

Classroom Presentation Techniques

L. Jean Ussery, SAS Institute Inc.

Abstract

The assignment of teaching others is both challenging and exciting. There are a number of subtle factors involved in presenting information that can significantly affect your success as an instructor.

Obviously, students must pay attention during instruction in order to retain the information presented. The following proven techniques for establishing rapport, observing and interpreting students' reactions, using classroom aids, handling difficult students, dealing with various personalities, and fielding questions give you the tools you need to meet any teaching challenge. Whether you teach in a classroom environment or on a one-to-one basis, the tips offered here help you teach effectively and help your trainees assimilate your information readily.

The art of teaching is not easy, but with practice and self-evaluation, you can develop your communication and presentation skills so that your students not only learn from you, but enjoy the experience and rate you a top instructor.

For tips on preparing and planning your presentation, you may be interested in the paper, **The Nuts and Bolts of Course Development**, on pages 254-260 in the *Proceedings of the Thirteenth Annual SAS® Users Group International Conference*.

Get Yourself Ready

Classroom presentation starts before you walk into the classroom. You need to ensure that you have the right attitude. Since attitudes are contagious, make sure yours is worth catching. Here are some tips to help you get yourself ready.

Know your course. Know your course materials thoroughly. You should be able to present all components of the course without reading or stumbling through your visual aids. If a student asks you a question about the information on page 57, you should be able to pick up the flow of instruction at that point and answer the question. You must know what material was covered before that point, and what material is

covered later.

Know your subject. I recently observed two experienced instructors team-teach a course. Since this was an internal test-teach of a Release 6.06 course, it was the first time either of the instructors had presented this particular course to an audience. Both of them knew the course material. One of them, though, knew from first hand trial and error the answers to most of the "what if" questions posed by the students. This instructor had taken the time to try to anticipate all the questions experienced SAS® users might ask related to the course topics. She had expanded her knowledge and was able to field many questions. She not only knew the course thoroughly; she knew her subject. Both instructors did an excellent job presenting the material; one made a greater impression on me though, and earned my admiration.

Practice, practice, practice. The more you do something, the better you become at doing it. Practice presenting parts of your course to a coworker—an experienced instructor is a good choice if you know one. If you have the equipment, make a videotape of yourself and study it. Or present the course to yourself in a mirror. Practice using your visual aids so you learn to make a smooth transition from one to another.

Know your audience. You can help students relate to the course material if you know who they are and what areas they work in. Give examples during class that relate the course topics to the students' day-to-day work assignments. Be careful though, if you have a very diverse group, that you do not use examples that have no meaning to some students. In that case, it is probably better to stick to the general examples designed in the course.

Give yourself a positive attitude. We all know that it is possible to worry yourself into a depression. You can also think yourself into a positive attitude. Every time you think about presenting the course, think about how much fun it will be. Think about the trust the students and your manager have placed in you to give you the responsibility of leading the class. Imagine yourself at the end of the course when students are thanking you and praising you. Get excited about the job you are about to perform, and tell yourself that you are going to do it well.

Dress for success. The advertising slogan, "You only have one chance to make a first impression," is certainly true. You add a lot to your credibility as an

instructor if you are dressed professionally. While you are the same person in a business suit or blue jeans, you will *appear* more believable and authoritative in the suit. If you have a favorite clothing item that is appropriate, wear it the first day of class. Select a lucky charm if that helps you. For about the first five years of my teaching career, I wore a silly charm my father gave me. It was the corporate symbol of his company, and to me it represented his success in business. I wore it to remind me that I too wanted to be successful. That charm was never visible to my audience, but it was always there for me.

Plan, Plan, Plan

Be a boy scout. Be prepared for problems that crop up at the last minute. Have extra copies of your handouts in case students request them. Expect last minute changes to the attendee list and possibly the location of the training.

Have an emergency kit. Remember Murphy's law (whatever can go wrong, will go wrong) and be prepared for emergencies. Here are some of the items to keep on hand: blank transparencies, duct tape, extension cords, flashlight, hammer, hard copy of your visuals, markers, multiple outlet box, pens and paper, pliers, retractable pointer, scissors, spare bulbs for all machines, stapler, screwdriver, and three-prong adapters. I was a student once in a course when a total loss of electricity occurred in the building. There were windows in the classroom, so we were able to read our course notes. The instructor, who had been using an overhead projector, switched to a flip chart. The coffee grew cold, but the class continued.

Defuse interruptions. Plan ahead how to handle interruptions. The closer the classroom is to the students' work areas, the more likely that interruptions will occur. Publish a telephone number so that coworkers can call and leave a message for attendees. Have a message board outside the classroom that students can check during breaks.

Prepare the Classroom

Arrive early. Even if you have set up the classroom previously, arrive early on class days. Check out all arrangements, and be certain that everything will run smoothly. I have also noticed that some students arrive as much as a half hour before the scheduled starting

time so they can have their choice of seats. Arriving early also helps you start putting on your positive instructor attitude.

Check out everything. Since I am left-handed, I want the classroom set up opposite of the way most people set it up. Stand at the front of the classroom and walk through using the equipment; switch every machine on and check the focus. If materials are prepared for each student, make sure you have enough of everything. Practice with light switches; learn which switch operates which light.

Give each student plenty of table space. Many courses seem to be held in conference rooms or other facilities with cramped quarters. If the room size permits, consider bringing in extra tables. Students want enough room to spread out and take notes. If many people need training, offer another session of the course at a later time (you'll only get better with practice!).

Have adequate lighting, but dim lights for screen. You may use some type of visual aid that is best displayed in a darkened area, but students want brighter lighting so they can see their materials and take notes. If your classroom has separate switches, dim the lights in the screen area and keep brighter lights for the students. If you don't have that flexibility, give the students adequate lighting to see their notes. Your screen display may be washed out, but if students have a copy of your visual aids (as recommended below), they can get by.

Keep temperature comfortably cool. It is my experience that if you put three people in a room, one is comfortable, one too hot, and one too cold. I like to keep the classroom comfortably cool (but not refrigerated) to help students avoid falling asleep. Some students may complain of being cool; encourage students to dress in layers so they can be sure of their own comfort.

Be certain you can be heard in the back of the room. If you need a microphone in order to be heard clearly, use one. A lot of people seem to be afraid or overly conscious of using a microphone—don't fall into that trap. Just clip it on, adjust the volume if necessary, and then forget about it. If you teach in a small room, a microphone may be unnecessary. Remember to speak clearly and face your audience when you speak. Some people speak while looking down at their notes; in that case, the voice is projected down toward the table

rather than out toward the students.

Check your path for obstacles. Most people, including me, like to move around while they teach. Check around the front of the classroom for obstacles. Check to see if electrical cords are in your way; move them or use duct tape to secure them. I don't like tables or podiums between me and my students, but they can be necessary for using certain visual aids. I make sure that I can get out from behind the table or podium and stand in front of it. I also make sure that I can walk around the room while students are working on exercises. If someone has a question, we can discuss it privately without disturbing others.

Begin the Course

Have a "Welcome" message on the screen when students arrive. I think that displaying a welcome message as students are coming into the class helps them start focusing on the course topics. It is nice to include the course title, especially if there is another course going on nearby.

Take a deep breath if you're nervous. When it is time to start the course, walk to the front of the room, face your students, take a deep breath, and begin. But don't make the classic mistake of being so anxious to start and to do a good job that you forget to greet the students.

Remember to greet students as a group. On occasion, I have gotten to the third or fourth page of my presentation and realized I never greeted the class as a group. Even if you talk to some of the students earlier, make sure that you greet the group. Also ask the group if they have any questions, even on the first day. Some students may have questions about the logistics of the course or about course material covered previously. Answer those questions so you can move on.

Start on time. Many students have thanked me for paying attention to the clock. It is important to begin class on time, even if all students have not arrived (unless you know of extenuating circumstances that affect many students). If you start on time, you reward students who arrived on time. You also send a silent message to stragglers to be on time for the next session.

Get started; don't waste precious class time.

When you start the course, go ahead and get into the material. I attended a course where the instructor rambled on, recognizing a variety of people who contributed to the course, talking about the history of the course, and so forth. After twenty-three minutes of this discussion, the instructor finally started the actual instruction. It is important to help students understand what is expected of them during the course, how the class is scheduled, when breaks occur, and so on. Discuss these matters quickly and then get into the course. That's what the students came to learn.

Establish your authority, credentials, and qualifications. If you have dressed appropriately and you have your instructor "weapons" (see below), you instantly have a certain amount of authority. Students respect you simply because you are the instructor. Build on that respect. Briefly describe your background, especially the areas related to the course topics. I like to work this casually into the conversation ("In my sixteen years of teaching experience. . .") rather than bluntly ("Hello, I'm your instructor and I've been teaching for sixteen years.").

Establish and build rapport with the group. I like to establish the atmosphere that this is *our* class, not just *my* class. I want each student to feel comfortable to ask questions and offer comments when appropriate.

Learn and use names. If you learn only one tip from reading this paper, let it be this one. Have the students briefly introduce themselves and tell where they work. Memorize their names—write the names down if you have to—but learn those names and use them frequently. A friend of mine attended a day-long seminar along with sixteen other people. Because she selected seat #6, she was referred to as "6" all day. You may think you cannot learn names, but with practice you can easily remember up to 25 or 30. Here are some tips to help you.

- Be sure you hear the name. Consciously listen; don't let your mind wander while the person is saying his or her name. If in doubt, verify the name. ("Was that Pat or Pam?")
- Mentally repeat the name to yourself. Focus on the person's face and think "that is Sally."
- Visualize the name. I imagine the name typed on paper or carved in stone. See the name in your mind.
- Say the name out loud. After Sally introduces herself, you can say, "Good morning, Sally."

and listen with your ears as your mouth says the name.

- Don't worry about last names, but don't automatically use a nickname. Every Richard in the world does not necessarily want to be called Rich or Dick.
- Test yourself. While students are working on an exercise, I silently try to name each one and compare the names I remember to the names my roster. If I'm in doubt, I wander around the room and read name tags.

Communicate Effectively

Speak clearly. To project your voice well, your mouth should be aimed toward your students' ears. Too many people look down while making a presentation, making it harder for students to hear what is said. Don't mumble or talk too fast. A good trick to keep in mind is to talk to the person on the back row.

Change the level of your voice. If you're excited about the course topics or just about teaching, you probably naturally change the tone of your voice. Avoid being a monotone. Listen to yourself; make sure you sound like someone *you'd* like to listen to.

Smile! Simple, but true. So much of the classroom atmosphere is set by the instructor. If you are relaxed, friendly, and obviously enjoy what you're doing, students tend to follow your lead.

Make eye contact with everyone in the room. Look around the room as you're talking. Make sure you make eye contact with each individual periodically, even the student who asks a lot of questions or the one who never asks anything. Avoid the mistake of talking only to the people on the front row.

Use correct English, except for emphasis. About seven years ago, my job responsibilities changed so that I did a lot of writing in addition to my teaching. As I worked to improve my *written* use of English, I discovered that my *verbal* use improved. The act of editing my words on paper apparently taught me how to edit them before speaking. Be sure that you pronounce words correctly, especially new technical terms that students learn from you. There are times when poor English may help you make a point. I sometimes use the phrase, "It ain't necessarily so," to emphasize that something in the SAS System does not work the way students have assumed it works.

Use action words. As you teach, use words that describe actions, such as *define*, *issue*, *name*, or *perform*. Action words help students visualize the tasks you are describing. These words are much better than passive words such as *understand* or *know*.

Use everyday language. Speak in plain English. Some people seem to feel a need to use big or formal words when they speak before a group. Use everyday language; it helps students feel easier about asking questions. Of course, there are times you need to use technical terms; part of learning about the SAS System is learning new terminology.

Define technical terms. As you use new terms, be sure that you define them, and define them more than once. One instructor adage says that you have to repeat yourself three times before students remember what you've said.

Use anecdotes; tell on yourself. I've made some dumb mistakes while using computers, and students seem to love it when I tell on myself to make a point during class. I think it helps so that students don't mind asking me questions during computer workshops.

Read only for emphasis. You should know your course and your subject well enough that you can use your visual aids or course notes to guide your presentation. You should never read, except on the rare occasions when a point is so important that reading it aloud focuses everyone's attention on that single point. In that case, you may read a sentence or two and then pose the question, "What does that mean to us?" to start a discussion.

Observe students' reactions and respond to their nonverbal messages. Learn to read body language. Some students hesitate to ask a question, but their faces reveal that they have an unasked question. If I feel the student won't be embarrassed, I just state, "John, you look like you have a question." Or based on your experience teaching the course, you may think you know what the question is. In that case, address what you think is troubling John (without calling attention specifically to him) and then open up the discussion for questions. Watch for clues that the brain has temporarily shut down, such as when students get restless, look bored or asleep, stare out the window, and so on.

Provide feedback. Students respond to positive feedback. Sometimes a student poses a question that

clearly shows he or she is paying close attention, and is trying to fit together the information you are presenting. Before responding, tell the student that it is a good question. Praise him or her for paying close attention and working hard. Cheer students' accomplishments in computer workshops. You may design the course to include some challenging problems; congratulate students who are able to complete those. (I recommend that you have a group of problems that all students should be able to complete. Save the challenging problems for students who finish quickly.)

Answer Questions

Ask frequently for questions and then wait. I like to cover a short topic and then pause for questions. When you ask for questions, wait a few seconds before moving on to the next topic; it takes some students time to formulate their questions. After you've taught the course a few times, you may realize that there are standard questions each class seems to ask at the same point in the course. If a group suddenly doesn't ask one of the standard questions, you may turn the tables and pose the question to the group. That way, you can check to see if this group did not ask the question because they are hopelessly lost, because they figured out the answer already, or because it simply did not occur to them.

Listen to the question, repeat the question, answer the question, thank the asker. You can't really answer a question until you've heard it. Then, to be sure you heard it correctly, repeat it. After you answer the question, be sure that the person asking is satisfied with the answer. (I look for nonverbal cues such as facial expressions. It seems that if you ask a student point blank, "Does that answer your question?", the answer is invariably "Yes.") Thank the student for asking the question, or give some other form of positive feedback. It can take a lot of courage to ask questions.

Repeat questions before answering. I was team-teaching in a hotel in New York city once. While my fellow instructor was teaching, I sat at a table at the back of the room, working on something else. I slowly became aware that periodically, there appeared to be complete silence in the room. The silence was followed by my fellow instructor's voice saying, "The question is..." I realized that I was only a few feet farther back than the last row of students. Once I started paying close attention, I found I still could not hear a single

question posed by a student. By repeating every question, the instructor ensured that everyone in the room knew the question so the answer was in proper perspective. I've always tried to follow that excellent example.

Answer questions when asked. Frequently, students ask questions that are answered later in the course. Answer the question briefly, then tell the student that the topic is discussed in more detail later. I like to tell the chapter number and approximate time when the topic is covered. I also tell the SAS keyword related to the question, when appropriate. For example, a student asks how to control output so it is centered on the page. I respond, "The SAS System has a CENTER option to control output, and it is specified on an OPTIONS statement. We discuss it in detail in Chapter 4, after the next break."

Don't get nervous about answering questions. I have witnessed instructors who visibly tense every time a student raises a hand. The tension is the result of fear—fear that you do not know the answer. Remember, students can't ask you a question that you can't answer. Of course, the correct answer may be, "I don't know."

Have a "hanging issues" list to keep track of items to be addressed later. Keep a list (or ask a student to do it for you) of issues to be discussed in more detail. Although I like to answer a question when it is asked, some answers require information that has not been presented at the time the question is raised. Keep a list and be sure to address these items when you reach the appropriate points in the course.

Be available before and after class for individual questions. Students want to ask questions related to their specific use of the software. It is best to handle these questions individually and discuss them privately outside class.

Set irrelevant questions aside. Students may ask a variety of questions that are not specifically related to the course topics. (I've had students ask me why a certain component of the SAS System is designed to work the way it does.) A student may ask a question that is so specific to his or her application that it is irrelevant to other students. Ask students to discuss the issue with you at the next break, or indicate that class is not the appropriate place to discuss certain issues.

Answer the unasked question. Sometimes the look on a student's face reveals the fact that there is a question. If you think you know what may be puzzling the student, address it. Or you can rediscuss (be sure you reword) the current topic in hopes of answering the question. If the student has been asking questions freely and is suddenly quiet, you can ask, "Something seems to be puzzling you. Is there a question?"

Answer the question that is *really* asked. Surely you've heard the story about the little boy who asks his mother where he came from. After she completes her birds-and-bees explanation, he replies, "Wow! Timmy's from Cleveland!" Many times, especially in beginning level courses, students want to know that the software *can* perform a certain function, not necessarily *how* to make it happen. Many beginning users want to know that they are learning a product that will meet their needs today and tomorrow. Listen carefully to the question, and start by offering the shortest possible response and see if that satisfies the need.

Restate your message when answering questions. Frequently, students ask questions because the words you just said do not make any sense. If you simply repeat the same words, you don't clarify anything. On the second pass, reword your message. It is appropriate to repeat the same words for emphasis, however.

Remember, it's the first time *this* group asked the question. After you've taught the course several times, you may feel that you're hearing the same questions over and over— you probably are. I think that 95 percent of the questions I hear from the *current* group are the same questions I heard from previous groups. Don't let that frustrate you; after all, this is a new group, and they are entitled to their questions. Let this repetition help you. Anticipate questions and answer them before they are asked. Turn the tables and pose questions to the students— see if they know the answers. Use your knowledge of standard questions to try to anticipate the unasked question.

Avoid negative responses and excessive technical jargon. Try to avoid telling a student, "You're wrong." Give a response more along these lines, "It's good that you're thinking, but it doesn't quite work that way. Let's go over it again." Also try to avoid using too much technical jargon, and remember to define new terms several times. Use easy-to-remember definitions. I define *compression* as "squishing something into a smaller space" and accompany the words with hand

motions. I repeat the spoken definition or hand motions about three times at different points in the course before I assume students remember the term.

Handle a chronic questioner who is disruptive. Sometimes you encounter a student who asks a question on every page— and too often, the question is not really relevant. I think the best way to handle this situation may be to have a private chat with the student. Consider something along these lines: "Please help me out here. You're taking a lot of class time with your questions and others aren't getting a chance to ask theirs. If we don't cover your question, why don't you see me at the break and we can discuss it then."

Focus on the benefit to the student. At all times, try to focus on how students benefit. If you're discussing the INFILE and INPUT statements, for example, point out that students control what data is read, how it is written, and where it is written.

Maintain Your Credibility

Keep agreements. If you tell students you will take a break at 10:30, do it! If you say you'll discuss an issue privately at the break, do it! Follow through on all of the commitments you make.

Be prepared to back up your statements. Students have a right to question why you make certain statements. It is not a challenge to your authority, but rather a request for confirmation of the point you are making. Suppose you state, "The SAS System is the greatest software in the universe." Your students have a right to ask, "What makes you say that?". Be prepared with an answer.

Admit it when you don't know. One of the biggest mistakes you can make is to try to answer a question when you really don't know the answer. I doubt that anyone knows *everything* about the SAS System; admit it when someone asks something you don't know. It is okay to guess at an answer as long as you admit it is a guess.

Find out and report back. When you don't know the answer to a question, take some time after class to explore the question, and report your findings at the next class session (or call the person who posed the question if the course is over). You can discuss the question with another SAS user or write a sample program to discover the answer. Not only do you earn

the respect of your students for doing a little research, you know the answer next time.

Maintain your pace. Too many instructors take their time through the middle of the course and then have to rush at the end to cover all material. Plan your course so you have enough time to cover everything, and stick as closely as possible to your plan.

Be organized. Of course your course materials should be organized, but present a good impression by being organized in your manner and possessions. Don't open a sloppy briefcase—students will wonder if you know what you're talking about. Don't keep forgetting things—students will wonder if you know what you're talking about.

Don't read your notes or visual aid. Use your notes only as a guide to help keep you on track; never read them. Reference the visual aid so students read it. For example, point to it and say, "As you see on the slide..." Don't feel compelled to discuss every point made on the visual, especially if the point is self-explanatory.

Stick to Your Schedule

Start and end on time. If you've advertised that the class session begins and ends at certain times, adhere to that schedule. Students have made plans based on those times.

Take a break when you say you will. If you announce that you will take a 10:30 break and then don't stop class at 10:30, students start watching the clock and wonder if you forgot. They won't be paying close attention to the material you are discussing.

Don't wait for stragglers. When you take a break, announce what time class resumes. I like to announce both the length of the break and the actual time class resumes. ("Let's take a fifteen-minute break and start class again at 10:45.") When the time is up, resume the class; don't wait for stragglers who take longer to return to the classroom. If you wait, you punish people who returned to class on time and encourage stragglers to be late again.

Allow no interruptions. If you are teaching near where students work, people may try to interrupt class to consult with a student. Try to prevent this with a "Class in session - Do not disturb" sign on the door.

You can also have a message board and notepad beside the door so that people can leave a message rather than interrupt class.

Keep tangents brief. Sometimes questions are asked that are valid, and the answers are of interest to all students. If you have time to venture off into these topics, do so but keep it brief. Unless you have the supporting information you need written into the course materials, you are going to have to develop your visual aids as you go and students will want to copy them. If you allow such questions to go on for a while, you can have difficulty completing the course on time and difficulty getting students to refocus their attention on the course topics. When you return to the course after going off on a tangent, remind students of the page number and the specific topic.

Stick to Your Schedule, But . . .

Take a break about every hour or so. It amazes me how fast time flies when you're teaching. I believe that I could teach nonstop for three or four hours, but students can't sit in their seats that long without a break. Students hit information-overload after an hour or so. They have a tough job to absorb all the information you're tossing at them. Have a heart and give them a rest.

Take a break if students look bedraggled. If you've taken an Institute course, you know we schedule one morning break and one afternoon break. One is usually enough in the morning, but I find that students often need two breaks in the afternoon. If they look burned out, take a short stand-and-stretch break.

Watch the sleepy times. Right after lunch seems to be a deadly time. If you have to hold class then, try to schedule a workshop or question session—something so that students are active. If you must lecture right after lunch, watch for signs of "drop out" after 30-45 minutes and take a break.

Use a Variety of Techniques

Team-teach. When you share the teaching load with another instructor, students benefit as well as you. Students hear two viewpoints and two sets of experiences (and perhaps two different accents!). If both instructors are available at breaks and during computer workshops, students receive more individual

attention.

Support your team at all times. If you team-teach, you must *always* support your team. Never contradict the other instructor in front of students. If students perceive that the instructors disagree, it destroys the credibility of both instructors.

Reinforce training with real life stories and anecdotes. Sprinkle tales from real life into your presentation (as I've done in this paper). It helps students relate course material to the real world, and it can lighten what could be a boring session.

Encourage involvement and participation.

Encourage your students to contribute their own stories related to course topics. Sometimes a student makes a discovery in the computer lab that is worth sharing with the entire group. Encourage the student to describe his or her discovery. When you discuss solutions to classroom exercises, encourage students to supply the answers.

Use nonverbal messages. Indicate that it is time to resume class by turning on your overhead projector and dimming the lights. You can take off your jacket and roll up your shirt sleeves to show that it is time to get to work.

Bring in experts. You can add a lot to the course if you bring in experts—especially people the students recognize as experts—to make a presentation during the course.

Get out of the center of attention. During a group discussion, I don't want to be a leader; I want to observe and perhaps offer a little prompting. You can take a seat, or perch on the edge of the instructor's table. When you stand up and resume your instructor position, it sends the message that the discussion is over.

Move around during computer workshops.

Students feel better about asking you a question if you're just wandering by. Casually look over people's shoulders and offer praise for their accomplishments, but try to avoid making them feel that you're checking up on them. Never do anything else, such as read a newspaper, during the class or workshop session.

Appoint a "gatekeeper" to handle noninstructional problems. Ask one of the students to help you by serving as a facilitator. The gatekeeper can worry

about the lights, temperature controls, and so on.

Handle different student personalities. There are as many different personalities as there are students. Fortunately, most students arrive in class eager to learn. Here are four classic types that you might encounter:

- **I'm too dumb.** These people are convinced that computers are beyond their mental capacity. If you've designed your course well, you should have an "early success" exercise session. Watch these people and cheer their successes. They only need to see that they really *can* make the computer do what they want.
- **My boss made me do it.** While most students I encounter have to beg to be able to attend training, some are *sent*. These students usually respond when you point out how the SAS System will help them perform their jobs more efficiently. As they sit through the course, they discover techniques that they can use on the job.
- **I'm an Eager Beaver.** These people really want to learn, but can become a problem if they insist that you teach them what *they* want to know, rather than what is designed into the course. Just keep returning to the course topics. These people often finish computer workshops assignments quickly and respond well to extra-credit problems.
- **I know it all, pat me on the head.** Unfortunately, too often these people don't really know what they *think* they know about the SAS System. They often ask long detailed questions that they expect you to answer affirmatively. Their questions may begin similar to this, "Isn't it true that the SAS System . . ." They seem to want public recognition of their knowledge. Give public recognition if it is warranted. If it becomes a problem situation, have a private discussion similar to the one suggested previously for the chronic questioner.

Know Your Weapons

Use your instructor weapons. Certain things give you instant authority as an instructor: the fact that you are standing while students are sitting, your instructor's

table or podium, and your right to interrupt discussions if necessary. If you feel that somehow your authority or control is slipping (an Eager Beaver personality can try to take the class away from you), use your weapons. If you've been sitting, stand up. If you've been in front of the instructor's table, get behind it. If you've turned off the overhead projector, start using it again. All of these things add weight to your presence and authority in the room.

Get rid of your instructor weapons. There are times, however, when you deliberately want to give up your instructor weapons. During computer labs or private chats, sit down with the student if possible. (Beware, the student may want you to stay forever.) Stand in front of the podium or instructor's table. Turn off the overhead projector.

Use podium to hold your text. Have you ever seen a white-knuckled instructor who clings to the podium for dear life? Relax. Students don't bite, and they have placed great trust in you by coming to your course. Be casual. I don't like to use a podium anymore; it feels like a barrier between me and my students. View it as a barrier, not a life buoy.

Use silence effectively. Nothing beats total silence for handling many problems. If two students are continually having a private conversation and disturbing others, stop your presentation and let silence send the "please stop" message. Use silence to encourage participation. If you pose a question, wait before you answer it yourself. Someone usually speaks up to cover the silence.

Save the evil eye for big problems. You've seen the look; your mother gave it to you when you misbehaved in church. If two people persist in a private conversation while you are presenting a topic, stop in mid-sentence and give them that look. Even after they are quiet, give that look for a few more seconds to send the "enough already!" message. If necessary, have a private chat at the next break.

Use Teaching Aids Effectively

Follow the 80/20 rule. Studies have shown that 80 percent of the population retain better information that they have *seen*, while 20 percent retain information better that they have *heard*. Cover both possibilities and involve both the eyes and ears in receiving information. Your voice takes care of the ears; use

visual aids to take care of the eyes.

Use effective visuals that support your presentation. Make sure your visuals are related to your topic and are easily understood. Label the visuals so students can follow your discussion. I personally like presentations with a lot of visuals; perhaps a new one every five minutes or so. (The shorter the class, the more often the change is my rule of thumb. For the 40-minute SUGI presentation of this paper, I used 57 slides. That's a new slide every 42 seconds.)

Don't forget your two most valuable visual aids—your hands. You can have lovely pictures and diagrams, but sometimes there's just no substitute for your hands. Try this experiment: hold both hands behind your back and try to define *compression*. Tough, isn't it? You can add interest to your presentation just by using your hands. Don't be afraid. You won't look foolish; you'll add pizzazz. It is also difficult to speak in a monotone when you are moving your hands.

Check and recheck your visual aids. Make sure your visuals are in order, clean, and available.

Give students copies of your visual aids. Students want to take notes. You can help them if you hand out copies of your visuals. Most students like it when the handout duplicates the instructor's overhead transparencies or slides. This is also helpful for the student who may not be able to see the screen.

Dim the lights near the screen; keep lights for students. Most visual aids are displayed on a screen or monitor. The display shows up best and does not appear washed out if you dim the lights near the screen. Keep brighter lights over the students so they can see to take notes.

Turn lights back on for questions and answers. When you dim the lights for a video segment or something similar, remember to turn them back up for questions (your gatekeeper can help here). You want brighter light so that you can get feedback from the students' facial expressions.

Be sure everyone can see the monitor or screen clearly. I taught in a room once that had a column near the center of the student seating area. While no one was seated directly behind the column, it was a visual barrier for some. I've also been in a presentation where 15 people were expected to view a 19-inch

monitor. Make sure your display is clear and large enough.

Avoid casting your shoulder's shadow on the screen. Too many people allow their shoulder to partially block the projected image. Be aware of how close you can get to the projected image without blocking the view. Practice with a friend if necessary to learn where the boundary is.

Avoid standing in a student's line of sight to the screen. Don't let yourself become a barrier. You want everyone to be able to see your lovely visuals.

Consider color. Visuals are a lot more exciting when you incorporate color. You can also use color to help cue the students, show new technical terms in pink, for example. (This also helps you remember to define those terms.) Green and blue are good neutral colors. Red and dark blue can be difficult to see on a dark background. Don't make your visuals look like a harlequin, though.

Face your audience, not your aid. About six months ago I attended a seminar. It quickly became obvious that the instructor had very little experience and was very nervous. He was using a flip chart, and every time he flipped a page, he spent the first 5 minutes talking to the chart. Then he seemed to remember the students were there, and turned to talk to the group. I prefer to use equipment such as slide projectors and overhead projectors that I can operate without turning away from my audience. Someone told me once never to turn my back on my class, and it sounded like good advice.

Make sure you have solid instructional content before adding flash. Visual aids add a lot of spice to a presentation, but there has to be real information underneath. You have to know your course and your subject. You can be a great actor delivering a great script—until someone asks you a question. That's when the truth is revealed.

Avoid excessive dependence on audio-visual aids. What happens when the equipment fails? Can you deliver the instruction?

Use Overhead Projector/Transparencies

Overhead projectors are nice because they allow you to face your audience. Transparencies are easily transported and relatively easy to update. When you

use these tools, consider these tips.

Be sure your overhead projector surfaces are clean. Most people find it distracting if the projected images contain fingerprint smudges, stray marks, or dust.

Don't write directly on transparencies. The printing on the transparency film wears off over time. If you write directly on the transparencies and then clean them, they deteriorate faster. Instead, place a blank sheet of transparency film over the transparency and write on the blank.

Put some color on transparencies. Use transparency marking pens to underline keywords, or draw arrows to key points on each page.

Don't be blinded by the light. The light is blinding if you look at the projector to read the transparency. If you need to glance at the page to get your bearings, back up to the screen and glance at the projected image—it's much easier on your eyes.

Use a retractable pointer on the screen. Retractable pointers fit easily in a pocket or briefcase. They also allow you to stand to the side of the screen (so you don't block anyone's view) and point to any item on the projected image.

Use a pointer on the transparency. For example, if you have a bulleted list and you want to discuss each item, place a pointer directly on the transparency. You can advance the pointer as you discuss each item. The drink stirrers used by some airlines are good for this purpose.

Don't turn on the projector to a blank screen. Place a transparency on the projector, and then turn on the electricity. It's too jarring to see that bright light without it being softened with words.

Don't turn off the projector between slides. Although some sources advise turning off the overhead projector between transparencies, I find that disruptive (especially since I may handle in excess of 500 transparencies in a three-day course). To avoid the bright light effect, I recommend that you develop the skill of sliding one transparency off, while simultaneously slipping the next one onto the projector. With practice you will develop a smooth motion.

Don't jiggle the projector table. I observed an

instructor who placed both hands on the projector table and rested the weight of his upper body on his hands. As he spoke, the projected image kept dancing, making it very difficult to follow his presentation. Be careful and avoid bumping the projector table.

Use 35mm Slides

Although slide programs are difficult to change on short notice, they do offer you a lot of creative opportunities and are well suited for large audiences. Here are some tips for when you choose 35mm slides.

Make sure you have a remote forward/backward control. Unless you are working with a small group, you are probably too far from the projector to operate it without remote control. If there is no remote control, you can ask someone to operate the machine for you (although I find it difficult to make that arrangement work smoothly).

Know without looking which button does what. You should be able to operate the remote control without looking at the screen image or the control itself. Periodically glance out of the corner of your eye, however, to make sure that your presentation and your slides are synchronized.

Make sure the cord extends as far as you want to go. Many instructors move around as they discuss the information on the slides. Before class begins, verify that the cord for the remote control extends as far as you want to walk.

Use Flip Charts

Although I'm not a great fan of flip charts, they are nice to have as backup. If your other equipment fails, you can always use the chart.

Watch out for flip charts flipping. One of the problems with flip charts is that they never seem to stay on the easel. I observed an instructor become rattled by problems with his flip chart. If you experience problems, use humor to win the sympathy of the class. If you make them laugh *with* you, they won't laugh at you.

Beware of markers showing through. Flip chart

paper is very thin. If you prepare charts in advance, the information on the second page tends to show through when you display the first page. Some people solve this by writing on every other page. Also, some markers bleed through the page and produce stray marks on the page below.

Use a Microphone

Some people seem to be afraid of microphones, but use one when needed to help your audience hear your message. These tips may help you feel more comfortable.

Treat the cord as a tail. Many people have trouble with the microphone cord. If you just let it hang in front of you, you may trip over it. Once you have clipped on the microphone, wrap the cord around to your back and tuck a few inches of the cord into your waistband. The cord then acts like a tail and follows you wherever you go. This is the best way I've found to handle the cord; just tuck it in and forget about it. If I try to hold it in my hand, I tend to fiddle with it, and I have to let it go to use my hands as visual aids.

Don't clip the microphone too close to your mouth. If you do, the audience hears every breath you take.

Consider Other Ideas

Use short video segments for variety. Consider incorporating segments of video courses into your presentation. With video, you can create a change in atmosphere for the students, illustrate topics, or even add humor.

Use a video projection system. Yes, these systems are expensive but very effective. Watch carefully, though, because some of these systems seem to have a focusing problem around the perimeter of the screen—often the most critical areas in presentations about computer languages.

Use a rolling hanging file for handouts and reference materials. If your classroom storage space is limited, use a rolling hanging file or cart to bring copies of handouts and reference materials into the classroom.

Wrap Up the Course

Plan to end class early. If you plan to end class at 4:00, tell students class ends at 4:30. That way, you allow plenty of time for questions and interruptions to your schedule. If class actually ends at 4:10, students are happy to be out early, rather than stressed about being ten minutes late.

Have students evaluate. Ask students to evaluate the course (or you may want to evaluate at the end of each day in a multi-day course). Student feedback is very important to you in improving your presentation skills.

Evaluate by words. Most course evaluations use a numeric rating scale or words such as *good* and *fair*. Consider having students use more descriptive words, such as *soared*, *sailed*, *swam*, or *sunk*. These words help students form a mental picture of their classroom experiences.

Thank your students for being a good class. I enjoy teaching and learn a lot each time I teach. I like to end my classes by thanking my students. Learning is hard work and students deserve the recognition. I thank them for the time they have spent with me, for their attention, and for their questions.

Give a reward for completion. You can give students a completion certificate or a diploma. What about a Payday candy bar? Or, if the course is one of a series, give students a sticker as they complete each course

with a larger reward (a T-shirt perhaps) at the end of the program. Consider having some form of graduation ceremony or a special lunch for the graduates.

Never read course evaluations while in front of anybody. Evaluation forms may contain information that you disagree with. Take the forms back to your office and read them in private.

Evaluate yourself. Spend time after every course thinking about the job you have done. If you feel that the students did not understand something, think about your presentation and decide if you need to do something differently in the future. Consider your successes. If something worked especially well, remember it and incorporate it into your next presentation.

Summary

If you are going to incorporate only three points from this paper into your presentations, select these. Whenever students discuss why they react positively to my presentation, it always seems to be related to one of these three tips:

- Learn and use names.
- Make eye contact with each person.
- Smile and be yourself.