hands-on, one of the most elemental and powerful innate abilities of the human brain. In lecture, we also present some tools for rhetorical analysis, ranging from the basic, traditional author-subject-audience triangle to more complex methods such as Killingsworth and Palmer's (1999) context of production/context of use (3–20).

The level of sophistication of this introduction depends on our sense of the audience we have before us. If the class is anxious to "do something," the introduction is more like a pep talk. More reflective classes do more discussion. We are ready and willing to adapt our presentation, to observe students, and, at any time, to ask the question: "Do you want to do a role-play now?" This willingness to adapt instantiates the basic lesson of our course: An effective communicator responds to the real needs of an audience. From our first meeting, we explicitly model that skill for our classes by eliciting their responses to our plans for the course and our assumptions about communication. This method does not constitute a fundamental change in most teaching styles. Most teaching is as responsive as it is directive, and our approach does not fundamentally alter the mechanics of teaching; instead, it tries to lay bare these fundamentals for students to see and use.

The goal of our introduction is, finally, to prepare students to turn technical data into technical information and to develop from knowers into teachers. Thus, our introductory lecture- demonstrations also have to build students' confidence in their ability to do the work of teaching. Sometimes, technical communication can intimidate even students with a substantial record of success in their technical courses. Technical communication is different from their technical courses both in subject and structure, and we don't try to smooth over the differences. Instead of encountering brand new technical content and a clean slate to write on, students in our courses are made to question some deeply held beliefs and break some old habits. One of these habits is eschewing ambiguity in the search for the one right answer, the one method, for solving all their communication problems. From the first day of class, our work is a matter not of finding the one right answer, but of choosing the best answer from many possible answers. We model for students the need to adapt, and we introduce a range of tools, including our textbooks and other reference material, for informing our judgments and making effective rhetorical choices.

We don't want our introductory classes or our textbook to preempt the students' own decision-making process. We want them to develop confidence by discovering and exercising the rhetorical skills they were born with. We are then able to demand that students test and revise the solutions they suggest to real problems. We try to convince them that human beings are sophisticated rhetoricians long before they are trained technicians.

Integrating Role-Plays

The way we integrate role-plays into our classroom varies from semester to semester and section to section, precisely because the rhetorical situation we face as teachers changes with each set of students. Some semesters, role-plays may serve as a warm-up for a more traditional "genre studies" class. Other semesters, a set of role-plays may bring up issues so complex that we will spend the better part of the semester on them, covering material from textbooks by way of the role-plays and conducting necessary research. In every case, however, by midsemester most classes, whether based on textbook readings or role-plays, have covered the same range of material required by our department's course description. Revision, proofreading, ethics, letter format, memo format, technical descriptions, and so forth emerge from a class centered on roleplays as consistently as they emerge from a syllabus designed around a textbook; but, in a class centered on role-plays, the control over these topics becomes a shared enterprise between teacher and students. Students who emerge from classrooms where role-plays have controlled the syllabus are as well prepared for our departmental writing assessment as those who emerge from classes that more closely follow the structure of the textbook. This preparation is because they have internalized problem-solving strategies that enable them to creatively and confidently address a broad range of technical communication tasks.

A short description will illustrate how our method can structure a semester. One semester, our classes took on the project of revising the labs in their technical courses. This project took the entire semester. It emerged during the first weeks of role-plays. In role-plays based on inschool communication problems, it became clear that students felt they were receiving poor "customer service" in the lab. When they began to explore the systematic causes of this situation, they discovered that the way the labs were written predisposed teachers and lab assistants to offer

poor customer service. For instance, cautions and diagrams were not included. When they began to rewrite the labs, they had to consider themselves and their fellow students seriously as an audience. But they also had to consider the larger academic systems within which labs are written and revised. They discovered students in the lab were not their only audience; so were the teachers who would teach (and approve) the changes, the dean who would approve the cost of recopying the labs, and so forth. Each class session began with the question, "Did we get the labs changed?" Answering this question took the entire class session and set the homework for the week. The class agenda and schedule were set by the students' real need to resolve a real problem. They used their communication textbook and their class time as resources to help them effect change, not as ends in themselves. Two products emerged from their work: new labs and a new awareness of their technical classrooms as rhetorically complex environments where students and professors have myriad roles. This authentic writing situation also supported the formal academic requirements for technical communication: students who participated in this project wrote memos, technical descriptions, procedures, and directions; they created charts, diagrams, and visuals; they learned to format documents on the computer; they made oral presentations; and they practiced audience analysis, revision, editing, and proofreading.

The students in this classroom, and in other classes where a role-play lasts a few minutes or a week, have faced the questions of engagement and responsibility crucial to generating and evaluating writing both in the classroom and the workplace. It is easy for students to dismiss rhetorical problems in which they are not fully engaged. Every teacher has worked with students who write merely to complete an assignment and please the teacher. These students can't understand why you are not satisfied when they have done everything you asked—everything, that is, except commit themselves. When presented with a communication problem in a classroom setting, such students confidently ignore it and turn it into something easier to handle, but irrelevant. A problem-solving letter will degenerate into a tirade and end in an inappropriate action, or it will degenerate into a polite, powerless, but structurally perfect "letter of complaint" and end in inaction. However, once students experience the sophistication of their rhetorical powers, they are more prepared to reconsider their first knee-jerk responses to the communication

problems we present. For this reason, the problems we present for students' consideration must be fully engaging, both mentally and physically. Such engagement emerges from student-generated role-plays based on situations often ongoing in their lives and on significant events in their working lives. Thus, even if the entire semester does not revolve around role-plays, we find them a useful way to introduce the content, structure, and expectations of our course.

THE ARSENAL: TOOLS FOR THE STUDENT CREATING THE ROLE-PLAY

Once we have set the scene for the actors' work by introducing the fundamentals of the communication situation and establishing student engagement, we turn our attention to generating the actual role-plays that are the meat of the course. We begin with a basic process, which we modify depending on the students and the progress of the semester. Students begin by generating ideas, which we review and categorize to create structure in the course. Students rehearse briefly, and the class is given a topic to consider as they observe the role-play. After each role-play, students discuss the focus topic, and then the players replay the scene, suggesting alternative actions.

Generating "Scripts"

Crucially, students generate the ideas and scripts for the role-plays from their experiences, using a process based on Augusto Boal's (1997) Forum Theater. When students generate, select, and present the situations, they become "spect-actors" rather than spectators (17). This technique empowers them to establish the problems to be addressed and leads them to take responsibility for their communication strategies. This technique also assures an authentic experience of rhetorical problem solving.

It is a relatively simple technique. For the first set of role-plays, we often ask students to describe a time they have seen or experienced a failed attempt to communicate in the workplace. For each role-play, we give the class at most a half hour to produce a script. We leave the definition of "script" wide open. The idea of student-generated, and therefore authentic, scenarios comes directly from Boal's Forum Theater (1968) technique (132). Some students create scripts that simply sketch the outlines of events; others write out complete dialogues. Once they begin to perform

their role-plays, the students soon learn that the end result of either script is the same because they must perform without the script.

Especially for the first role-plays, we generate some discussion to prepare students to write their role-plays. A couple of students almost always immediately understand the assignment; thus, as soon as we are done describing the assignment, we ask the class for an idea for a role-play, and we discuss its characteristics. Soon the whole class understands, and everyone can begin to produce a script. Usually, in a class of twenty-five we have found that only one or two have trouble getting a situation after a little thought. Students in our classes are probably older than most, and almost all students have jobs, so results may vary, but we suspect not by much. After all, the sense of what constitutes a rhetorical problem has its roots in an innate human ability to use language. Asking college students to identify a communication problem at work merely taps into the rich and varied experience they already have with language. After everyone has written a script, we collect the scripts and take them home to read and categorize. We look for three categories of circumstances because in the next class we break students into groups of three to work on their role-plays.

Discovering the Curriculum

Discovering these categories requires us to relate the rhetorical lessons we teach to the experiences of the people we are teaching. Like our course introductions, the categories we find vary from class to class, but we have never failed to find a relevant set of categories. For example, one class's scripts were divided into "failed communication between supervisor and employee," "failed communication between employees," and "failed communication between customer and supplier." Another class's scripts divided into "intentional deceptions," "ignorance about the subject of the communication," and "unintentional misunderstandings." (Sometimes we skip the classification step altogether and just go with the flow. At these times, we enjoy the rich and varied scripts and the challenge of on-the-spot analysis and act like a director or a drama critic, identifying the central *agon*, critiquing the plot.)

When we choose to find categories, as we usually do, these categories need to honor the students' authentic experiences and their ways of naming and understanding these experiences. At this point, we exert control over the curriculum. We could choose role-plays we think will lead to technical definitions or technical descriptions, proposals or recommendations. However, imposing categories like these from our textbook or departmental requirements risks diminishing the role-plays' potential for helping students uncover meaning and practice authentic problem-solving. Asking for a role-play that produced a "technical description" situation will not work because situations do not occur to students as instances for the textbook's exegesis; otherwise, they wouldn't need our course. We have learned to trust that discussions of topics like the "extended technical definition" will emerge naturally out of the work on the role-plays. This delay of academic classification helps students discover the issues and strategies of technical writing on their own and thus to adopt them as their own. The relevance of the contents of a textbook has to be discovered, with the teacher serving as facilitator, not lecturer. Indeed, concentrating on basic rhetorical problem solving makes the teaching of genres and types easier and faster because the genre is taught at the moment students are intellectually prepared for it. Once you recognize that an extended definition will solve your problem, the technique becomes as obvious as a hammer: you pick it up and use it.

At the next class meeting, after the scripts have been classified, students begin to perform their role-plays. First, we point out that the role-plays take place in "real time," so that students need to focus those scripts down to their key moments in ways that take no more than about four minutes. We return each student's script with just a number—1, 2, or 3—on it, and students form groups of three. Each group includes the author of a "1" script, a "2" script, and a "3" script, so that each group will—to the extent possible—work with one script from each category we have defined. (We do not tell the students what these categories are.)

The group then reviews each of its scripts, chooses one, and creates a role-play for it, focusing on the crucial actions. For us, this process of focusing is an application of Brecht's (1968) concept of the *gestus*, a social comportment captured in gestures, and Boal's (1968) use of participant-generated action (689). This focusing on the essential action of a scene is a wonderfully complex act of rhetorical analysis. Students accomplish it with ease. The whole process of reviewing, selecting, and "rehearsing" the actions estranges them in ways that make them more available for student interventions. This process can reinforce the students' sense of control and competence. It also prepares students to write more detailed narratives and descriptions. At the end of their

"rehearsal" time, each group will have discussed three role-plays, one from each student, and practiced one for presentation. This whole "rehearsal" is remarkably easy and quick.

The first time a class does the exercise, the selection and rehearsal can take about half an hour. After one experience, the role-plays can usually be selected and prepared in less time. Giving more time can even be counterproductive. Students' impromptu responses are most effective at communicating the main issues as soon as the "actors" have a sense of the reality of a scene. Practice here may sometimes dull the edge because students tend to want to soften the conflict. It is often the restless, nonreflective student who produces the most compelling roleplay, while the more diligent student sometimes takes fewer risks and produces a two-dimensional representation with a prepared solution. As we said, humans are naturally masterful rhetoricians and, given enough time, students will take any "case" and try to define the rhetorical problem out of existence, especially when it involves written communication. Students who resist role-plays want to wave a wand at the problem; they say, "I wouldn't write; I'd just talk to the guy" or "That's just the way it is; there's nothing I could do about it" and believe it will go away. This ability to "resolve" challenges by redefining the issues is not unrelated to Boal's (1968) concept of "magic." Magic, in Forum Theater, describes proposed solutions that are unrealistic. In Forum Theater, the facilitator, called the Joker, may interrupt a scene by calling out the word "magic" when some proposed resolution seems unreal, such as resolving an oppression by appealing to the oppressor's sense of brotherhood (139-42). The need to overcome this remarkable human ability to sidestep rhetorical challenges is one of the things that brought us to roleplays, and especially to impromptu role-plays, which do not allow students the time or distance they need to bury the key rhetorical issues in diversions and vagaries. In addition, we extend the power of the Joker mutatis mutandis to the whole class: that way, even when a student does trivialize his or her role-play, we get a teaching moment. First, the student's attitude is usually the result of an insensitivity (or oversensitivity) to the issues involved. Second, other students can often see the threat and the opportunity that the author is ignoring.

Before we let the students present the first role-play to the class, we usually introduce a focus for the discussion that will follow. For our first set of role-plays, we usually ask students to observe the responsibility

each persona in the role-play has for the failure of the communication. Introducing a theme like responsibility just before students see a roleplay helps focus the discussion of alternative actions that follows the presentation. If we don't introduce a focusing issue to encourage students to stop and analyze, their innate ability to redefine rhetorical problems sometimes will preempt a discussion of the actual action of the role-play. We like the issue of responsibility because it is central both to the students' work lives and to their comportment in the writing classroom. Raising the issue of responsibility early helps them to find the connection between themselves and writing. For instance, in one roleplay, the student had refused to shovel on a work site because he thought it was unsafe. A fellow worker did as he was told and ended up in the hospital. The focus question allowed the discussion of this incident to center on responsibility, not blame: What were the responsibilities of each worker and of their supervisor? A central problem in getting students to recognize the need for rhetorical analysis is teaching them to fix the problem, not the blame. After students are comfortable with the role- play process, we can set a focus for the class discussions at various points in the process: before students begin to script, after we return scripts, or before students rehearse.

Performing the Curriculum

After scripting, rehearsal, and focusing, the actual performance of the first role-plays occurs. Students perform without referring to the written scripts. When we first started using this form of role-playing, we allowed the students to take a copy of the written script with them for a first runthrough, but then we had them replay the scene without the script. Students quickly saw that effective role-playing was easier than they thought and could even be fun. On their own, they abandoned the written scripts after rehearsal.

Sometimes, we videotape the role-plays to help resolve disputes about which action caused which reaction. Also, information about body language and physical expression is absorbed in the form of a "dramatic" image, and we have seen what a powerful effect the internalizing of this projected self-image can have on the development of interpersonal skills. We prefer to use a video projector rather than a TV for playbacks. Perhaps because they are small or because the format is so familiar, television screen images do not seem to capture the attention or have

the impact of the near life-size image of a student projected onto a screen. We are always amazed at the ability of these images to hold the class's attention for extended periods. We have videotaped several role-plays from one class session (our classes run usually two hours) and held discussions that did not require the use of the film, and yet the students were ready and eager to sit through a replay of all the role-plays at the end of the class. We have also used videotaped role-plays as the basis of exams, asking students to view the tape and then write an analysis of the situation presented. Videotaping is a useful option, but it is not essential; and we wouldn't insist on reviewing a tape before we began the discussion section of our role-play exercises, especially because these discussion may lead back into role-playing as described later.

A discussion of a role-play usually follows immediately after its presentation and can take different forms. The discussions can be short and limited to one aspect of analysis. Often, in the first set of role-plays for a semester, we run through the role-play discussions with just one task: to name the responsibility each persona had in the failure of the communication. We want to reinforce the idea that even the most obvious villain—the boss with a chip on her shoulder or the alcoholic co-worker—to some extent may be enabled by the responses of other actors. On the other hand, the discussion of one role-play could be material for more than one class session. It might open up topics like teamwork, management, or information flow that may require research or reference to the textbook. This dynamic is the same as the one that traditional case-study techniques engage.

Eventually, discussion may lead to alternative ways to envision and enact the role-play. In the style of Boal's (1968) Forum Theater, the students become "spect-actors": not passive observers, but active participants, and therefore active learners. In our discussions, students are able to intervene in a role-play after its first run-through to test out different strategies. For example, in one role-play a student is fired for handling a customer when it wasn't part of his job description. In this situation, the policy conflicted with best practice/policy implementation—an authentic and complex situation. Originally, the student author/actor had not tried to keep his job. Presenting the event as a role-play enabled him to revise his personal history. It was too late to change the outcome, but seeing what he might have done increased his sense of control. He actually considered contacting his former employer, but decided that

instead he would accept it as a lesson learned. Thus, during the discussion phase, we employ Forum Theater techniques to allow class members to stop the role-play at critical junctures to introduce other possibilities and reject alternatives as magical. Following Forum Theater practice, we sometimes play each intervention through until we see a real solution or until we come to another intervention that revises the scene or advances the action to move us closer to a resolution of the core problems (Boal 1968, 139–42).

The essential part of the role-play is its function as a rehearsal, estrangement, and deliberation, all which Brecht (1968) and Boal (1968) name as essential to the dramatic process. For example, in one student-generated role-play, this question was posed: How do you respond when a group member isn't pulling his or her weight? Students role-played it two ways. First, they lectured and punished, and the delinquent student-actor naturally (unrehearsed) pulled away and acted worse. Next, they included him, asked for his input, and he responded positively. Rehearsing their response allowed them to respond more deliberately and more effectively. As Brecht observed about his learning plays, this role-playing is a rehearsal for real life.

LISTENING TO WHAT WE HEAR/SEEING WHAT WE LOOK AT: FINDING WRITING WITHIN THE ROLE-PLAYS

Using the process described previously, students generate a wide range of role-plays, practice their interpersonal and self-presentation skills, and discuss thoughtfully many rhetorical issues that arise in technical communication. But students also need to write. Like role-plays themselves, the writing assignments that emerge from them are complex. They invite student investment and revision, place the teacher in the role of facilitator, and teach the principles of technical writing as surely as textbook assignments. These writing assignments, in fact, prepare students for more traditional academic assignments, such as research papers, which we sometimes assign in the second half of the semester. In fact, by midsemester, students are prepared to see their academic writing as role-play, a strategy that gives them the rhetorical tools, sophistication, and confidence to succeed as academic writers.

Writing a Solution

At some point, a group's role-play will generate a writing task, either as a follow-up to the event role-played or as an alternative to the failed strategy

of the role-play. This task usually emerges naturally in discussion but can be prompted by questions such as "What needs to happen now?" or "How could this have been avoided?" These questions serve as a spring-board for all our writing assignments, which may include letters or memos from one persona to another or to a figure implied by the action. In this way, the writing situation is authentic, visible, and motivated. Students begin to see writing as a natural by-product of life, not as an academic exercise. At the same time the writing assignment remains a common topic for all students in a section, which is practical for our grading purposes and for documenting our adherence to institutional course requirements.

As students draft their writing assignments, we can return to role-playing to test the efficacy of their writing. A follow-up role-play can test the effect of the writing on the intended audience. This role-playing peer review can make clear when a student has tried to solve a complex problem with a sledgehammer. In a particularly effective scenario, one of the students, playing himself, insulted his supervisor's mastery of English. The student then sent the supervisor a memo about the encounter. In a follow-up role-play, the supervisor called the employee into his office after receiving his memo about the encounter. The supervisor first impugned the employee's own mastery of written English and then fired him for insubordination. The class cheered. They love a good payback.

Writing Research

Even if we move to more traditional presentation modes, like academic research projects for a technical course, later in the semester, we find the students' work with role-plays enriches their academic work. Once students understand the communication process within an authentic workplace environment, they are prepared to see the academic genres and classroom learning as authentic. For example, in the first assignments, we use a Total Quality Management customer/supplier model to discuss rhetorical issues (Schmidt 1992, 37). In this model all work relations, both internal and external, are identified as occurring between customers and suppliers. Just as a customer comes into a store to get what he needs to do his job, coworkers within a company act as both customers and suppliers to one another; a key to one's professional life in this model is identifying one's myriad customers, their needs, and the effect one wants to have on them. Later in the semester, we may employ this same model to work with students on a research project assigned

from one of their technical courses. We ask students, who are used to seeing themselves as customers of the teacher, to see themselves as suppliers of the research project. We begin with the questions that we often use to focus role-plays: Who are the customers in this situation? What effect do you want to have on them? Using the experience of role-playing, the simplistic answer, "My teacher is the customer" gives way to a more complex discussion: How are the students in your research team also your customers? How are the students in your class customers of your research? How can you make a potential employer the customer of your research? Recently, two of our former students told us that they went to a job fair and told recruiters about their research, which led them to job interviews. It was the role-playing in our class that led them to understand that someone in the real world could be interested in what they had done in an undergraduate research project. They were able to see themselves as suppliers of information to potential employers. That is the lesson we think role-playing teaches well: to become an effective part of an organization, you have to understand the role your communication skills do and can play.

With an improved understanding of research and writing as a commodity that an employer might need, rather than a retelling of old information to prove they have done the required reading, students begin to take more responsibility for their research. In our classes, the purpose of research projects becomes to teach the class, as well as the teacher, something about a technical subject that will be relevant to their lives and work. In this way, with the class as a real audience, the research project becomes a rehearsal for life. As part of the project, students present a proposal to the class before they begin. The class has to approve the topic and suggest what it is they might want to know about the proposed topic. After conducting the approved research, the student must then deliver an oral report to the class and a written report to the professor who assigned the project. This assignment creates two very different audiences. The textbook issue of the complex audience thus arises out of an authentic assignment.

Our expansion of the primary customer from professor to fellow students also helps the class resist the urge to see research as facts lifted from books or the Internet. The whole project is now defined by the need to teach a specific audience specific material and to respond to the real needs of the customers. At the end of the student's final presentation

and the question and answer period, the class takes a quiz on the material, designed by the presenter. The success of the class on the test factors into the final project evaluation. This test situation is a more authentic situation than a research paper alone. It has a specific but complex audience (with equal or less knowledge than the writers) and measurable results. It also sensitizes students to their responsibility to an audience and to the extent of their control over both situations and information.

DOUBTS AND CERTAINTIES: THE TEACHER AS LEARNER

The previous sections tried to made clear the value we find for role-plays in students' academic lives, but they have not touched on the value this approach has for our academic and professional lives. Role-plays create a classroom environment that engages us equally as it engages students, allowing us to reflect on the questions we find essential to our lives as teachers and academics. At the same time, they streamline the procedural and administrative work of teaching because they make it clear both to us and to students our function in the classroom. We find our work with role-plays has made us reconsider our position on academic issues, such as writing across the curriculum and case-studies initiatives. Role-plays have also forced us to reflect on some of the essential power dynamics of the classroom embodied in traditional grading and textbooks.

Rethinking Writing Across the Curriculum and Case Studies

For us, use of role-plays developed out of our experience with two movements in the teaching of college writing: writing across the curriculum (WAC) and case studies. When the authors first became colleagues, we worked on developing a WAC program for the college. We began by engaging technical faculty in joint writing projects. Though we succeeded in developing joint writing projects, our commitment to constructivist ideas about student-centered classrooms soon created problems. The assignments from the technical courses were not in tune with a student-centered approach. The research projects were not well adapted to the students' technical interests or research skills. The lab reports were mostly fill-in exercises with a paragraph or two of discussion and conclusions. As described earlier, we adjusted one research project to make it more authentic, but we were and are still dissatisfied with the results. The technical component in these projects remains fully defined by

traditional course content. The students are given a list of technical topics to select from, all which are covered in the textbook. Our WAC projects were subordinating the authentic rhetorical needs of students to course content. In response, we initiated our technical projects, such as the semester-long lab revision project described previously. Our frustrations with WAC projects made clear the advantages of the more authentic approach to role-playing that we now use. Role-playing, in turn, influenced our revision of WAC projects.

Subsequent and connected to our work with WAC, which continues, was the opportunity to work on a collegewide case-studies initiative. We collected and developed a set of cases for use in technical and general education courses. In the end, the process of preparing cases for unprepared instructors in existing courses was unsuccessful because the cases we developed looked like the cases that many newer professional/technical writing textbooks provided. These cases, conceived in terms of specific book chapters and discussion points, were not authentic learning experiences for the students. They led students to specific material at specific times, instead of bringing material to students only when discussions require it, which is the traditional method of case-studies courses. In the case-study classroom, the development of the course content should be subordinated to the needs of the case work. This is not what happened in our case-study initiative, for two reasons, we think. First, the institutions, discipline, or self-definition of most technical teachers does not allow them the creativity and close attention to an unfolding class dynamic that being a case facilitator requires. Second, the method used to prepare these cases was inappropriate for our classes. Either they were too sophisticated, requiring too much subject knowledge to be effective, or they had to be stripped down to match the professional knowledge of students. The Harvard Business School case-studies model, which underlies many case-study projects, is probably not a good one for undergraduate students or for students without equivalent professional background and experience.

We were frustrated by WAC and prescriptive case studies because we felt they did not go far enough toward a student-centered pedagogy. Then, at a meeting with representatives of the Field Services Managers Association, we asked what we could do to prepare students for employment and got the response, "Teach them to use role-plays." We combined the role-playing technique with the idea of a student-centered classroom,

and the result was the technique we have been describing. The work of Brecht (1968) and Boal (1968, 1997) then gave us the theoretical direction and practical tools for dramatizing our technical writing courses. Role-playing has dramatized the classroom for us. In the process, it has challenged our traditional academic assumptions about assessment, student success, and textbooks.

Rethinking the Power Dynamics of the Classroom

Their initial role-plays unintentionally prepared students and ourselves to interrogate the validity of traditional grading methods in the face of authentic experience. This interrogation is a natural by-product of raising authentic issues of purpose and presentation within a traditional classroom. Students will ask, "If I got the job done, how can you grade me?" Or, "If the other student responded the way I wanted in the role-play where I presented my letter, how are you going to grade me down?" The role-plays help students see the relativity of communication, which in turn complicates grading, with its basis in error rather than achievement. In doing so, role-plays create an opportunity for students to begin to consider their methods for assessing their personal effectiveness.

Perhaps this opportunity is one reason that bad students often succeed at role-plays in ways that force us to redefine the behaviors we categorize as "good" and "bad." The success that low- achieving students experience in role-playing makes us conscious of the artificiality of these labels. Role-plays often help the bad students by validating their active, personal approach and by helping them use it mindfully to get what they want. As teachers of adults, we probably cannot ignore their habits, but we can make them aware of these habits and help them bring them under their control.

Good students often create inappropriate role-plays, tests, and presentations; bad students often create dynamic, engaging, and authentic role-plays, tests, and presentations. For instance, good students will create tests with many multiple-choice questions about specific numbers. Bad students will ask for definitions of basic terms. Good students will "hide" their questions within the presentation; bad students tend to advertise them in neon as the presentation unfolds (writing them on the board before they begin, giving cues such as "This is an important word to remember"). One semester a group of good students complained fiercely because a group of bad students got a better grade. How unfair!

How unheard of! Role-plays disturb students because the usual structure that determines how one earns an "A" isn't there, and they don't know what to do. They have to think about the rules. (In theory, role-plays have given them a tool to do this and to revise how they see rules.)

There seem to be several reasons bad students excel. Bad students help each other more in ways that attempt to leave none behind. Good students often see a locus of control in the material or the professor and define presentations and assignments as "telling knowledge." They see everything in the technical field as talking to someone who knows more than they do and to whom they must prove their command of the material. Role-plays do give these students a language with which to name more diverse audiences, but these students often balk at role-plays and research-for-their-peers because it risks undermining the academic structure in which they have found success and safety. Their presentations tend to be complex and their quizzes too subtle. Bad students, on the other hand, often see the locus of control in their peer groups. What other students think of them is more important than what the teacher thinks of them. This perspective is in some ways actually a more realistic worldview. We believe it leads them to seek success in what their peers can get from them. These students, of course, do recognize the locus of control in the material or professor, but they appear to be so intimidated by the control they perceive in these places that they opt out of the structure to be in control of an alternative, "loser" reality/structure. They are the students who say, "I'll do what I can," instead of "I'll do what I'm supposed to" (which the good students say). This attitude is a way of designing and controlling a situation that often results in effective analysis of our role-play problems.

Rethinking the Textbook

Finally, using role-plays has made us examine and change how we use textbooks in our classrooms. In classes structured around role-plays, we do not use textbooks to plan lessons. Instead, we use them to support students in the work that they have set for themselves. The genre parts of the text (for example, how to write a letter) become reference guides to students after writing assignments emerge from role-plays and discussion. We incorporate the sections on audience, user testing, ethics, and so forth into our daily classroom practice. These sections provide a common vocabulary and ethos with which the class can discuss and understand

the rhetorical aspects of their experiences inside and outside the class-room.

We have observed that technical writing textbooks are becoming rhetorically sophisticated in their choice of subject. They discuss more thoroughly issues of audience awareness and ethics. The challenge is to create a way of generating assignments that raise these issues with the same sophistication. Turning our classroom into a more student-centered experience by creating student-directed, problem-solving contexts has helped us to make use of the rhetorical thoroughness of the latest generation of texts. The challenge and opportunity is to capture students' authentic communication experiences. As the field of technical communication changes from a static, codified genre, students' needs have pressured the discipline to reenvision what a textbook should be and what it's capable of doing. Our classroom methods are an attempt to make available to students the possibilities of the new texts and to demonstrate the relevance of rhetorical education.