The Challenge of Getting Technical Experts to Talk: Why Interviewing Skills Are Crucial to the Technical Communication Curriculum

Madelyn Flammia

Abstract—Journalism and communication programs recognize the need to teach their students interviewing theory and techniques. Technical communicators rely on interviews for a significant percentage of the information they need to do their jobs. Interviewing techniques are ranked in the top ten topics that technical communicators think should be taught in technical writing programs. The technical writing curriculum must include courses in interviewing skills. This paper describes a course with a general focus on interviewing skills and a particular emphasis on the challenges technical communicators face in the interview situation.

INTRODUCTION

Educators in journalism and communication programs recognize the need to teach their students how to interview effectively. Like journalists and other professional communicators, technical communicators rely on interviews with technical experts for much, and in some cases, all of the material they need to produce documents. In the last ten years, many articles have called attention to the importance of interview skills for technical communicators. Interview techniques ranked in the top ten topics that technical communicators thought should be taught in a technical communication course [1, p. 22]. Another survey of technical communicators reported that 70% of the respondents identified skill in interviewing sources as either "substantially or extremely important" [2, p. 10]. To be successful, technical writers must be skillful interviewers.

A growing recognition of the importance of interviewing skills for technical communicators is evidenced by the inclusion of chapters on interviewing in technical writing textbooks. The second edition of Rew's Introduction to Technical Writing: Process and Practice (1993) has a thorough chapter on interviewing subject matter experts that covers every step in the process from doing background research, planning, and designing questions to conducting the interview itself, and, finally, to using the material gathered effectively and accurately.

Lannon’s Technical Writing (1991) discusses the personal interview, together with other useful sources of primary research, including surveys, observation and experiments, company literature, letters of inquiry, and analysis of samples. He places particular emphasis on selecting the appropriate person to interview and on preparing a series of written questions after doing thorough background research. In addition, Lannon gives advice on how to maintain control of the interview.

In Technical Writing: Principles, Strategies, and Readings (1991), Reep discusses interviews as part of the on-the-job writing process. She covers interviews with subject matter experts and interviews to gather information on readers’ needs and the intended uses of a document. Reep offers a good set of practical guidelines to follow when conducting either type of interview.

Alred, Oliu, and Brusaw’s The Professional Writer: A Guide for Advanced Technical Writing (1992) gives the most thorough chapter on interviewing skills of any of the texts discussed. In addition to information on doing background research and formulating questions, this text has an excellent section on interpersonal skills and nonverbal communication in the interview situation. Samples of poorly phrased questions are given, together with improved versions of the questions; a complete sample interview is also given. The authors have a separate discussion of telephone interviews and also offer excellent checklists for In-Person Interviews, Telephone Interviews, and Interpersonal Skills for Interviews.

Some other texts do not offer an entire chapter on interviewing skills, but do have some useful guidelines within chapters on research and information gathering. Philbin and Presley’s Technical Writing: Method, Application, and Management (1989) offers a valuable discussion of confidentiality. In Reporting Technical Information (1992), Houpt and Pearsall give good suggestions on structuring questions and establishing rapport with the interviewee. They also include a sample interview. Pauley and Riordan’s Technical Report Writing Today (1993) has practical advice on probing for information when interviewing. Both Weisman in Basic Technical Writing (1992) and Markel in Technical Writing: Situations and Strategies (1992) give sound basic guidelines for conducting successful interviews with subject matter experts.

This list of texts is by no means exhaustive, but it does represent some of the best current information on interviewing skills for technical communicators. The only text entirely devoted to interviewing skills is Earl McDowell’s Interviewing Practices for Technical Writers (1991). As McDowell’s excellent text demonstrates, there is much that technical communicators can learn about interviewing from research done in journalism and communication [3].
Technical writers are like journalists, in that much of what they write depends on their ability to garner information from sources—often uncooperative, and sometimes extremely reluctant sources. However, while every journalism student enters the profession with an understanding of the need to do interviews and perhaps an eagerness for the challenges attendant to conducting interviews, technical writing students usually have no conception of the need for becoming skilled interviewers until they are well into their first job. Although we pay lip service to the importance of interpersonal communication skills, the focus in our programs is on writing, editing, technical knowledge, desktop publishing, graphics, and oral presentation. Most of our students learn their interviewing skills on the job; however, as research in journalism and communication demonstrates, interviewing is both a skill and an art that we can teach our students in the university.

A COURSE WITH AN EMPHASIS ON INTERVIEWING

In the Technical Writing Program at the University of Central Florida (UCF), I teach a course entitled “Careers in Writing” which addresses the need for students to learn how to conduct interviews in a professional setting and focuses specifically on the challenges technical communicators face in interviews. “Careers in Writing” is a unique course with a dual purpose: in addition to introducing students to the importance of interviewing, the course also provides students with an overview of the multitude of diverse career paths available to the technical communicator.

“Careers in Writing” is a one-credit course that meets once a week for fifty minutes. For approximately two thirds of the fifteen-week semester, students hear a series of speakers: technical communicators drawn from the Orlando area. The speakers represent many different types of businesses, from banking software companies to large defense contractors. Some of the speakers are senior writers and editors, some are freelance or contract writers, and some are entry-level technical writers who are recent graduates of the UCF Program.

The wide range of speakers serves several educational purposes. First, on the most basic level, the course is useful for those students who have not yet decided on a major and who wish to learn more about technical communication. Often students come to the course with misconceptions about the profession of technical communication. They think that all technical writers spend eight hours a day chained to a computer or that technical writers work only for engineering firms.

In “Careers,” students meet professionals from companies that range from environmental engineering firms to defense contractors, and from small banking software companies to Fortune 500 corporations. These technical communicators play many different roles within their companies; in addition to writing and editing, they are involved in public relations, advertising, design and layout, production and management. After listening to the speakers, students begin to understand the diversity of the profession.

The second purpose the course serves is to help students majoring in English with an emphasis in technical writing get a clearer idea of the direction they want to take within this diverse profession. Third, the course gives students the opportunity to ask questions of, and talk informally after class with, professionals who may one day be their employers, managers, or colleagues. Finally, and most importantly, the course develops the students’ interviewing skills.

Early in the semester, students must select a technical communicator to interview and secure my approval of the proposed interviewee. Then they must develop a set of questions to be used during the interview. The students’ questions are graded and commented upon by me; they are also either approved “as is” or returned to the student for revision and subsequent resubmission. When grading students’ questions, I look for evidence that students have done research on the interviewee’s company, and, if necessary, on the interviewee’s industry as well. Questions such as “Tell me what your company does?” are unacceptable.

Questions must, of course, be relevant to the students’ understanding of the field of technical communication, since the purpose of the interview is to report to the class on what they have learned about a particular career in the field. Students should attempt to frame questions in such a way that each question has the potential to elicit specific and unique information. Those students who rephrase the same question in several different ways will have to do some major revision before their questions are accepted.

I also evaluate each individual question for any interviewer bias—for example, asking a software documenter, “Do you hate working with all those condescending programmers?”

A good revision of this question might be, “What are some positive and negative aspects of working closely with programmers?”

Beyond evaluating each individual question, I look for a logical progression in the series of questions that will make for a structured and efficient interview. A random series of questions with no discernable structure will be returned to the student for revision. The best sets of student questions are those in which related questions, for example, questions on the interviewee’s education, are grouped together. When this structure is present, students have no trouble preparing for and conducting an efficient interview.

Finally, the number of questions should be appropriate for a 20- to 30-minute interview. Students who have only come up with one or two questions are not prepared to guide an interviewee through a 20-minute interview. Students with too many questions will need to decide which questions are most important and put them first; they can always keep their extra questions in reserve, in case they are fortunate enough to have extra time.

Many students find my insistence that they revise their questions, often more than once, initially troublesome. However, as the semester progresses, they learn the necessity of well-thought-out questions—from hearing speakers who stress this and from their own experiences and the experiences of their fellow students in interviews.

Once a set of questions is approved, students must get the interviewee’s consent and schedule a date, time, and meeting place for the interview. I encourage students to meet
with the technical communicators they are interviewing at the interviewee’s place of business, if possible. Meeting at the technical communicator’s work site gives students the opportunity to learn more about the business (perhaps by taking a tour of the entire facility), to observe the interviewee’s working conditions, and to see the computer equipment and production facilities used by the business. Going to the work site also allows students to meet the interviewee’s colleagues and manager.

Once students have gotten approval from me for their questions and have scheduled the interview, they must provide me with an interview guide, a specialized outline used by journalists to structure the content of an interview. The following is a sample of this interview guide.

Sample Interview Guide from “Careers in Writing”

I. Present Position
   A. Job title
   B. Major responsibilities
   C. Types of documentation produced (ask to see copies)
   D. Typical day at work
   E. Level of interaction with
      1. Writers
      2. Editors
      3. Graphic artists
      4. Managers
      5. Subject matter experts
      6. Clients

II. Previous work experience and education
   A. Other jobs in writing
   B. Other fields
   C. Major in college
   D. Postgraduate work
   E. Most valuable courses taken

III. Advice for students
   A. Courses
   B. Internships
   C. Prospects with your company
   D. Advice on job search
   E. Any other advice

The interview guide is used to ensure that all necessary topics are covered and all planned questions are asked [5, pp. 31–32]. The interview guide is used to structure an interview in much the same way that an outline is used to structure an oral presentation, and a planning document is used to structure a collaborative writing project. Of course, students are encouraged to be flexible and take advantage of any unexpected turns the interview may take, but not at the expense of failing to follow through on planned topics. The guide ensures that students make the most of their time in the interview situation.

After the interview, students are required to work from their notes on the interview and write a formal paper whose intended audience is their classmates: other students who want to learn more about the diverse positions held by technical communicators. During the last few weeks of the semester, students orally present the results of their interviews to the class. Because students report on their interviews both orally and in writing, the course sharpens students’ oral and written communication skills, while maintaining a primary focus on interviewing skills.

AN EMPHASIS ON INTERVIEWING SKILLS THROUGHOUT THE TECHNICAL WRITING PROGRAM

In addition to the interviews that students conduct in this particular course, technical writing students at UCF do a substantial amount of interviewing in all of their courses in the Technical Writing Program. In Technical Documentation I, students write a style manual and interview experts in areas that range from grammar to graphics. In Technical Documentation II, they work collaboratively with clients who are engineers, scientists or other technical experts to produce a manual the clients will use. Obviously, they must interview the clients repeatedly to be sure that they are creating a manual that will meet the clients’ needs. Finally, in Technical Documentation III, students work on writing a manual independently for a client. In all these classes, students must sharpen their interviewing skills in order to complete their projects successfully.

However, despite the undeniable importance of practicing interviewing skills, students must also be given guidelines to follow when conducting interviews. We must not downplay the importance of having our students study interviewing techniques. Simply providing opportunities for them to conduct interviews is not enough.

INTERVIEWING TECHNIQUES: STRUCTURING EFFECTIVE QUESTIONS

In “Careers” students learn proven interviewing techniques. They learn about the vital importance of planning and background research. They learn about different types of questions—open and closed, direct and indirect—and when and how to employ the different types. Students also learn how to organize a sequence of questions into an effective interview. They learn the etiquette of the interview situation. And perhaps most practical value for technical communicators, they learn how to deal with difficult and unwilling interviewees.

First, students learn about all the preparation a good interviewer does before even contacting an interviewee. I make sure students have done their background research by looking at, grading, and commenting on a set of preliminary questions. Questions such as “Tell me what your company does?” are not acceptable. Students must demonstrate to me that they have learned everything they can about the company and the interviewee’s role in it before they schedule an interview. The purpose of the interview is to ask questions regarding information that could come only from the interviewee.

We discuss the different types of questions they can ask an interviewee. I stress the fact that framing questions for an interview is a “creative act” [6, p. 15]. Students learn that open questions are general and allow the interviewee great freedom in determining the amount and kind of information to give, while closed questions restrict responses and limit the options available to an interviewee. A highly closed question forces the interviewee to select an answer from those provided.
When discussing their own experiences with difficult source persons, guest speakers give students insight into when to use a particular type of question. One speaker who works primarily with computer programmers explained that the most productive way to work with programmers is to ask only bipolar, yes or no questions. She found that this type of question prevented misinterpretation and simplified the situation for the programmers she worked with who were not highly skilled in expressing complex concepts verbally [7].

Direct questions that ask for needed information without any interference are the most common type of question. However, students may at times wish to use indirect questions, perhaps to avoid focusing on a sensitive subject area. An example of an indirect question would be asking an interviewee, “When did you graduate from college?” when what the interviewer really wanted to know was the interviewee’s age.

We also discuss primary and secondary questions and how to order them. Primary questions are questions that introduce a given topic. Secondary questions are follow-up questions, or probes, which the interviewer uses to elicit more information on a topic, to shorten an interviewee’s answers, or to change the focus of answers.

There are several different types of probes, including nudging probes, clearinghouse probes, and mirror or summary probes. Nudging probes are merely phrases, such as, “I see” or “And then?” that urge the interviewee to give more information. Silence may also serve as a nudging probe. The clearinghouse probe is a catchall question that asks for more information, such as “Is there anything else you can tell me?” The mirror or summary probe restates the answers given by the interviewee in an attempt to elicit additional information or to clarify the information given [8, pp. 85–88]. The ability to probe effectively is a very important interviewing skill [5, p. 36].

INTERVIEWING TECHNIQUES: ORGANIZING AN INTERVIEW SEQUENCE

After discussing the different types of questions, we discuss the various ways to organize a sequence of questions. Students use an interview guide to organize the topics to be covered in an interview. They use an interview schedule (see the sample provided below) to organize a specific sequence of questions; an interview schedule is valuable because it forces the interviewer to develop an interview through sequences of related questions rather than a series of random questions [8, p. 72].

Sample Interview Schedule from “Careers in Writing”

I. Present Position

A. What is your job title? What division of the company are you in?
B. What are your primary responsibilities? Secondary responsibilities?
C. What types of documentation are produced in your department? At what stage do you become involved? Planning? Drafting? Editing? Would you be able to show me some of the documents?
D. What is a typical day at work like? If there is no such thing as a typical day, why not? Describe the range of activities you are involved in during the course of a week.
E. Interaction

1. What is your level of interaction with other writers? Do you work collaboratively? How often?
2. What kind of editing cycles does your work go through?
3. Do you work with graphic artists? Do you produce graphics yourself? What programs do you use?
4. What kind of relationship do you have with your manager?
5. Do you interview subject matter experts to get the material you work with? If not, where do you get the material you work with?
6. Do you have any direct contact with clients? If yes, what kind of contact?

II. Previous work experience and education

A. Where did you work before your present job? How did that job lead to your present job?
B. Have you ever worked in a field other than technical communication? Doing what? Why did you leave that field?
C. Did you major in technical communication or a related field? If not, what was your major?
D. Did you do postgraduate work? In what field? How has that helped you in your career? Is a graduate degree necessary for a position like yours? Do you advise students to go to graduate school or to work first after undergraduate school? Why?
E. What were the most valuable courses you took?

III. Advice for students

A. What courses would you recommend to a student today? Why?
B. Does your company provide internships? How would a student apply? If not, do you know of companies that do?
C. What are the prospects for entry-level employment with your company?
D. What advice would you give a student like myself seeking a job in technical communication? What courses should I take? What other experiences should I pursue?
E. Is there any other advice you can give me to take back to my classmates at UCF?

An interview may be “highly scheduled,” with every question planned exactly, it may be nonscheduled, or it may fall somewhere in between. For students, a highly scheduled interview is best. However, students should not let rigid adherence to a schedule prevent the interviewee from divulging additional relevant information beyond what the students’ questions elicit.

A series of questions may begin with open-ended questions and proceed gradually to increasingly restricted questions, in a funnel sequence. An inverted funnel, as the name suggests,
begins with closed questions and moves toward open-ended questions. As a class, we discuss which interview situations might best be served by which types of sequence. For example, an initial meeting with a subject matter expert would probably be best structured in a funnel sequence to get as much general information as possible. An inverted funnel, on the other hand, might be used successfully when an interviewer faces a resistant or difficult source and hopes to get the interviewee to open up gradually.

THE ETIQUETTE OF THE INTERVIEW SITUATION
We also discuss the etiquette of the interview situation. Students must learn the importance of planning a time limit and adhering to it strictly, unless, of course, the interviewee desires to extend the time frame of the interview. Students’ experiences have run the gamut from hurried exchanges in company lobbies to relaxing lunches where the interviewee picks up the check. Another aspect of etiquette involves the use of a tape recorder. I discourage students from relying on tape recorders. The course places a heavy emphasis on the importance of notetaking. Students are graded once at midterm and once at the end of the semester on the notes they take on the guest speakers’ presentations. These notes are graded on how well they reflect the students’ integration of information presented by the speaker into their own overall understanding of the field of technical communication. The notes must demonstrate that the students have thought about what the speakers have said and made it their own; students should not merely copy the information blindly in the order that it was presented by the speakers, but rather should include comments and reflections of their own. Even when taking and writing up notes on speakers’ presentations, students are in fact improving their interviewing skills.

Ideally, a course like “Careers in Writing” would encompass practice interviews in class that would be videotaped for critique and analysis by the teacher and by classmates. Because “Careers” is currently set up as a one-credit course, there is no time for such mock interviews. In our new graduate program in technical writing at UCF, we will be able to offer a course that focuses on interviewing skills in more depth.

CHALLENGES THAT TECHNICAL COMMUNICATORS FACE IN THE INTERVIEW SITUATION
While the primary focus of any interviewing course is to teach students how to conduct successful interviews, an interviewing course for technical communicators must address the unique challenges they face in the interview situation. Technical communicators frequently interview scientists, engineers, and other technical experts to get the information they need to do their jobs; for the most part, these professionals do not perceive technical communicators as their professional peers. In many companies, technical communicators are not granted the same professional status as scientists, engineers, and others who produce profits for the business directly. Rather, writers and editors are often viewed as support personnel.

This negative perception of technical communicators, which is gradually changing [9, pp. 205–206], [10, p. 67], creates some obvious problems in an interview situation. Since the students in “Careers” interview technical communicators rather than technical experts, they do not face this problem in their interviews for class. However, they must be prepared for the fact that many of the technical experts that writers must interview are either hostile or uncooperative. Those who are actively hostile may deliberately withhold information and even attempt to thwart writers trying to do their jobs. The uncooperative technical experts may not be difficult deliberately, but rather may be too busy to give any of their time to writers since they perceive writers as having little to contribute to projects.

In both cases, the problem springs from the negative perceptions the technical experts have about writers and editors. Problems in eliciting information from sources are often related to the fact that the interviewee has a low opinion of the interviewer or the interviewer’s organization [8, p. 292]. Technical experts often perceive writers as secretaries or word processors whose job is merely to put documents into an appropriate format, not as experts in their own right who are able to make significant contributions to the content of documents.

Walowski’s survey of software engineers at Digital Equipment Corporation reveals some causes of the negative perceptions experts have of writers. These causes include writers who change the meaning of technical material for the sake of a style guide, writers who pretend to understand technical information when they don’t, and writers who are condescending to engineers who don’t write well [10, pp. 65–66]. Writers must overcome these negative stereotypes by being highly professional: the writers are the ones who must strive to establish a more positive image and a better rapport, since they are the ones seeking information.

HOW TECHNICAL COMMUNICATORS CAN OVERCOME THE CHALLENGES THEY FACE
In “Careers,” students learn several ways that writers can change subject matter experts’ negative perceptions of them. One way is by speaking the same language as the experts [8, p. 290]. Technical writers and technical writing students must do their homework; they must learn as much as they can about the subject, project, or product they are documenting before seeking an interview [5, p. 24], [6, p. 78]. If technical experts perceive writers to be nothing more than secretaries and grammarians, then technical writers must correct that misconception by coming across in their initial encounters with experts at least as individuals who can talk the language of technology, and at best as individuals who can talk knowledgeably about the product or service being documented. For example, one speaker, a writer for an environmental consulting firm, told students that he found his credibility with engineers and ability to get useful information from them increased greatly once he learned to speak their language; he did this by doing background research, asking questions, and making sure that he did not have to ask the same question twice [11]. For the
software engineers Walkowski surveyed, a writer’s credibility was “almost solely determined by the writer’s degree of professionalism” [10, p. 66].

Technical communicators can also establish rapport with the interviewee and enhance the interview situation by finding subtle ways to convey how the expert being interviewed will benefit from what the writer is trying to accomplish. One writer working with programmers was successful because “some questions [she asked] resulted in finding program errors, thereby gaining the gratefulness of the programmers and building their confidence in [her] work” [12, p. 18].

Writers can stress the benefits of good documentation: good documentation will increase a product's success and reduce calls to user support lines. A technical writer working with a solar engineer found that she was able to establish a rapport with him by demonstrating what her expertise could contribute to a manual. By creating sample pages and revising text to make it more easily understood by users, she was able to change the engineer's image of her and of technical writers generally. His changed perception made him much freer to share information with her [13].

Writers may also strive to emphasize ways in which they can help experts with written and oral communication that will make the expert's job easier and may even increase the expert's success within the company. The technical writer in the environmental firm improved his relationship with the engineers in the company by helping them prepare visuals for conference presentations.

Even when writers are skillful at establishing rapport with technical experts, however, they may face a still more basic problem: the expert often does not perceive the interview as an “interview.”

Journalists and other professional communicators usually face interviewees who, for better or worse, perceive their meeting with the interviewer in the context of an “interview situation.” Certain expectations and guidelines are concomitant with an interview. Interviewees expect a brief icebreaker followed by a series of questions and probes that will be concluded within a reasonable time. Whether interviewees respond positively or negatively to this structure, they expect and understand it. They know that if they agree to an interview, they are agreeing to exchange information within a familiar structure defined by conventions. Of course, those conventions can be, and often are, violated, but this violation is still a violation of a recognized structure.

Technical communicators, on the other hand, are seen as mere support personnel intruding on an expert’s work, rather than as professionals participating in a formal exchange of information that has value to both parties. This problem is, of course, related to the problem of the negative perceptions technical experts frequently have of technical writers. Writers can only combat these negative views by being extremely professional, by being knowledgeable about the expert’s subject, by being self-confident and skilled interviewers, and by getting administrators to allow them to be part of a project from its inception.

The only way the status of the profession of technical communication can be enhanced is by a high degree of proficiency on the part of all technical communicators [9, p. 205], [10, p. 67], [14, p. 195]. They must be thoroughly professional, and they must be highly skilled interviewers if they hope to convince engineers and scientists of the importance of interviews.

CONCLUSION

As teachers of technical communication, our job is to turn out students who not only know how to write, edit, design and layout documents, and use the high-powered computer equipment required to perform these tasks, but who also know how to interview. Courses such as “Careers in Writing” provide a minimum introduction to the importance of interviewing skills and strategies. A course devoted entirely to interviewing would be an even stronger foundation for students.

We need to take a lesson from our colleagues in journalism and recognize that interviewing skills and techniques can be taught. Our courses must address the unique challenges technical communicators face in interviews and apply interviewing strategies to those challenges. When prepared properly for the challenges they will meet, our students will not only be successful interviewers and communicators, they will also be instrumental in raising the professional status of technical communicators.

REFERENCES


Madelina Flamma is an assistant professor at the University of Central Florida, where she teaches various courses in the Technical Writing Program. Dr. Flamma has presented papers on collaborative writing and technical publication at the CCCC, ITCC, and the Florida Technical Writing Conference. She presented a paper on ethics in technical communication at the 1992 MLA Conference.