



State University of New York

THE GRADUATE SCHOOL
TA Orientation Handbook

Dear Teaching Assistant:

Welcome to the community of scholars and teachers at Binghamton University. I would like to congratulate you on the record of achievement that has earned you admission to the Graduate School and an assistantship; both are highly selective. We warmly welcome you to your new responsibilities and your new opportunities as a teaching assistant at Binghamton.

I believe you will find Binghamton University an excellent place for advanced study and original research in your field. Sharing the excitement of your interests and discoveries with the undergraduate students you teach may constitute one of the most rewarding parts of your experience in graduate school.

Binghamton's undergraduates are bright, curious and eager to learn. The freshman class has a record high achievement: nearly 80 percent ranked in the top tenth of their high school classes. The mean grade average for a typical freshman class entering Binghamton is above 92, and their SAT scores are among the highest at any public university in the nation. Their success continues after these students' graduation: Alumni have attended many of the most prestigious graduate and professional programs in the country and have compiled an impressive record of accomplishment in a wide variety of fields. Teaching such students is a challenge — a rich opportunity to redefine your own knowledge and ideas about your field. It can also be a great pleasure, as you learn more about your discipline and yourself.

Teaching is not a simple activity, and although all new graduate students can communicate about what they know, most new teaching assistants feel uncertainty, even anxiety, as they prepare to teach for the first time. This handbook is designed to help. It contains general information and advice about many facets of teaching that will help you formulate your response to particular situations. Balancing its general advice, it also contains a list of specific resources available to teaching assistants and to undergraduates at Binghamton University — the appendix "An Instructor's Guide to Student Services" gathers information about various services on the Binghamton campus.

I hope you have an excellent experience as a TA at Binghamton University. The Graduate School staff will assist you in any way possible to ensure that teaching is an enjoyable and fulfilling chapter in your graduate career. I wish you all the best as a graduate student and as a teaching assistant. Good luck!

Sincerely,

*Nancy E. Stamp
Vice Provost and Dean of the Graduate School*

Acknowledgments

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About the Handbook

Many graduate students serve as teaching assistants (TAs) at some point in their educational careers. A TA's role as an instructor is unusual, because few TAs receive any formal training in teaching skills. Sometimes people assume that graduate students will make good TAs simply because they have achieved a level of expertise in a field of study. However, being an expert in a discipline doesn't guarantee that a person will be able to easily communicate that expertise to others.

One of the first tasks new TAs must learn is how to teach a discipline to students in a way that makes the subject accessible and meaningful for the students. Otherwise, TAs may find teaching frustrating because they feel unable to share their own enthusiasm for a subject and teach their students the knowledge they've accumulated over years of study. Because the TA experience may be the only opportunity graduate students have to prepare for a future career as a college teacher, it's similar to an apprenticeship. This handbook was developed to help new TAs in their apprenticeship toward becoming competent university instructors. It draws upon the information and guidance of TA handbooks published by several other colleges and universities. The goal was to include the best of the existing literature designed to help TAs with the tasks of teaching, advising and evaluating students and with juggling the various expectations of graduate student life.

We see this handbook as the first step in a continuing project designed to develop materials and resources for beginning TAs. We hope our readers — students and faculty — will respond to this handbook by letting us know where more or different information would be helpful. We plan to include these suggestions in future editions to create a resource that adequately addresses the realities and concerns of TAs in a variety of settings.

Note: This handbook is primarily about the teaching element of teaching assistantships. It does not provide information on departmental or University policies governing teaching assistantships such as terms of employment, conditions for reappointment, stipends, etc. For this information, consult with your department or school.

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Part 1: Elements of the Teaching Assistant Role

In addition to working as an instructor, the teaching assistant is involved in a number of other responsibilities and relationships, most of which have many fewer formal guidelines attached to them than the role of instructor. This section outlines some of these other aspects of being a teaching assistant and provides some suggestions for operating in the TA role with respect to students, faculty and graduate life in general.

The TA as Graduate Student Time Management

(Adapted with permission from Unruh, 1986)

As a new teaching assistant you will probably find yourself juggling a number of related roles. You may be an instructor, tutor, student adviser and assistant to a faculty member, all while doing your own work as a graduate student.

Managing time is a critical skill for TAs. It is rare to encounter a TA who doesn't feel that something essential — sleeping, thinking, personal relationships, clean laundry, etc. — is being squeezed out of his or her life because of excessive time demands.

TAs need to consider carefully how best to manage their time within the constraints of academic life. Planning is the key issue. Planning (or “goal setting” or “prioritizing” — whatever you label it) is crucial to managing your time.

Making lists of goals may be helpful, arranging them in order of most to least important. Analyze goals in terms of specific tasks or activities you need to undertake in order to accomplish them. Decide what you need to do to get “from here to there,” and place the tasks in the order in which they must be done. (Remember to include goals and tasks that are externally imposed. You may not want to grade papers or take qualifying examinations, but because they are required as part of the larger goals you have, you need to plan for them.)

Be sure to consider which resources (money, people, time, etc.) will be necessary to achieve a task, then place it in a time context: Which task should be accomplished by what date or stage of your life?

Help from Senior Teaching Assistants

As a beginning TA, you should remember that you have a great resource at your disposal if you have questions or run into problems: other more experienced graduate students. They may be very helpful in letting you know how your department “runs”: whom to ask for specific kinds of information and who can provide you with needed resources (such as computer answer sheets, pencils, etc.) or services, such as photocopying.

Ask a senior TA to introduce you to your department's office staff, so you may get to know the people with the answers and resources you may need from time to time.

Your more experienced fellow students may also have quite a few suggestions about how to run a discussion or laboratory section, or how to

deal with students. Asking them about their classroom experiences may help you anticipate or resolve problems in your own discussion, lecture or laboratory. They may also have suggestions for ways to negotiate the relationship between TAs and faculty members, and provide advice for dealing with difficult situations.

Fellow graduate students can be great “sounding boards” for your troubles and concerns as a TA. You may find, on consulting someone who has been a TA, that your concerns are quite common and easily resolved. Experience is the best teacher when it comes to being a TA, so don't be afraid to ask other graduate students to share their wisdom.

The TA as Student Adviser Office Hours

(Adapted with permission from Unruh, 1986)

The TA's office is an important extension of the classroom. This is one of the few places where the protective shield of impersonality at a university can be broken.

Most TAs have office hours, but students are not required to come in during those times. Usually, office hours are scheduled before the semester begins and announced to the students during the first week of classes.

You may want to check with your students about convenient times before scheduling your office hours. Some faculty may ask that you schedule your office hours at times that alternate with theirs to increase the amount of time one or the other of you is available to students. While the number of office hours you decide to hold per week will depend upon the arrangements you make with your supervising instructor, two hours twice a week will probably be sufficient.

How do you get students to come in? Let them know frequently that they are welcome. Invite them individually. A comment on a paper (such as “Please see me about this”) brings about a 75 percent response. Stress the importance and value of office visits both to you and to your students.

Most TAs deal with freshmen and sophomores who are not used to personal contact with their university teachers. If the first few who come in have positive experiences, the good news will spread. Some TAs find that posting the answers to quiz or homework problems on or around their office doors is an effective means of attracting students, also.

Helping Students Individually

(Adapted with permission from Unruh, 1986)

Getting students to come to your office is not always a problem; you may find that many students will come in, for many different reasons. You may find yourself helping a student with the material for your course, with the logistics of a course that contains unfamiliar material, or with a personal problem. You should be aware of ways to make a tutorial or counseling session the most helpful:

- Try to be as approachable as possible. The best thing to do when a student comes in during office hours is to make him or her feel welcome. Don't make students feel that they are intruding. It takes only a little bit of care to create a relaxed, pleasant atmosphere in which communication is natural and easy.
- Rely on the student to tell you what he or she has come to see you about. You may suspect some hidden problem, but you shouldn't press the student to disclose it. You may help students if they actively request your help, but your responsibility need not extend further than their requests.
- Listen to your students when they come to your office. Give them your undivided attention. This is all part of making students feel welcome and encouraging communication. The best way to show that you are listening is to ask questions — it also shows students that you find their concerns important. Students often fear that they are wasting your time; by listening attentively and responding thoroughly, you can help reduce their anxiety.

Finally, you should realize that you won't always be able to provide the answers or information your students need. If you are helping a student with the material for your own course, there is nothing wrong with saying, "I don't know, but I can find out for you."

In a situation in which a student is asking for more personal counseling, remember that you are not always the best-qualified person to help. If you feel the student needs more specific advice, suggest someone who can provide it. The appendix at the end of this handbook was compiled to serve as a referral list. It may not be able to solve all the problems you may encounter, but it's a start. When in doubt, always consult the faculty member you're working with, especially if you feel that a student may be saving serious emotional or other difficulties.

While most students will not take advantage of office hours as often as they might, on occasion you may encounter students who are overly

dependent on you, either for assistance with course material or for companionship and counsel. You may need to set limits with these students. Encourage them to tackle assignments on their own before coming to you for help. Explain to them that you have limited time to spend with each student, so you must restrict the frequency and duration of office visits. You should, of course, refer seriously troubled students who seek your assistance to the University's professional counseling services.

Understanding Student Differences

In dealing with students both individually and in classroom settings, you should keep in mind the diversity of students attending Binghamton University. Undergraduates may vary in age, cultural or national background, level of academic ability, experience in a relatively rural setting or in general maturity. Sensitivity to these differences in your interactions with students may foster your sense of rapport with them, since they will be more likely to perceive you as understanding and tolerant.

For some specific guidelines in handling student differences, see the "Diversity Checklist" in the "Implementation" section of this handbook.

The TA as Faculty-Student Liaison

As a teaching assistant, you occupy an unusual position. You stand somewhere between the status of faculty member and the status of student; you are, really, a little of both. This position allows you to play the role of liaison between faculty and undergraduate students by communicating each other's needs and desires, understandings and misunderstandings to one another. This can be one of the most fruitful aspects of being a TA, especially when your participation as a mediator helps the overall process of learning (adapted with permission from Segerstråle, 1982).

Some ways in which this role may be played out include:

- taking time in discussion to ensure that the course organization and requirements are clear to students;
- providing students with an opportunity in discussion sections to clear up confusing points in the lecture;
- identifying any problems in the faculty member's lecture style or presentation (such as speaking too quickly or softly, failing to write enough on the board, being difficult to follow, etc.) and reporting them to the faculty member (gently!).

Be sure to use tact and good judgment here. It may be wise to wait until your supervising faculty member asks for suggestions. Some will be more concerned than others about how they come across to students. If you don't think your supervising faculty member will be receptive, it may be

better to drop the issue or to provide the clarification students need during your discussion sections.

TAs may also be helpful in the construction of examinations by letting the faculty member know whether the proposed examination material is adequately geared to the student's level of understanding. Because of your closer contact with students in sections or laboratories, you may be in a particularly good position to determine whether examination questions may be too difficult or not challenging enough. Not all faculty will include the TA in the process of constructing tests, but if you are involved, you may want to reflect upon your impression of the students' understanding of the course material while helping put the test together.

TAs may help students prepare for examinations or complete assignments by making the faculty member's expectations clear. Part of this involves helping students distinguish between relevant and irrelevant information (without giving it all away, of course). Depending upon the course and the faculty member's wishes, you may want to construct study guides containing important concepts and terms relevant to upcoming examinations. Spending some time in discussion sections reviewing for examinations may also be very helpful to students.

The TA as Faculty Assistant

Negotiating Responsibilities

Another element of the role of TA is that of assistant to a faculty member. New TAs may find this relationship very rewarding, since it provides them with a sort of apprenticeship in teaching. The TA-faculty relationship may also require a delicate balance of diplomacy and compromise, however, because the boundaries of the TA's responsibility and authority may be somewhat difficult to determine.

It's a good idea to attempt to determine your supervising faculty member's expectations of you early, and to establish the range of responsibilities you will have for the semester. These responsibilities may vary amongst faculty and across departments — some of which have well-established roles and responsibilities for their TAs. Therefore, our suggestions are offered as broad possibilities, not as "musts."

Some of the questions you may want to ask your supervising faculty member early in the semester include (Segerstrale, 1982):

- What do you want the section to accomplish?
- How much leeway do I have in running sections?

- Will you assign separate readings to sections, or may I make my own assignments?
- Is section attendance mandatory? Will there be a section grade?
- How much responsibility for grading will I have?
- How may I get some help for my teaching?
- How often will I meet with you?

There are many ways to get answers to these questions. Here are some suggestions to keep in mind as you begin to negotiate your responsibilities as a TA (adapted with permission from Bailey, 1986):

- Either ask directly, or wait until the instructor offers information.

Some faculty may tell you exactly what to cover in sections and assign particular readings for discussions. Others may say nothing and assume you already know what to do. In negotiating your responsibilities as a TA, deciding what to ask, how, when and of whom requires some subtle judgment capabilities on your part. Marching into a faculty member's office and making demands is certainly not a good idea, yet you do have the right to a sense of what will be expected of you throughout the semester. Your experience as a TA may go more smoothly if you learn to practice the fine art of negotiation in establishing a working relationship with your supervising faculty member.

- Bring up issues during meetings.

Some faculty members may want to meet with you weekly to address current issues and concerns pertaining to the course. Others may accomplish this more informally by meeting now and then, before or after class, etc. This setting is the one in which you are likeliest to fulfill your role as student spokesperson.

Again, it's wise to learn to negotiate these situations with subtlety and diplomacy. Misunderstandings occur between TAs and faculty when they take each other for granted and expect the other person to simply anticipate their needs and expectations. One instructor may want course materials brought from the library; another may want you to visit his or her office 15 minutes before each class — but it's impossible to know this unless the faculty member tells you so. Faculty who have worked with many TAs sometimes assume every single one knows what they expect, but TAs who are new to a faculty member need to learn by asking specific questions, such as "Shall I come up before class tomorrow?" or "Are there any handouts?"

If you have too much work, or if there are other problems, it almost always helps to talk to the faculty member. It's important to express your

respect and trust, and to make it clear that you understand his or her situation and point of view, also. The most important element in a relationship between a TA and the faculty member responsible for a course is open communication. (Adapted with permission from Unruh, 1986)

Ethics and the Teaching Assistant

Numerous aspects of the TA role may involve ethical dilemmas of some kind. Your roles as adviser, evaluator, administrator of examinations, authority figure and peer have the potential to become problematic at times, often because they present conflicting demands. In this section, we discuss some of these subjects and provide suggestions and resources for dealing with them.

Assisting Emotionally Troubled Students

Should a student come to you with serious emotional problems, or if you become concerned about a student's emotional health because of comments made in classes or in writing, you may want to refer the student to the University Counseling Center, where professional assistance is available. It's a good idea to consult with your supervising instructor first.

Sometimes students are reluctant to seek help or counseling. If you feel a student is hesitant about accepting a referral, or you are unsure about making a referral, you may consult with a Counseling Center staff member by calling 7-2772. The staff will help you work with a student during the referral process and can offer advice for dealing more effectively with troubled students.

The center provides a broad range of counseling services for Binghamton students. Its services are confidential; records are kept in the center and information is released only with the student's knowledge and consent. Services are available without charge to all students. The student may make an appointment by calling the University Counseling Center, LN 1202, 7-2772, between 8:30 a.m. and 5 p.m., Monday through Friday. The receptionist will arrange a meeting as soon as possible.

Academic Honesty

(Adapted with permission from the University of Tennessee)

Scholarship is at home only in an atmosphere of honest practice maintained by both students and faculty. All members of the academic community should conduct themselves in a straightforward and honorable manner. Study, instruction, evaluation and research may flourish well only in such an environment.

Academic integrity is a joint endeavor. Faculty should make appropriate preparations for all student-teacher encounters, meet classes as scheduled, evaluate students' work fairly and

impartially, and be prompt for prearranged conferences and regularly scheduled office hours. Inappropriate language in the classroom, off-color remarks or jokes in class as well as in personal conferences, and frequent deviations from the course topic have no proper place in the teaching academy. In turn, students should fulfill in a reasonable way the requirements and expectations of the course as stated by the instructor.

Specific guidelines and procedures concerning cheating, plagiarism and privacy of student records may be found in the Rules for Student Conduct, published by the Judicial Affairs Office. These rules are reviewed each year by the Binghamton University Council and distributed to students as part of the Student Handbook each fall to help them understand the code of standards and behavior expected of them. Copies of the Rules for Student Conduct are available from the Judicial Affairs Office (College-in-the-Woods 3B, 7-6210).

CHEATING

Within their shared enterprise, instructors have a rather heavy responsibility: making certain that students can function in an atmosphere free of academic dishonesty. Students need to know that if they work honestly, they will not suffer because of those who do not.

Challenging a student you think may have cheated or plagiarized is not pleasant. If you feel uncomfortable about it, a thoughtful discussion of the topic on pages 136-137 in McKeachie's (1978) Teaching Tips, as well as chapter 14, "Situations," in Eble's (1988) The Craft of Teaching, may be helpful.

If you have ample reason to suspect a student of cheating, it's usually a good idea to share the evidence with your supervising instructor or department head or director before acting. Be as sure of guilt as you can before questioning a student, since conviction of academic misconduct makes him or her likely to receive serious punishment. It may be wise (and some departments require it) to approach the student only in the presence of a neutral third party, in order to protect both you and your student from any possible charges of harassment. According to the seriousness of the offense, punishment may run the gamut from exoneration to expulsion from the University. However, even the suggestion of guilt is usually upsetting to students, particularly if they are innocent.

Plagiarism

(Adapted with permission from the University of Tennessee)

Generally, to plagiarize is to present as new and original a created production of another person without properly credit-ing the source: to

steal or pass off, in whole or in part, the work of another person as one's own. This, however, is not an all-encompassing definition of plagiarism. It is the instructor's responsibility and freedom to alter it to fit the course and discipline.

Plagiarism, as you see it, should be defined for the students at the beginning of each course. An example for the students of appropriate use of sources may be a well-presented lecture, in which you make a point of calling attention to citing your sources.

The Writing Center offers a handout on plagiarism that TAs may distribute to their students. The handout explains what plagiarism is, gives examples, and offers several suggestions for how students may avoid it in their writing. The handout also provides sample footnotes. Copies of the plagiarism handout are available in the Writing Center (LN 1209, 7-6725).

Privacy of Student Records

(Adapted with permission from the University of Tennessee)

Federal law provides for the confidentiality of student records. Each instructor must take care that student records are revealed to no one other than the student. If you post grades of any kind, be certain to establish for each student a special identification code only you and the student know.

Use the students' names and numbers to keep grade records, but do not permit any students to inspect those records.

The Family Educational Rights and Privacy Act of 1974 (FERPA), commonly known as the Buckley Amendment, provides students with access to their files and assures them of the confidentiality of their records. In keeping with this law, Binghamton University permits students to inspect their records whenever appropriate and to challenge specific parts of them.

Letters of Recommendation

(Adapted with permission from the University of Tennessee)

Students may ask you to recommend them for a particular job, acceptance to another institution or graduate school. If you feel you must decline, simply explain why. If you are willing to write the letter, do so promptly, while you still have the student and his or her performance sharply in mind. A carefully written and thoughtful letter takes time, but remember that others have done and will do the same for you. Writing letters of recommendation on behalf of others is a way to repay those who have helped you in your career.

Ask the student if there is a specific form to be used, or whether a letter is needed. Have the student note the nature of the job or situation for which he or she is applying and any particular abilities that you may mention.

Then, be as specific as possible. Focus on the student's best points, but don't exaggerate; be honest. Be sure to define the context within which you knew the person — in class or as an adviser (formally or informally), and state the period of time over which this relationship took place. If you later see the student for whom you wrote the recommendation, ask about the results. This not only lets the student know you are interested, but provides you with feedback on your letter-writing efforts.

Keep in mind that you are legally responsible for statements you make in your recommendation — to the extent, at least, that you are liable for any deleterious remarks you make. If you have reason to be concerned about something you wish to express, preface what you have to say with a phrase such as "To the best of my knowledge . . . "Remember that "libel and slander are both methods of defamation, the former being expressed by print, writing, pictures or signs; the latter, by oral expression."

Under the Educational Rights and Privacy Act, a student has the right to see a copy of your recommendation unless he or she is willing to sign a waiver. If you have no objections, this problem may be circumvented by giving a copy of the recommendation to the student.

Sexual Harassment

Issues of sexual harassment may be especially tricky for teaching assistants, because they occupy the roles of both instructor and student. TAs are in a particularly vulnerable position: As an instructor, you have some power over your own students, and as a graduate student, you are subject to the power of the faculty over your academic record and letters of recommendation (adapted with permission from Farris, 1985).

Therefore, you need to view the issue of sexual harassment from two directions: your potential for harassing (or being perceived as harassing) your students, and the potential for you to be harassed by those who instruct and supervise you.

Some general guidelines for protecting yourself and the students you teach from sexual harassment:

- Don't ask students to do favors for you of any kind. This will help to avoid misunderstandings concerning the singling out of students for what may appear to be preferential treatment.
- Schedule meetings with students during office hours or by appointment. For more informal meetings with individuals or groups, meet in public settings, such as the school cafeteria or a nearby café. It is important that students not misconstrue the sentiment behind informal get-togethers or

read inappropriate meanings into your invitation.

- Attempt to resolve disputes or disagreements with students in the presence (or within hearing distance) of other graduate students or witnesses. This may prevent a disgruntled student from making false accusations out of anger over academic matters. Another alternative is to meet with the supervising faculty member for the course and the student simultaneously, in order to avoid similar misunderstandings.

You may find more information about sexual harassment in a pamphlet, "Sexual Harassment: Definition and Prevention," available in the Affirmative Action Office (AD 138, 7-2388). Another handout, "Cultural Aspects of Sexual Harassment," is available from International Student and Scholar Services (G-1 Nelson A. Rockefeller Center, 7-2510).

Procedures for dealing with cases of alleged sexual harassment may be found in the Rules of Student Conduct, issued by the Judicial Affairs Office (College-in-the-Woods 3B, 7-6210). The Office of Affirmative Action is responsible for administering this policy.

International Teaching Assistants

Cultural Differences in the Classroom

(Adapted with permission from Unruh, 1986)

Cultural differences in teaching methods and appropriate conduct for students and teachers create challenges for the international TA beyond those encountered by the TA from the United States. In all countries, teachers are respected as authority figures, but the way an authority figure behaves differs from country to country. This affects the kind of homework, the type and extent of classroom discussion, and the style of papers and examinations that teachers and students expect. Reconciling these expectations with experiences as they knew them at home is one of the additional challenges faced by international TAs.

Teacher and student behavior in the classroom is also culturally influenced. There are subtle distinctions in the form and quality of posture and body movements, spacing and timing, eye contact, smiles and head nods. Whether you look or smile at your students while teaching, use few or many gestures, or stand or sit behind a podium or desk, affects how your students perceive you as a teacher and how effectively they learn.

Sometimes, as teachers, we may ignore these aspects of teaching, and overlook how profoundly these actions affect our liking and respect for one another and influence the quality and quantity of teaching and learning that occurs in the classroom. It is important, however, not to ignore or overlook them.

Teaching Tips for International TAs

(Adapted from Mahdi, et al., American Sociological Association, 1987)

• **Handling anxieties**

Anxieties and insecurities are common among international students just appointed to assist in teaching. After all, even native graduate TAs who are experiencing less culture shock may feel nervous. However, you may be even more uneasy about going into a class whose students speak another language and have a different culture.

The best you can do in this situation is to attempt to overcome these fears and try to build up your own natural self-confidence. Remember that you're not the only one who is going to face this situation. Many others have had this experience and have been just fine!

- "Foreign" is beautiful.

When you enter the classroom, consider yourself a "graduate assistant" and not a "foreign graduate assistant." While it's important to introduce your nationality, educational and cultural background, it's not wise, in many cases, to "act like a foreigner." It's important not to present yourself in a way that leads students to believe that you are "handicapped" or "different," which may cause your students to pity you rather than respect you. Be yourself, but don't give your students the impression that you are less than a capable and competent teacher just because you are an international student. Try to meet the expectations of the course the best you are able, but let your nationality or cultural distinctiveness work for you, rather than against you.

- Ignore prejudices.

Try to forget your own biases, prejudices and stereotypes, if you have any, about U.S. undergraduate students. While racist and sexist views may, unfortunately, surface among these students, you shouldn't assume that all of them share these views. Interaction formed on the basis of stereotypes, by you or by your students, may lead to a great deal of misunderstanding, suspicion, apprehension and conflict.

- Talk to friends.

In handling discussion, grading examinations, reading papers, making tests, designing classroom activities and so on, you may encounter some difficulties. In these situations, consult other TAs or friends. Instead of hiding problems, try to resolve them as soon as possible. It is wisest to discuss the problem first with your peers and colleagues in a "give-and-take" situation. Cooperation and consultation are very important aspects of teaching.

If the problem is not solved and there is a need for further cooperation, you should then discuss

the issue with the faculty member with whom you are working. It's not wise to hide issues and problems from the faculty member. It's easier and more constructive to have the instructor involved and informed about problems from the beginning, not only because he or she may be helpful, but also because problems may come to the surface in a way that could be disruptive to the whole course.

- Anticipate student problems.

If you're assigned to the task of running a discussion or dealing with students directly, you may find it helpful to consider this advice:

- ❖ If you're assigned to run a discussion or give a lecture, you may find it helpful to develop a systematic outline of your lecture or the main issues and questions to be discussed. Once you've done this, try to organize the outline as clearly, neatly and summarily as possible, because then you can write it on the board or distribute it as a handout in class. When you have an outline on the board, the direction of your discussion will be more clearly organized. When the headings are available on the board, and the connections are established in charts or formulas, there's less risk of going off on tangents. Furthermore, since the information is sitting clearly in front of the class, there's less of a chance of allowing the critical and challenging questions of students to loosen your control over the learning process. For example, having this outline prevents the unnecessary search into your notes and eliminates some of the conditions that may lead to a breakdown of classroom discussion.
- ❖ When lecturing or leading discussion, try to make your arguments as concrete as possible by using examples from everyday life. However, since you are an international student, you may have a tendency to use more examples from your own culture. This is fine, as long as you realize that the students in your class come from many places and cultures, and so long as you provide them with enough information to understand your examples. This is especially important when you use foreign jokes, slang and expressions. Also, remember that the use of too many examples from one specific foreign culture may make the students bored or uninterested. Try to diversify your examples and expand the scope of your topics of discussion.
- ❖ If you disagree with testing or grading procedures set by the faculty member and cannot convince him or her to change them,

make it subtly clear to students that the evaluation framework has been constructed solely by the faculty member. You need to do this, because if a test is difficult and the students are doing poorly, some may try to find someone else to blame — and they may blame you. Some may make remarks such as, "Foreign students should not grade our tests," "Foreign students are not capable of testing my ability," or "How can someone whose native language isn't English have the right to judge how I wrote my paper?" You must do your best to make it clear that you didn't make the decisions as to how students would be tested or graded; you are simply following the faculty member's instructions.

- ❖ Avoid using English words or terms that are hard for you to pronounce. If you're unsure of a pronunciation, check with the instructor or a peer before class. Writing the word on the board will ensure that students understand your meaning. Also, when students are asking questions or making comments, they may use words with which you're not familiar. As long as you can get a correct interpretation of what is being asked or said, you don't have to worry. However, if you aren't sure of the meaning of what is said, ask for further clarification or the specific meaning of the term.
- ❖ At times, you may use a word in a specific way, and feel that the students don't understand your point because of the specific meaning you have attached to a term. English words may have different meanings in different contexts, some of which you may be unaware. In these situations, don't insist that the meaning you know is the only correct meaning. Don't take a student's questions on the matter as an attack on your knowledge and teaching competency. Try to be open-minded and attempt to establish a dialogue in exploring different meanings of the term and aspects of the issue. Admitting your uncertainty demonstrates openness and a willingness to learn from students.
- ❖ When you are assigned the task of grading papers or examinations, make sure your comments and criticisms are well structured and accurately organized. Some students look for every opportunity to increase their grades, and may look upon any grammatical mistake you make as an opportunity to embarrass you into changing their grades. Make sure everything you write for students and every handout you give them is

structurally checked in advance and does not contain any grammatical flaws.

- **Improving interpersonal relations**

In many foreign cultures, less emphasis is placed on interpersonal relations between teachers and students than in the United States. Teachers stand at the front of the room and lecture, and students listen quietly without talking or questioning the teacher. In the U.S. culture, however, students frequently bring up points of their own or ask questions during class — teachers may even ask for them to do so — and discussion and debate are encouraged as part of the social and intellectual exchange.

However, you may find that your students simply sit listening to you and taking notes, and do not participate in class without your encouragement. This, too, can be a problem.

Some things you can do to encourage class participation and improve your social relations with your students:

- Invite members of the section to stay after class to discuss points made in class, rather than leaving immediately after class.
- Select one or two thoughtful members of the section, and, after class, say, “Now let’s talk about what I was trying to get at in this section,” or “What could I have done differently?” or “What did you get out of it?” Try to get an informal discussion going and encourage students to tell you how you have performed.
- Write a brief biographical questionnaire and have each member of the class fill it out so that members may learn about each other. For example, you might ask, “What brought you to the class?” or “What is your background?,” etc.

Orientation for New International Students

Binghamton University offers a three-day orientation session for new international students, scheduled for the week in August before classes begin. Students living on campus may check into residence halls. Orientation activities include a short English-language proficiency exam for all students whose native language is not English. This diagnostic test helps students determine which courses are most useful to them in the first semester, whether to select an English as a Second Language (ESL) course, and, if so, at what level they should study.

With the help of International Student and Scholar Services staff and specially trained Orientation Advisers, new international students are given an introduction to the campus and informed of important immigration regulations. They learn about

work authorizations, banking matters, health issues and academic planning. They also have an opportunity to meet with fellow students, advising staff and other University officials. For more information on the orientation for new international students, contact Maria Sabatino, international student adviser (G-1 Nelson A. Rockefeller Center, 7-2510).

Binghamton University also requires all new teaching assistants, both U.S. and international, to attend an orientation. Scheduled for the week in August before classes begin, this orientation is designed in conjunction with the orientation for new international students. Speakers include faculty known and honored for excellent teaching from various disciplines in Harpur College of Arts and Sciences and the professional schools, graduate students with experience as teaching assistants in various disciplines, and Binghamton University undergraduates. Large lectures and panels address issues including “When my class is at its best: the nature of excellence in teaching”; “Cultural differences and the classroom”; “How students learn”; “The great juggling act: balancing demands on a TA’s time” and “Authority and abuse in teaching.” Much of the orientation occurs in small-group sessions led by experienced TA mentors. New TAs gain practice in “microteaching,” or teaching an introductory segment in their discipline to a small group of their peers. Mentors lead the group in identifying strengths in their presentation and offering suggestions for improvement. For more information on the orientation for new teaching assistants, contact David G. Payne, vice provost and dean of the graduate school (AD 134; 7-2070).

Part 2: The Teaching Assistant as Teacher

Although most new teaching assistants are more anxious about completing their first semester without any major problems than they are concerned about developing a philosophy of teaching, successful teaching depends as much on theory as it does on technique. This section addresses both concerns. We offer here some useful suggestions on how to design a lecture or an objective test, so that you may begin thinking about why you are lecturing instead of leading a discussion, or giving a multiple-choice test instead of an essay examination (adapted with permission from Farris, 1985).

As a beginning TA, you may recall experiencing certain teaching styles during your student days — some more than others. Most commonly, you will be familiar with the lecture format. If you have little experience in participating in or facilitating discussion in classroom settings, you may feel you lack the interactive teaching skills you need to be successful in conducting discussion sections.

In your various roles as discussion leader, laboratory section instructor or lecturer, you may have the opportunity to use a variety of different teaching styles. The choices you make will depend on what you want your class to accomplish. However, regardless of the particular style you use, instruction includes three basic elements:

- *preparation*
- *implementation*
- *evaluation.*

We discuss each of these and describe how you may incorporate them into different instructional approaches.

PREPERATION

(Adapted with permission from Farris, 1985)

Since the duties of teaching assistants vary from one department to the next, and often from semester to semester, some parts of this section will apply more closely than others to your assignment. You may have partial responsibility in an upper-division seminar, substantial responsibility for two or more laboratory or discussion sections, or even full responsibility for a lower-division lecture course. Lecturer, discussion leader, lab instructor, test designer, reader and grader . . . all are roles you may perform at one time or another.

The process you use in preparing for classes will depend both upon the expectations of your department and the type of class for which you are responsible. Preparation involves establishing what you want students to learn (instructional objectives), choosing instructional strategies (lecture, discussion,

lab, individual presentations, group projects or a combination), and selecting the appropriate materials (texts, handouts, films, videotapes, etc.) to achieve those aims.

ORGANIZATION

Good organization is important to all phases of instruction, from curriculum development to determining presentation format. Organizing a course means much more than throwing together a conglomeration of lectures, discussions and handouts. From the syllabus to the final examination, every aspect of the course should be focused on defined educational goals, the most important of which is the level of learning you expect students to achieve (adapted with permission from Farris, 1985).

Establishing Instructional Objectives

Your first step in organizing a course (or single lecture, discussion or laboratory) should be to

establish the level of performance you expect from your students. This means giving them as understandable and concrete as possible. For example, rather than aiming to teach students “to do a chemistry experiment,” break this general aim down into its component parts: “to formulate a hypothesis, to design an experiment, to collect data, to analyze it, to draw conclusions,” etc. Then break each of these into its component skills. Or, to give another example, rather than aiming “to teach students a variety of historical viewpoints,” create an inventory of historiographical skills: “to distinguish between historical fact and historical opinion, to treat fairly an array of alternative historical interpretations to apply the criteria of sound historiography,” etc.

According to instructional development specialist Bette LaSere Erickson (1978, p.44):

“Writing clear statements of objectives is important for at least three reasons. First, writing objectives enables us to communicate our expectations to students so that we may focus and direct their learning and so that they may study more productively. Secondly, writing objectives encourages us to articulate our goals clearly enough so that they become useful guides when the time comes to select teaching methods, learning activities, and evaluation techniques. Finally, writing objectives enables us to communicate our expectations to colleagues so that discussions about what should be learned and how it may be taught are fruitful and productive.”

Bloom (1956) proposed a taxonomy of six educational objectives that move from lesser to greater levels of abstraction and complexity in the thinking processes required of students. Instruction may be organized around one or more of these hierarchically arranged objectives: knowledge, comprehension, application, analysis, synthesis and evaluation.

Particular teaching styles tend to lend themselves to the accomplishment of certain objectives rather than others. For example, lectures facilitate learning at the lower end of the taxonomy — knowledge, comprehension and application — while discussions or other more interactive teaching styles tend to facilitate higher-order objectives — analysis, synthesis and evaluation. Your choice of teaching style should reflect the level of thinking and learning in which you want students to be engaged. *Selecting Instruction Strategies* (Adapted with permission from Farris, 1985)

Once you have decided on your objectives for a particular course, lecture or section, your next step is to choose the means of instruction that will enable students to perform at the level you expect. If you need to cover 50 years of research in 10 weeks, you will probably lecture. If students must

clear and detailed statements of what it is you want them to learn. Instructional objectives should be capable of applying course material, you will not only have to present factual material through texts and lectures, but also show them how to develop generalizations from the background material (through discussion, study problems and assignments) and provide them with opportunities to apply newly learned principles in novel situations (through laboratories, writing activities and examinations).

To help match teaching strategies to your objectives, ask yourself some of the following questions (adapted with permission from Ronkowski, 1986):

- When should I lecture, and when should I hold a discussion?
- When should I be showing students how to do something, and when should I encourage them to try it themselves?
- When should I respond to a student question (give information), and when should I encourage other students to respond (give opportunity for students to practice skills)?
- If I see someone make a mistake in a laboratory, when should I correct the mistake, and when should I let the student discover it?
- When should I review important concepts orally, and when should I use handouts?
- If I need to show a student many formulas or graphs, should I derive or draw them during class, or prepare handouts/overhead transparencies and discuss them?
- When should I rely on my own expertise, and when should I seek outside sources (films, slide/tape programs, guest speakers, etc.)?

By considering such questions, you can begin to formulate strategies and techniques that match the general objectives you have set for students.

The Syllabus

(Adapted with permission from Northeastern University, 1986)

As a teaching assistant, you may or may not have the opportunity to construct your own syllabus. Many TAs will simply follow the syllabus as it has been outlined by their supervising instructor. It’s important that you familiarize yourself with the policies and procedures that the instructor has outlined, since you will most likely be called upon to implement them at some point. Be sure to clarify any policies that are unclear or problematic, since you want to avoid a situation in which there is a discrepancy between your actions and the instructor’s policies.

Some instructors attempt, if time permits, to include the TA in the construction of a syllabus, making the TA's name, office location, office hours and telephone number available to students at the beginning of the semester. This practice may be helpful in establishing rapport with students, since they will know who you are and where they can find you when they have questions or need help. The TA's responsibilities as a section leader, lecturer and grader may be outlined here as well, making students aware from the start that the TA's authority as a teacher and evaluator is supported by the faculty member teaching the course.

The first day of class may be an anxious experience for your students. Students enter the first day of class with at least four questions (Erickson, 1984): 1) Is the class going to meet my needs? 2) Is the teacher competent? 3) Is the teacher fair? and 4) Will the teacher care about me? To this list we would add: 5) What does the teacher expect from me? 6) What will I need to do to get a good grade? and 7) How will I juggle the workload for this course with the workload in my other courses?

While what you do on the first day of class will address many of these questions, your course syllabus can also do much to calm student anxiety. The syllabus addresses the question of whether the class will meet student needs by presenting an overview of its scope and coverage. The issue of competence is less obviously handled by your syllabus; however, students will make judgments about you based on such syllabus factors as course structure and organization, how well learning activities (such as assignments and examinations) are tied to course goals, and how clearly you have outlined your goals, policies and expectations. The issue of fairness is covered by your statements of policies and expectations. Whether or not you care about your students will come across mostly in face-to-face interactions, but your students will also make judgments on how much you care about them based on syllabus contents. What you expect of your students and what they will have to do to get a good grade are covered by your statements of goals, policies and expectations. Finally, the students' concerns about workload are addressed by your statements of schedules, assignments and examinations.

The ideal syllabus (either yours or the instructor's) should serve as a basic reference document for both you and your students, and should include:

- General logistical information: course name and number, meeting time and place, your name (and/or the instructor's), office address, office phone, office hours, mailbox location

- Course objectives: what it is you expect students to learn
- Course requirements: homework, papers, examinations, discussions, laboratories, fieldwork
- Course calendar: topic outline; examination, paper, laboratory and any make-up schedules
- Attendance and late-work policies
- Grading criteria and the approximate weight of each course requirement in the final grade
- Course materials: texts, software, equipment; whatever students need to participate in the course.

Class Rosters

The supervising instructor for the course in which you are a TA will receive a class roster at the beginning of the semester. A revised roster will arrive later in the semester that reflects the class size once students have dropped and added the course. You may want to make a photocopy of the roster for keeping attendance records in your sections or laboratories, or to record grades throughout the semester. It's always advisable to have at least one duplicate copy of your recorded grades in the event that your instructor's roster is misplaced.

The use of computer-generated spreadsheets may also be an efficient way of keeping track of student grades, attendance patterns and general background information (telephone, address, class schedule, etc.). Many computer software packages are now available that will run programs for calculating final course grades, saving you and the instructor considerable time and energy.

Classrooms

(Adapted with permission from the University of Tennessee, 1986)

Before your first class meeting, it's wise to check the room where you will be teaching. Occasionally a clerical error occurs, causing the class to be scheduled in a broom closet or non-existent room. If this happens, when you get another room, post a sign near where the assigned room would have been, directing students to the new location. Some difficulties may also arise regarding the amount of board space, number of seats or physical condition of the classroom. If you have a problem with the room you have been assigned, contact your department office; usually, the undergraduate secretary handles requests for room changes. Classroom space is at a premium, and "prime time" classes are not easy to reschedule. Your department office will contact the Registrar's Office and attempt to solve room problems.

Once you're settled, take a look at the way the room is organized. Seating is a prime consideration, and it can do a great deal either to help

or hinder what goes on in your classroom. The traditional rule of thumb is to make sure that students are clearly within the instructor's range of vision.

Remember that you may be able to manipulate seating to foster any number of effects, from closeness to conflict. There are any number of ways to arrange seating. You'll want to experiment and solicit suggestions from students. For example, if you want to encourage discussion, place desks or chairs in a circle or horseshoe. This arrangement facilitates the give-and-take of conversation, because students can see one another when they talk. Students are also much more likely to get to know one another in a face-to-face seating arrangement and are more apt to stay attentive throughout the hour, as it is difficult to withdraw or "space out" from a circle without being noticed. If you plan to lecture, arrange the furniture so that all the students can easily see you without straining. Ask your students to comment on present arrangements and on what would be useful for them.

Good environments are frequently flexible ones. Feel free to have students move their chairs several times during a class. For example, you may have them move into a circle for discussion, into small groups for in-depth exploration of a topic, and back to rows for your lecture. Experiment with different room arrangements to find those that work best for you (adapted with permission from Ronkowski, 1986).

IMPLEMENTATION

Choosing an Instructional Style

Having established goals and objectives and chosen appropriate instructional materials, you now have the opportunity to implement these plans in a variety of ways. It's important to remember that "the instructional strategies and techniques that you adopt as a teacher bespeak your attitudes about yourself and your students and your respective roles in the teaching process" (adapted with permission from Crow, 1980).

Differences in teaching styles, and their implications, are described in a number of ways by different authors. One model proposes three potential foci in teaching that include (adapted with permission from Axelrod, 1980):

- **subject matter-centered teaching**
in which teaching is organized around the goal of helping students master principles, concepts, analytic tools, theories, facts, etc., in a particular discipline
- **instructor-centered teaching**
which is organized around the goal of helping students learn to approach problems in the field as professors approach them . . . concentrating on transmitting segments of

knowledge that are considered "standard" in the field

- **student-centered teaching**

which emphasizes the personal development of the whole student, organizing class sessions around the desire to help students develop as individuals, morally and socially, as well as intellectually.

These categories are not, of course, mutually exclusive. Throughout the duration of the semester you may use elements of one or another approach, depending on what you want your class or section to accomplish. The approach you adopt will most likely reflect your assumptions about the fundamental nature of student-teacher relationships.

Interactive Teaching Style

Another approach to the discussion of teaching styles focuses on the amount of interaction between students and teachers that is built into the classroom situation. A significant body of educational research has concluded that the more active involvement students have in the learning process (through discussions, question-and-answer sessions, group projects, presentations, etc.), the more information they retain and the more enjoyable they find their experience (adapted with permission from Crow, 1980).

Using an interactive teaching style may result in the following benefits for students (adapted with permission from Crow, 1980):

- active rather than passive participation in the learning process
- longer information retention
- experience in collaborating and cooperating with others
- enhanced problem-solving and critical thinking skills
- better learning
- enhanced self-esteem through class participation
- opportunities to clarify beliefs and values
- an increase in motivation for future learning.

There's considerable evidence that teaching techniques that increase interaction between students and teachers, and among students themselves, tend to emphasize cognitive tasks at the higher levels of Bloom's taxonomy of educational objectives. So, in choosing an instructional style for your course or section, it's helpful to keep in mind what you feel is most important for your students to learn.

The means through which you carry out your objectives may either help or hinder what you are trying to accomplish with students.

"First Class" Tips

(Adapted with permission from Unruh, 1986)

The first class sets the semester in motion, so it's wise to consider carefully what you want to do in that first meeting. The following ideas may help you structure the meeting and ease some of your anxiety:

- If you want to achieve an informal style, arrive early and begin to know your students. This will help you relax and help your students get to know that you are a student yourself. If you prefer a more formal style, wait until the appointed hour and then enter the classroom. Allow a little extra time for "lost" students.
- Once you begin speaking, try to speak slowly and repeat what you've said whenever you feel panicky. Remember to slow down your rate of speech and focus your attention on what you want to get across, instead of how you are saying it or how you appear.
- Begin by introducing yourself and write your name on the board. You may go around the room and ask for names, departments, city of origin and the like. Remember, your students are at least as nervous as you are. Locate each name on the roster, and make a point of learning the names.
- Let your students know that you are organized. Give them a handout including information such as:
 - your name and office hours
 - times and locations of other class meetings
 - the instructor's name and office hours
 - your office telephone number
 - the required text and readings
 - the number and dates of examinations
 - information about laboratory or homework assignments
 - guidelines for term papers or class projects
 - an explanation of how course grades will be determined
 - the time and date of the final examination
 - whether class notes are available
 - other information of interest.

Much of this information may overlap with the content of the instructor's syllabus, so use your own judgment about what is important to include in your own handout.

- Prepare for predictable enrollment problems and procedures. If there's a waiting list, give students on the list an idea of their chances of getting into the course.
- Briefly sketch the kind of material presented in your class and the kinds of activities required of students through-out the semester. Explain why you, as a graduate

student, are excited by the course material. Your excitement may be contagious.

- Be enthusiastic! Enthusiasm comes with confidence, excitement about the subject and pleasure in teaching. Enthusiastic behavior includes facial expressions and smiles, attentiveness to students, movement away from the podium or board, and eye contact that is long enough to observe students' expressions. It involves vocal inflections to emphasize and de-emphasize material and a willingness to listen to students and express interest in their contributions. Students can spot an unenthusiastic instructor very quickly, and may assume that if the subject matter is not of interest to you, the instructor, it is probably of no interest to them, either! (Adapted with permission from the University of Nevada, Reno)
- Finally, ask if there are any questions regarding the course, its requirements or your role within it. Be sure to pause long enough for students to reflect and formulate questions.

Skills of a Good Teacher

(Adapted with permission from the University of Illinois, 1980)

N. L. Gage, director of research and development in teaching at Stanford University, formulated six characteristics of effective college teaching. Gage (1976) found that "effective" presentations of college instructors include:

- stating objectives at the beginning of a lesson
- outlining the lesson content
- signaling transitions between parts of a lesson
- indicating important points in a lesson
- summarizing the parts of the lesson as the lesson proceeds
- reviewing main ideas and facts covered in a lesson, at the end of a lesson and at the beginning of the next lesson.

You should be satisfied with your initial teaching experience if you can successfully integrate Gage's six characteristics into your teaching approach. However, remember that not all lessons proceed as planned. Allow some class time for reviewing and previewing of material and for unexpected events. Be organized and allow some flexibility in your planning.

As with any valuable talent, instructional skill takes time to develop. Work on one or, at the most, two skills each week. Try not to be discouraged if at first you do not "knock 'em off their feet." Teaching is not an easy task.

BUILDING A SUPPORTIVE CLASSROOM ENVIRONMENT

(Adapted with permission from Unruh, 1986)

An important ingredient of teaching is your classroom style. What should the teacher-student relationship be? Our suggestion is that you be natural and honest. The teacher-student relationship is really another human relationship, in which people often play roles according to a set of social standards that seems appropriate.

You're more likely to be a successful teacher if you accept these facts:

- you have more experience and knowledge than the students
- you are being paid to help them learn
- you have chosen to adopt either a formal or informal style
- they are each in your class for a different reason (of which you should try to be aware).

Base your actions on the situation at hand, rather than on some idea you have of what a teacher is or on the expectations of the class. The following suggestions may be helpful in establishing the kind of classroom environment that will help students learn and make your experience as a teacher more comfortable as well. (Adapted with permission from Arnes and Archer, 1980)

- ❖ Learn students' names.

This may seem like a simple suggestion, but it has profound results. All of us respond to being approached individually and personally, and the logical way of beginning that process is calling us by our names. The immediate problem is how to learn the names of 50 or more students each semester. One way of approaching the problem is telling the students on the first day that they may sit anywhere they choose, but that you would like them to sit in the same place for a week or two so that you can learn their names. In smaller classes, you can have them introduce themselves and provide some biographical information, which may aid you in recalling their names later on.

You may also gather biographical information on students by asking them to fill out index cards or to complete a short survey at the beginning of the semester. This information may be valuable in helping you to assess "where your students are" in terms of their academic backgrounds, and may also alert you to opportunities to make course material

more meaningful by integrating it into students' personal experiences.

- ❖ Show a personal interest in each student.

This sounds simple, but it requires some effort and energy on the part of the teacher. This strategy is an extension of the suggestion to learn your students' names; it is one step further in personalizing relationships. Learning how many siblings or children a student has, what his or her personal interests and hobbies are, or what kinds of books he or she likes to read may help you establish a warm relationship with that student fairly quickly. Teachers of composition courses may have an advantage here, because students often reveal personal areas of their lives in writing, but whatever your discipline, you need to find ways of bringing out students' personal interests.

- ❖ Relate to students on a personal level.

This is the complementary side of learning something personal about each student. It's important for you to be willing to share parts of yourself and of your personal life with your students if you expect them to share with you. There are a number of easy ways of accomplishing this. In classroom presentation, you may speak occasionally from personal experience. This will encourage students to respond to you not only as an authority figure, but as a person. However, use discretion with this technique; no one wants to spend a semester listening to an instructor telling his or her life story.

- ❖ Avoid judging students.

Without realizing it, teachers may exhibit judgmental behaviors that discourage students by making them feel even more inadequate than they already may feel. Try not to judge students on the basis of their appearance or dress. We shouldn't allow ourselves to be "turned off" by a student who is unkempt or who is wearing non-traditional clothing.

Another behavior to avoid is sexual stereotyping. Teachers shouldn't assume that females have a certain set of interests and males have another.

Age stereotyping is another judgment trap. Teachers shouldn't expect certain behaviors from people in certain age groups; for example, assume that older students are automatically more self-assured or serious about their work than are 18-year-olds.

As much as we may believe that we are not prejudiced, racial or ethnic considerations may cause us to react subconsciously in ways that students find disturbing. For example, do you expect different attendance patterns from certain groups of students?

Do you find yourself avoiding certain subjects in the classroom because of the fear of offending somebody? Do you tend to target your examples towards certain groups in your class? Do you assume that students have certain expertise based on racial or ethnic characteristics? Becoming aware of this type of judgmental behavior can help you avoid it.

See the “Diversity Checklist,” later in this section, for additional guidelines in handling student differences.

❖ Treat your students as adults.

Sometimes teachers unwittingly put down their students by treating them as children, by overlooking them or by exhibiting impersonal kinds of behavior. One example you’ve probably seen is of a teacher turning away from a student to address a colleague who is walking by. If you don’t excuse yourself to the student or introduce him or her to the colleague, you are treating him or her as a less than responsible adult. Perhaps the most effective approach is introducing your student to the colleague; you may be able to include the student, at least for a short time.

Another way of making your students feel important is spending time with them. This could be in the cafeteria or in the office. Before and after class, you may chat informally with groups. When you meet a student in the hall or on the campus, smiling and giving a personal greeting is very effective. Call the student by name; it makes a great deal of difference.

❖ Provide specific positive reinforcement.

Taking the time to compliment a student on some specific thing that he or she has done well can have tremendous payoffs for a teacher. The key here is being specific. Students will sense a lack of genuineness if you compliment them profusely and generally, but if you can pick out one particular element of their work or one particular aspect of their attitude that you like, your comment will have much more meaning. For example, a student who has written a paper that is not particularly effective but who has used a striking metaphor may be complimented on that use. You may compliment a student on the perceptiveness of a question; if you indicate that you remember him or her asking several other perceptive questions, your compliment will be more impressive.

One word of caution: you need to be alert and sensitive as to how your student are receiving the words. Some students feel uncomfortable about receiving compliments at all, and will become even more uncomfortable if the compliments continue. An

understanding of basic body language and facial expressions is helpful here.

❖ Provide non-verbal encouragement.

Establish a secure, reassuring, positive atmosphere. There are several ways of encouraging such an environment that do not involve the spoken word:

- Maintain eye contact with students.
- Move around the room.
- Be animated and expressive in your presentation.
- Control nervous mannerisms.

Fiddling with a tie or with a lock of hair indicates to students that you are not self-confident. This can be particularly unnerving to students. Students react positively to teachers who seem to be firmly in control of the classroom situation.

❖ Never humiliate a student.

Although you don’t intend to humiliate students, you may inadvertently interact with them in ways that are embarrassing or that make them uncomfortable. Even if such embarrassment is subtle, it can discourage a student and make it difficult for him or her to come back to your class.

Avoid sarcasm with students, as well as teasing that is destructive in nature. Determining what may be dangerous is sometimes difficult and requires a good bit of perception on the part of the teacher. A young woman, for instance, who has little experience of life may be embarrassed very easily, even by a compliment.

A general rule of thumb is to respond to students in the same way they deal with you. If the students tease you, you can feel reasonably assured about responding in the same way.

❖ Recognize when students are growing bored or tired.

We all have observed inattentive behavior in teaching situations. Some behaviors to look for:

- shuffling or shifting in chairs
- persistent coughing by one or more students
- glances at other students or watches
- whispered conversations with other students about subjects other than the class material, or note passing
- reading newspapers or books instead of paying attention to the instructor
- using personal electronic devices to send or read “instant messages” or e-mail during class or play games

- stacking books and preparing to leave class when there is still considerable time left toward the end of the class period.

Also notice posture, attitude and lack of eye contact. Students who are slumping in their seats, whose attention is difficult to get when you ask questions, and who do not look you in the eye are usually bored students.

When you notice such behaviors, your response should be immediate and decisive:

- Silence is often effective in regaining student attention.
- Calling a student by name to engage him or her in conversation is also helpful, so long as you are not simply trying to embarrass or shame the student by pointing out his or her inattention to the rest of the class.
- Moving about the classroom may help. If a student senses your presence close by, he or she may become more alert.
- Changing the pace of the class can be effective. Break-ing the rhythm of your usual behavior can break the monotony.
- Try allowing breaks, particularly in classes over an hour and 15 minutes long.
- Be as positive as possible.

This isn't easy when you are having a hard day, but there are some techniques that will make you and your students feel positive:

- Voice quality is extremely important. Be energetic and bright in your inflection. A monotone or a deep, tired voice will give away your lack of interest.
- Be willing to laugh in class, and encourage your students to laugh as well.
- If at all possible, be available before class for small talk, chatting and greeting students. Sometimes this will be therapeutic for you; if your energy level is running low, a few exchanges with students will energize you.
- Make yourself available.

Any teacher who is responsible for teaching two or three sections of English composition or for teaching three laboratory courses will recognize that making himself or herself available beyond these responsibilities is often a difficult thing to do. However, it's essential, particularly with students

who may be having difficulty. You're serving as a role model to these students, and keeping reliable office hours gives them a sense that you're committed to helping them.

If you set office hours, be sure to keep them. Be on time. Spend as much time in the office as you have promised; if for any reason you won't be able to be in your office on a given day, give your students advance notice. You have made a contract with them, and you should keep it.

Also, be in class for all of your allotted time. If you are frequently late, it sends the message to your students that you don't care about them very much, and that you don't care whether they arrive in class on time, either.

- ❖ Commit yourself to at least one individual conference with each student.

These conferences need not be long when the students do not have significant problems. They may simply be friendly, personal conversations — but this kind of conference shows the student that you care about him or her.

For students with significant problems, the conference is crucial. Often a conference is the only means of convincing them of your interest. Sometimes you may solve some of the student's problems yourself, or you may guide the student to someone who can help him or her. (Surprisingly, many students are not familiar with the counseling services available at the University.)

However, remember to discuss a serious student problem only with the student (or perhaps, if you feel it necessary, the instructor in charge of the class). Respect the student as an adult, and keep information concerning his or her performance confidential.

- ❖ Talk to students when high-risk patterns develop.

Examples of high-risk patterns are several missed assignments, frequent absences and lateness. Telephoning students may be an effective way of reaching them; students are often impressed that an instructor would take the time to call them.

- ❖ Devote the first week of class to creating a positive learning environment.

Research indicates that students who feel comfortable in the classroom and who have some positive rapport with the teacher are much more likely to speed up learning processes as the semester goes on. Students often surpass normal course expectations if they feel very positive about the learning climate. In the long run, you will accomplish more teaching by devoting the first few classes to creating a supportive environment.

Diversity Checklist

(Adapted with permission from Jenkins, Gappa and Pierce, 1983)

Faculty and TAs may find it difficult to be aware of how they interact with students in the classroom while giving lectures or guiding a discussion. Have a friend, colleague or teaching assistant “sit in” on your class and observe some specific behaviors of yours or of your students. This informal observation may give you a fresh perspective on how you and the students interact. You may even ask a student to make an audio tape or videotape of some of your classes so that you may review the recordings and analyze them. While doing so, ask yourself:

- What language patterns am I using?
- Do I often use the terms “he,” “him,” “man” or “mankind” to refer to people in general?
- Are stereotypical assumptions about men and women, people of color or people of foreign origin revealed in classroom dialog?
- Are examples and anecdotes drawn from men’s lives or from white culture only?
- Do I reinforce different students in different ways, or provide more reinforcement to some students than others?

Below are brief summaries of key points to consider, arranged in checklist form.

Classroom Interaction

- Are you conscious of sex or race-related expectations you may hold about student performance?
- How do you react to uses of language (accent, dialect, etc.) that depart from standard English or that are different from your own? Do you discount the speaker’s intelligence and information, or do you respect it?
- What is the proportion of males versus females, or students of various racial or international groups, called on to answer questions? Which students do you call by name? Why?
- Do males, or females, or students of a particular race or nationality, participate in class more frequently through answering questions or making comments? Is the number of them disproportionate enough to the number

of other students participating that you should encourage some students to participate more frequently?

- Do interruptions occur when an individual is talking? If so, who does the interrupting? If one group of students is dominating classroom interaction, what do you do about it?
- Is your verbal response to students positive? Aversive? Encouraging? Is it the same for all students? If not, what is the reason? (Valid reasons occur from time to time for reacting or responding to a particular student in a highly specific manner.)
- Do you tend to face or address one section of the classroom more than others? Do you establish eye contact with certain students more than others? What are the gestures, postures and facial expressions you use, and are they different for men, women, people of color or international students? Or do you address all your students in as much the same way as possible?

Texts, Lectures and Course Content

- Do you and the texts you choose use language that is sex-neutral? If you text uses masculine generic terms, do you point this out in the classroom?
- Do your texts and lectures incorporate new research and theory about men, women and people of color? If not, do you point out areas in which scholarship about gender and race is modifying the discipline? Do you provide additional bibliographic references for students who want to pursue these issues? When you order books for the library, do they reflect these changes in the discipline?
- Do your lectures and texts portray the activities, achievements, concerns and experiences of women, people of color or people of foreign origin? If your texts do not, do you provide supplemental materials? Do you bring omissions to the attention of your students?
- Do your lectures and texts present the careers, roles, interests and abilities of women and people of color or foreign origin without stereotyping? If there are stereotypes in your texts, do you point this out?

- Do your lectures and texts use balanced examples and illustrations (both verbal and graphic) in terms of gender and race? If your texts do not, do you point this out?
- Do your texts and lectures reflect values that are free of bias with respect to sex, race and ethnic or national origin? If not, do you discuss your/their biases and values with your students?
- Do your examinations and assignments encourage students to explore the roles, status, contributions and experiences of women and people of color or foreign origin?

Classroom Management

(Adapted with permission from Unruh, 1986)

In most cases, you will eventually face students who present various kinds of management problems. A common example is the student who wants to talk too much, frequently about irrelevant material. Treat these students with respect, but make it known that they are overpowering the discussion; by systematically calling on many members of the class, you may often create a very active class. Students seldom want one person to dominate the discussion any more than you do.

Frequently, it is useful to talk to the student who “talks too much” outside of the class. Students usually respond to your request for less or different participation on their part. Sometimes, however, they lapse back into the old pattern. It’s a natural pattern for this kind of student. Remember that these students are seldom deliberately destroying the class; they think they’re adding to the class with their participation. Don’t hesitate to remind them politely if they forget their talk with you.

Some students make sarcastic remarks or insult others — the instructor, their fellow students or both. This can create an intimidating climate. One technique that’s often effective with students who make wisecracks or insult others is to treat their remarks as straightforward statements. Treat sarcastic remarks as if they were not sarcastic. Some of these remarks should, of course, just be ignored. Either treatment takes the sting out of the comment, because you’re not responding the way the wisecracker wants you to respond. If a student tries to hurt you or embarrass you or undermine your authority by insulting you, refuse to give the student the reaction he or she wants. You’ll be doing the rest of the class — and yourself — a favor.

Resolving Disagreement

(Adapted with permission from the University of Tennessee, 1986)

New instructors are often afraid to admit to having problems with students, because they feel that these problems are their own fault, or that they constitute a poor reflection on their own youth, inexperience or teaching ability. However, even experienced, highly capable older faculty can have similar difficulties.

Some students sense when a faculty member is inexperienced, and believe they can “get away with” more inappropriate behavior as a result. They may take advantage of any insecurity they perceive in an instructor.

In dealing with disagreements, confrontation and inappropriate behavior, a new TA or instructor should seek the advice or guidance of a more experienced person. Department heads and coordinators for teaching assistants have dealt with similar problems and can advise you on appropriate steps. For these reasons, and for the reassurance it gives, it is usually best to discuss your interpersonal difficulties with someone who can help you.

Dealing with a student who disagrees by being polite, calm and rational with the student is a pleasure. If you state your position in this way, the two of you are almost certain to reach a reasonable solution. It’s with open hostility or conflict that most problems occur. Here are some suggestions for dealing with confrontation:

- If the confrontation occurs in a public setting, consider removing it to a private setting, such as an office. Sometimes a confronter relies on the public nature of the attack and the encouragement of other students to press the argument. (However, if you are concerned that this student will take advantage of this privacy later to report to others that you said or did things you did not, you may prefer to handle the situation in public, with witnesses. However, do not allow witnesses sympathetic to the student to cause the argument to escalate.)
- Listen carefully, openly and professionally to the full criticism or grievance. Do not attempt to interrupt and respond while the student is still talking. Let the student express all existing problems. Repeat the main points of the argument, as you understand them, to be sure both of you see the same issues.
- Accept any valid criticism and state your intended corrective action. Show a genuine willingness to compromise where you feel it is appropriate.
- Explain that you have different thoughts on the issue and would like an opportunity to express your point of

- view. State your opinions, and allow your critic to respond.
- If it appears that the issue cannot be resolved in a mutually satisfying way, say that you regret that there remains a difference in view. Restate your position, making clear any action you intend to take. Indicate what recourse your critic has to other appeal channels.
- Move in a polite and professional manner to close the conversation.
- If the critic becomes agitated, remain calm. Often your remaining calm will return the conversation to a more placid tone.
- It sometimes helps to ask a colleague to join in a confrontation, if the colleague can remain neutral and point out possible routes for solution of the problem. The student can also see the other person as a guarantee of fairness in the proceedings.

Using Instructional Media

(Adapted with permission from Unruh, 1986)

Audio-visual materials (including photographic slides, overhead transparencies, films, videotape recordings, charts, diagrams, models or illustrations) may make presentations more effective by displaying new information, eliciting an emotional response, suggesting something new, or explaining (or raising) questions. They can strengthen teaching by stimulating students' interest and directing their responses and learning.

Unique materials keep presentations interesting. Even if they are not unique, creative use of audio-visual materials helps the instructor challenge students with the unexpected. For example, one instructor showed his students only the last few minutes of a film, and asked them what they believed was in the portion they had not seen.

Attractive as they may be, however, instructional media materials are only as good as the planning, thinking and preparation that preceded their use. They are most beneficial when chosen selectively to fit your instructional objectives.

Before choosing to use certain materials, ask yourself:

- Is there a strong possibility that attitude or behavior change will be an end result?
- Will the presentation improve recall or help students remember important facts, enhance the quality of discussion or increase students' ability to apply information?

- Would the information be more effectively presented in another way?

You may obtain assistance in the selection, scheduling and use of films, videotapes and related equipment through the Educational Communications Center (LH B-60; 7-4750). Available from this office are 16mm projectors, 8mm projectors, 35mm slide projectors, projection screens, tape recorders, record players, VHS players and extension cords, as well as an impressive selection of films and videotapes in many subject areas. It is best to preview and reserve the desired materials a week or two in advance.

Ordinarily, the audio-visual department will deliver reserved equipment to your classroom. Teachers of residentially based courses, however, must arrange their own transportation, as the department will not deliver equipment to the residence halls. Fortunately, most residence-hall lounges are already equipped with VCR-compatible television monitors.

Board Use

(Adapted with permission from White and Hennessey)

Perhaps the most widely used medium of instruction is the writing board (whether a chalkboard or dry-erase board). The guiding principle of board work is to look at your writing as though you were a student in your own class. Almost anything you put on the board will be clear to you; the task, however, is to make your presentation clear to your students.

Some points to keep in mind while planning a board presentation are the following:

- Students must be able to see and to read what you have written. Writing they cannot see or read is of no use. Be aware and make adjustments if you have small handwriting, tend to scrawl, or write too lightly. To test yourself, write something on the board before class and go to the back of the room to see if you can read it. Sit in one of the last rows and take a critical look.
- Remember that unless the floor of the classroom is sloped, students in the middle of the room won't be able to see the bottom of the board. Some TAs like to mark off the "bottom line of visibility" on the board. Also, if there is a desk at the front of the class, keep it clear of objects that may obstruct vision.

While you are writing, try to keep your work visible for as long as possible. If you are right-handed, fill the right-hand panel first, then move to the panel on the left and continue your writing. In this

way, you will not be blocking the view of students copying the writing you have just completed.

- Your board work must be organized, so that students will be able to interpret their notes later
- .Erase the board completely before you begin writing anything on it. This step is especially important in mathematics, where stray lines may be interpreted as symbols.
- If you are solving a problem or proving a theorem, write a complete statement of the problem or theorem on the board, or write a precise reference.
- Fill one panel of the board in at a time, always starting at the top and moving down.
- Make your notation consistent with that in the textbook or the instructor's lecture, so that students do not have to translate from one system into another.
- Underline or in some other way mark the most important parts of your presentation: the major assumptions, conclusions or intermediate steps that you plan to refer to later on. Using colored chalk or markers of different colors may help to clarify drawings.
- Erase only when you have run out of space to write. If you begin erasing what you have written or drawn before some students have finished writing it down or reproducing a key drawing, expect to hear cries of, "No! Don't erase that yet!" A physics TA who reaches a crucial point in the derivation of an equation and then quickly erases and replaces terms will confuse students. A biology TA who draws a diagram and then rapidly changes first one part of the diagram and then another to show a process may be working too quickly for students to keep up with the changes.

To modify a drawing, use dotted lines or some other technique to show the changes. Remember that students cannot make the same erasures that you do without losing their written record of the intermediate steps; you can alter parts of a drawing much faster than they can reproduce the whole thing.

- If you find that you have made a mistake in what you have written or drawn, stop. Don't go back over the last three panels, madly erasing; first,

explain the error, then go back and make corrections, if possible, with a different color of chalk or marker.

- If you are presenting material that you want students to duplicate in their notes, you need to give them time to copy what you have written. They should not be asked to analyze while they are writing. When you want them to make or discuss a point, stop writing. Let people catch up to you (they may be lagging behind by two or three lines). Then begin your discussion. Similarly, if you have engaged in a long discussion without writing very much on the board, allow students time to summarize the discussion in their notes before you begin to use the board or to speak.
- Avoid using the board as a large "doodling pad." Students assume that what you write on the board is important and that they should probably take notes on it. The board should serve to highlight and clarify your discussion or lecture. Used wisely, the board will enhance and underscore your presentation, not diminish it.
- Ask your students if you are using the board effectively. At some point, ask your students if they can read or make sense of what you have written. You shouldn't need to do this every five minutes, but an occasional check is a good idea.
- After class, without telling the students ahead of time, ask one of your good and one of your average students to lend you their notes. If the notes of either student seem incomplete or incoherent, ask yourself what you could have done to make your presentation more clear.
- View a videotape of your presentation, putting yourself in the place of a student taking notes.

Lecturing

When to Lecture

(Adapted with permission from Farris, 1985)

Lecturing may still be the most common form of teaching in most university classrooms, but some topics lend themselves much more naturally to this technique than others. Originally, the "lecturer" read to an audience because access to written material was limited; now, the printing process has dramatically changed the lecturer's function. The present-day lecture should not simply transmit information; books are more efficient at this. Use

lecture(s) if you want to provide structure and organization to scattered material, help pace student learning, or reinforce assigned reading by providing an alternative perspective or source of information.

Planning a Lecture

When you plan a lecture, first consider your audience. Undergraduate students represent a broad cross-section of backgrounds and skills, and may arrive at college with varying levels of ability. You don't want to talk at a level at which they can't understand you, but you don't want to talk to them as if they were children, either. You will be more effective if you try as much as possible to draw on knowledge they already have, or appeal to experience they may have that fits the topic.

Before preparing the lecture, ask yourself:

- How does the lecture fit into the course as a whole?
- What are my objectives? Do I want to provide students with an overview of the subject, give them some background information or provoke them into thinking about it more?

Once you've decided that the nature of your topic is indeed suitable for a lecture and considered both your objectives and the knowledge level of your audience, you still want to make sure that what you need to cover will fit within the time you have. A typical TA lament is "There is so much material and too little time." However, good organization will enable you to eliminate irrelevant material so that you may cover important points more thoroughly.

Generating an Outline

Once you have determined your subject, formulate one general question that covers the heart of it — one you could answer in a single lecture. Take time to write it down and study it. Then, think of three or four key points you could develop to answer this question. Write these down under the question. You are now looking at your lecture outline.

Filling in the Outline

Your next task is to define the elements of your key points and come up with effective examples or analogies for each. Examples you think of "on the spur of the moment" in class tend to be trivial, but if you prepare in advance, your examples can both illustrate a

particular point and broaden students' understanding of the subject. Think your examples through carefully, and consider ways to illustrate them with board diagrams, slides, overhead transparencies, demonstrations or case studies — any of which may increase students' understanding and interest.

Reviewing the Material

(Adapted with permission from the University of Nevada at Reno)

Demonstrating that you know more than your students is easy; teaching is more difficult. Many new TAs assume that they can teach introductory math because they completed one course in statistics and two in quantitative analysis. However, an in-depth understanding of the subject is often necessary for dealing with the bright, inquisitive student who asks a relevant question that is not covered in the text: "Why didn't you use that same formula to solve the last problem?"

Under the best circumstances, you will be assigned to a course in the area of your particular expertise, but you should still review material to refresh your memory, and you should try explaining it to someone else as a way of anticipating students' questions and problems.

Delivering the Lecture

Before you begin, consider the style and clarity of your lecture presentation. Here are some suggestions to ensure that your lecture is clear and well received (adapted with permission from Cashin, 1985):

- Speak clearly and loud enough to be heard. This may seem obvious, but everyone forgets to do it sometimes. It's a good idea to suggest that students signal you if they cannot hear you — for example, by cupping a hand behind an ear.
- Avoid distracting mannerisms — verbal "tics" such as saying "ah," "uh" or "you know" repeatedly, straightening your notes or necktie, fingering a necklace or brushing back your hair.
- Provide an introduction. Begin with a concise statement, something that will preview the lecture. Give the listeners a set or frame of reference for the rest of your presentation. Refer to previous lectures. Attract and focus their attention.
- Present an outline. Write it on the board, or use an overhead transparency or a handout. Then be sure that you

refer to it as you move from point to point in your lecture.

- Emphasize principles and generalization. Research suggests that these are what people really remember — and they are probably what you really want to teach.
- Repeat your points in two or three different ways. Your listeners may not have heard it the first time, or understood it, or may not have had time to write it down. Include examples or concrete ideas. These help both understanding and remembering. Use short sentences.
- Stress important points. This can be done with your tone of voice. You can also just say “Write this down,” “This is important” or “This will be on the test.”
- Pause. Give your listeners time to think and to write.

Ways to Begin

Even after you prepare an interesting, detailed lecture, it’s still sometimes difficult to decide upon a way to begin delivering it once you are in the classroom. Here is a list of possible techniques for beginning a lecture, many of which rely on some kind of “hook” to capture students’ attention from the start (adapted with permission from Bailey, 1986).

- State a question that will be answered (or that students will at least better understand) by the end of the lecture.
- Pose a problem. The difference between this and stating a question is that a question is typically a single sentence, while a problem may require a paragraph or two.
- Give an example of the phenomenon to be discussed.
- Tell a personal anecdote, or one about a friend or famous colleague.
- Create a demonstration that illustrates the topic or puzzles the students.
- Provide a review of some previously covered material when directly related to and essential for understanding the current lecture.
- Provide an overview of the lecture.
- State the objectives you plan to accomplish with the lecture.
- Tell a funny story or joke, if relevant to the material.
- Give the lecture a title.

Questioning in the Classroom

(Adapted with permission from Hyman, 1980)

By learning to handle questions effectively in the classroom, instructors accomplish a number of interrelated goals. First, when teachers engage students in dialog, the usual “one-way” flow of information from instructor to students becomes more interactive. Second, encouraging students to ask questions helps them become more active participants in their own learning. Finally, skillful questioning by the teacher encourages students to analyze, synthesize and evaluate information, helping to develop their critical thinking skills. (For additional suggestions, see the section “Conducting Discussions.”)

Managing Students’ Questions

Strange as it may seem, many college teachers are ill at ease when students ask questions — possibly because they fear a student may ask a question to which they do not know the answer. Providing an answer, however, is only one way to respond to a question. The skill of fielding student questions is vital for a teacher who wants students to think about the topic of study. Questions are one sign that students are thinking about what you’ve said.

If there are only a few student questions, or none, it may mean that students are not paying attention to the teacher’s remarks and not thinking about the topic at hand. Or it may mean that students are afraid to ask questions because they think the instructor will ridicule them or make them feel foolish for not understanding. Sometimes, students don’t ask questions because they believe the teacher doesn’t really want them to ask questions. Although few teachers actually say, “Don’t ask me any questions,” they may say, “Hold your questions for a few minutes,” and students may conclude that they are better off not asking questions at all. Or, if a teacher responds to questions in a negative way — for example, by saying, “We discussed that issue yesterday” or “That question is really not on target” — this may discourage the student. Sometimes an instructor will answer a student’s question and then say something such as “Where were we before we got sidetracked?” The student is then left feeling that the teacher didn’t think his or her question was relevant to the discussion. After receiving one of these negative reactions, a student may think, “I’ll never ask another question in this class.”

It may seem difficult to understand why teachers discourage student questions in this way. Some teachers, however, feel the need to be in

control of both the content and the procedures of their classrooms at all times. They feel they need to “cover” the established course content, and that there is never enough time to do this well — so they discourage student questions, because questions may lead them away from “covering the material.” Teachers also may feel embarrassed by questions when they don’t have a quick answer; they feel they should know more than their students. They fear that they may lose control or “lose face” if students ask questions they can’t answer.

It is normal to have these anxieties. However, it is also true that student questions don’t throw discussions “off track” or leave teachers feeling embarrassed most of the time. The teacher must weigh the advantages gained by encouraging questions against his or her need to maintain tight control.

Questioning Students

The following suggestions may help you to improve the way you ask students questions in class (adapted with permission from Hyman, 1980):

- After asking a question, wait for a response. Do not answer the question yourself; repeat it, rephrase it, modify it, call on another student to answer it, or replace it with another question until you have waited at least three to five seconds. Students need time to think about the question and prepare their responses. The research indicates that with a wait time of three to five seconds, students respond more, use complex thought processes and begin to ask more questions. (However, you should be careful. Sometimes when teachers reword questions because they believe the initial question was unclear, they only confuse students more. Students may not know which question to try to answer.) When you ask a question and wait, you express both your expectation to receive a response and your willingness to listen to it. Be patient.
 - Ask only one question at a time; don’t ask a string of questions one after the other. For example, ask, “Compare the skeleton of an ape with that of a human.” Do not ask, “How are apes and humans alike? Are they alike in bone structure and/or family structure and/or places where they live?” A series of questions tends to confuse students.
- They are not able to determine just what the teacher is requesting from them. Napell (1978) states that videotape replays reveal an interesting pattern when the teacher asks a series of questions: “Hands will go up in response to the first question, and a few will go down during the second, and those hands remaining up will gradually get lower and lower as the instructor finally concludes with a question very different from the one for which the hands were initially raised.”
- When you want students to ask questions, request them to do so, wait, and then acknowledge their contributions. For example, you may wish to solicit questions about some Shakespeare plays the class has studied. You could say, “Are there any questions or clarifications of points we have raised?” or “Please ask questions about the main characters or the minor characters — whichever you wish at this point,” or “Does anyone have any questions for Sally about her allusion to Lady Macbeth?” (encouraging students to ask each other questions).
 - Indicate to students that asking questions is not a sign of stupidity; it is proof that people are thinking about the topic. Be very careful not to convey subtly, or even jokingly, the message that a student is stupid for asking for a clarification or restatement of an idea already raised in class or in the text. Point out that if one student doesn’t understand something, it’s possible that others don’t, either — and the one who speaks up with questions is helping all of them learn.
 - Use a variety of probing and explaining questions. Ask questions that require different approaches to the topic, such as casual, teleological, functional or chronological explanations. Avoid beginning your question with the words “Why” or “Explain.” Instead, phrase your questions with words that give stronger clues about the type of explanation you’re looking for. For example, to receive a chronological explanation, instead of asking “Why did we have a depression in the 1930s?,” try, “What series of events led up to the stock market crash of 1929 and the high unemployment in the 1930s?”

- You may also use different kinds of questions to stimulate different cognitive processes. For example, suppose that a student in a sociology class has stated that a woman's most important role in society is to be a mother. You could probe that statement by asking, "Why do you say that?" However, it might be more stimulating to ask the student, or the class as a whole, "If you were Betty Friedan, Gloria Steinem or Simone de Beauvoir, how would you react to that statement?" or, "What are the positive and negative consequences that arise within a family when a woman devotes herself chiefly to being a mother?" or, "What actions would you expect the government to take if and when it incorporates your idea into its social and economic policy?"

Rewarding Student Participation and Providing Feedback

In responding to student questions, following these guidelines reinforces good students' responses and encourages further discussion (adapted with permission from Hyman, 1980):

Praise the student in a strong, positive way for a correct or positive response. Use such terms as "Excellent answer," "Absolutely correct" and "Bull's-eye." These terms are quite different from the common mild phrases teachers often use, such as "OK," "Uh-huh" and "All right." Especially when the response is long, try to find at least some part that deserves praise and comment on it.

- Make comments that apply to the specific student response. For example, if a student has offered an excellent response to the question, "What function did the invasion of the Falklands serve for Argentina?" you might say, "That was excellent, Pat. You included national political reasons, as well as mentioning the Argentine drive to become the South American leader." This response tells the student strongly that he or she has been successful in understanding the topic. It also demonstrates that you have listened carefully to the student's ideas.
- Build on the student's response. If you continue to discuss a point after a student response, try to incorporate the key elements of the response into the discussion. By using the student's response, you show that you value the

points made. By referring to the student by name ("As Pat pointed out, the Falklands' national political status . . ."), you give credit where credit is due.

- Avoid the "Yes, but . . ." reaction. Teachers use "Yes, but . . ." or its equivalent when a response is wrong, or at least partly wrong. However, although their intent is probably positive, the overall impact of these phrases is negative and deceptive. When students hear "Yes, but . . .," they feel they have been told that the response is correct or appropriate with one breath and incorrect with the next. They will tend to forget any praise you gave them before the word "but."

Here are some alternatives:

- Wait to a count of five, with the expectation that another student will volunteer a correct or better response.
- Ask, "How did you arrive at that response?" (Be careful, though, not to ask this question only when you receive inadequate responses. Ask it also at times when you receive a perfectly good response. Otherwise, students may conclude that the only time you will ask them to explain their line of thinking is when they are wrong.)
- Say, "You're right regarding X, and that's great; wrong regarding Y. Now we need to correct Y, so we can get everything correct."
- Say, "Thanks. Is there someone who wants to respond to the question, or comment on the response we've already heard?"

These alternatives are obviously not enough to fit all cases. It can be difficult to handle wrong or partially wrong responses, because students are sensitive to teacher criticism. However, with these alternatives as examples, you will probably be able to think of others as needed.

Teaching Outside the Field of Specialization (Adapted with permission from the University of Nevada at Reno)

If you are assigned to teach outside of your specialty, you'll have to work to stay at least a week ahead of your brightest students. Remember that you are not responsible for knowing all the answers, so

don't feel compelled to apologize for your "lack of knowledge." If you cannot answer a question or you have made an error, admit it, but tell your students where they may find that answer, offer to look it up, and then do it (this is good advice for teaching within your own field as well). University students are usually forgiving, but the one thing they will not tolerate is an instructor who lies about or tries to hide what he or she doesn't know.

Conducting Discussions

(See also the section on "Questioning in the Classroom" under "Lecturing")

Preparing for Discussions

Discussion sections differ from lectures in many ways. A major difference is that students can be more active and that there can be more personal contact. Good discussion sections give students an opportunity to formulate principles in their own words and to suggest applications of these principles; they help students become aware of and define problems implied in readings or lectures; they can also increase students' sensitivity to other points of view and alternative explanations (adapted with permission from Unruh, 1986).

Some TAs wonder how there can possibly be enough to say to fill the class period. This will be the least of your worries. Your job is facilitating and moderating the discussion, not doing all the discussing. New TAs sometimes tend to over-manage the situation. Remember that the discussion isn't just a matter of communication with your students; it's a chance for your students to share ideas and combine resources. Many TAs overlook this potential and end up trying to carry the whole conversation themselves (adapted with permission from Ronkowski, 1986).

Some instructors assume that they can "just walk in" to the classroom and begin useful discussion. It is as if they feel that, with a basic understanding of the subject, they can rely upon their students to carry the discussion for 40 or 50 minutes. However, a good discussion takes a great deal of prior planning and review of the subject matter.

To begin with, instructors need to review the content itself and bring it up to date; that is why keeping up in your field is so important. Inevitably, in a discussion, a student will ask a question about how the discussion relates to or applies to the present, or to current trends. You can be of great help if you can relate what is being discussed to the most recent events or developments in the field.

It is also helpful to be knowledgeable about the backgrounds and interests of your students. This is why student information and background sheets and get-acquainted sessions at the beginning of the term are useful. For example, if you know that the mother of one of your students works as an

accountant in local industry, you may be able to make a lesson on accounting procedures more meaningful for that student by drawing upon the student's knowledge of the parent's activities.

Prior planning also enables you to anticipate the kinds of questions that will emerge during the discussion. In this way, you may provide more appropriate and helpful sorts of answers to those questions. You may also consider how the questions might be referred to other students, helping them to reinforce their understanding as well. (Adapted with permission from the Freshman Advising Training Manual, Northeastern University).

Before the section meets, decide what kind of discussion is most useful for your class. Is there a certain topic to be discussed (perhaps arranged previously by the supervising instructor)? Does the group have to reach a conclusion or come to an agreement? Is there subject matter students must learn? Is the section a forum for expressing and comparing views? Is it important that students carefully analyze the topic, or that they learn certain skills? Once you have decided what kind of discussion you want, tell the students. It is easier for everyone if the goals for the class have been clearly stated. (Adapted with permission from Unruh, 1986)

Implementing Discussions

(Adapted with permission from Ronkowski, 1986; previously adapted from McKeachie, 1978, pp. 35-68)

Before you can successfully implement a discussion section, you need to become aware of the attitudes and messages you bring into the classroom with you. Your reactions, your responses to students, the attitudes you project in your actions — all these suggest to your students the sort of interaction they can expect. The way in which you respond to students' comments will give the most important clue. No one wants to feel that his or her remark will be ridiculed or not addressed. Students are also sensitive to what they think you really want. (They may ask themselves, "Does the teacher really want a discussion, or does he just want to hear himself talk?" or "Does the teacher say she wants disagreement, but then get defensive whenever someone challenges her?") Your students will try to read you so that they can respond appropriately. Be sensitive to the clues you give them.

You may use a number of techniques in opening up discussion. The most obvious is to draw upon students' questions and comments and enlarge upon them with your own remarks.

What do you do if the subject matter is new, and your students are, too? You may want to write several statements or questions beforehand and use these as a springboard.

When you start a discussion with a question, ask open-ended questions that will get students thinking about relationships, applications, consequences and contingencies, rather than merely the basic facts. You've probably often heard a professor spiel off a list of questions that require only brief factual replies and little student involvement:

Teacher: "When was the Battle of Hastings?"

Student: "1066."

The result could hardly be called a discussion. You'll want to ask your students the sorts of questions that will draw them out and actively involve them, and you will also want to encourage your students to ask questions of one another. Above all, you must convey to your students that their ideas are valued as well as welcomed.

Some ways of initiating discussions:

- Have students write about a question or idea for a few minutes (this method also increases the likelihood that everyone will have something to contribute).
- Assign questions or tasks for small groups to work out amongst themselves (this tends to help students overcome any inhibitions they may feel about speaking up in front of the class).
- Ask for reactions to specific portions of assigned readings or lectures (questions may be given as part of the previous class's homework assignment or introduced at the beginning of a lecture).

The more students are prepared to discuss a particular topic, the better they will be able to participate in a discussion about it.

Some behaviors to avoid when asking questions are:

- Phrasing a question so that the implicit message is, "I know something you don't, and you'll look stupid if you don't guess right!" Don't ask questions you know are beyond the students' current levels of learning, and then expect them to either guess the correct answer or be ridiculed because they failed. This discourages them from being willing to expand on their current knowledge or express a theory.
- Phrasing a question at a level of abstraction inappropriate for the class. Don't just show off how many "big words" you know. Discussion questions need to be phrased as problems that are meaningful to student and instructor alike.

- Not waiting long enough to give students a chance to think. The issue of "wait time" is an often ignored component of questioning techniques. If you are too eager to impart your views, students will get the message that you're not really interested in their opinions. Most teachers tend not to wait long enough between questions or before answering their own questions, because a silent classroom makes them anxious. Try counting to 10 slowly after asking a provocative question to which you are very tempted to respond yourself. Students don't like a silent classroom, either. Once they have confidence that you will give them time to think their responses through, they will participate more freely.

Moderating Discussions

Your goal should be to "moderate" discussions, not to "control" them. What you are really doing is relinquishing control over the learning process to your students.

Running a section skillfully requires creating a context of "organized spontaneity" in which "the good section leader gives the students opportunities and incentives to express themselves and develop skills within the otherwise somewhat passive context of the lecture course" (Seegerstråle, 1982). One of the keys to facilitating a discussion is to guide its course without appearing to do so.

Here are some common difficulties TAs encounter in leading discussions, and some suggestions for overcoming them (McKeachie, 1978):

- If you have trouble getting discussions started, you need to pay more attention to the topics you're choosing; they may not be broad enough. Or you may not be using good questioning skills. Students may feel "on the spot" or embarrassed and afraid of saying the "wrong" thing. (See the previous sections on questioning techniques.)
- If one or two students consistently dominate discussion, the end result is a great deal of tension for the other students. You don't want to reject the dominating student, but you also don't want to alienate the rest of the class. You could use the comments of a dominating student to throw the discussion back to the class ("You've raised an important point. Maybe others

- would like to comment”), or acknowledge the comments and offer another outlet (“Those ideas deserve a lot more time. Maybe we can discuss them after class”).
- If there is a lull in the discussion, relax. This doesn’t mean you’ve failed. Every conversation needs a chance to “catch its breath.” It may mean that your topic is exhausted, or it may be a pause for people to digest what they’ve heard. If the lull comes too frequently, though, you may need to give more attention to the types of topics you’re picking. You may also be inadvertently shutting down discussion by dominating rather than facilitating.
 - If students are talking only to you instead of to each other, you’re probably focusing too intently on the speaker. You can help students talk to each other by leading with your eyes, looking occasionally at others in the room. This will lead the speaker to do likewise.
 - If there are students who seldom or never talk, see if you can find out whether they are shy, confused, or have a reason for not wanting to talk. Watch for clues that indicate that they may want to speak up (“Alan, you seem disturbed by Dan’s idea. What do you think?”). However, be careful that you don’t embarrass a student into participating. You may want to make a point of talking to such a student before or after class to indicate your interest.
 - If you run out of materials before the end of class, ask your students if there are other topics they are interested in discussing. If not, let them go early. Don’t keep them the whole hour just because you feel you must.
 - If an argument breaks out between students over an issue, you’ve got a hot topic on your hands! Facilitate! Your major task here is to keep the argument focused on the issues. Don’t let it turn personal under any circumstances.

TAs are also often concerned about how to encourage students to attend discussion sections. Despite the fact that section participation is a requirement for many introductory courses, students may believe that their attendance is not mandatory, since the TA rather than the faculty member is in charge. You may want to devise a way to structure required assignments, projects or presentations into

your sections so that section participation will be part of the final course grade.

If students know that the TA has some responsibility for determining their grades, the TA will have considerably more authority in the classroom or in any interactions with students. Students will also be more likely to attend section or lectures led by the TA.

Leading Discussion of a Case Analysis

In several academic disciplines, the use of case analyses is common practice in the classroom. Business, law, political science and other studies often involve the assignment of a “case study.” This case depicts a series of “real-world” events and facts, usually from the perspective of an organization, that must be analyzed by students. Should you be involved in leading case analyses as a teaching assistant, it’s appropriate to discuss case-study discussion methods with a faculty member experienced in leading such discussions.

Leading this discussion requires the full involvement of the students. The discussion leader does not lecture, recount facts or draw conclusions, but rather uses techniques to draw out the analysis, conclusions and recommendations from students. Encouraging students to discuss or debate case issues among themselves, and leading them by suggestion or inquiry, are commonly used techniques as well. Writing key facts or information on the board as the students discuss the case also aids in directing the discussion. The more prepared you are as the discussion leader, the more adept you can be at focusing the discussion, bringing in key issues and relating these to course objectives.

A useful publication for review prior to assisting in case discussion is Christensen, C. R., *Teaching and the Case Method* (Harvard Business School, Publishing Division, 1987).

Laboratory Sections

Preparing Laboratory Sections

(Adapted with permission from Ronkowski, 1986)

The most important thing you can do to ensure that your laboratory sections run smoothly is to be well prepared. Your preparation, prior to the start of the semester, should include being acquainted with the storeroom of the laboratory so that time won’t be lost during a laboratory looking for necessary equipment or materials — and, if applicable, knowing the location of the first-aid kit, basic first-aid rules and procedures for receiving emergency assistance.

Basic weekly planning for your laboratory section may include the following:

- Know exactly what the students are supposed to learn and why they have to

learn it. This may come in handy when your students start to wonder why they're doing what they're doing.

- Perform the entire experiment in advance. There is no guarantee it's going to work as advertised in the laboratory manual. By going through the laboratory yourself, you'll be familiar with some of the problems your students may confront, and you'll know the subtler points of the process you are demonstrating.
- Read and study the theory on which the experiment(s) are based. Your understanding of the theoretical aspect of the laboratory should be useful to you in handling most student questions that don't deal with concrete parts of the experiment(s).
- Research the relevance of the experiment — both the technique being taught and the applications of the theory being demonstrated.
- Decide how to introduce the laboratory most effectively. Before students get under way with the day's laboratory, will they need you to demonstrate the procedures they'll be following? Do they need a handout with written instructions? Do you want two students in the class to demonstrate the experiment to the rest of the class? Will a 15-minute lecture about the theory and intent of the laboratory be enough? Your initial introduction to the laboratory or the day's first activity can set the tone and motivation for the rest of the laboratory.

Implementing Laboratory Sections

(Adapted with permission from Farris, 1985)

Laboratories are offered in conjunction with large lecture courses so that students may acquire technical skills and apply concepts and theories presented in lectures. This hands-on experience encourages them to develop a spirit of inquiry and allows them to live for a semester as practicing botanists, geologists, etc. It may sound trite, but you really do have an opportunity to help students develop some appreciation of the mysterious scientific method.

You needn't overwhelm them with Thomas Kuhn's theory of scientific revolutions on the first day of class, of course. In fact, to realize your full potential as a laboratory instructor, you'll have to recover some of the neophyte's enthusiasm for

mastering fundamental principles and techniques of the discipline. Think of yourself as wearing bifocals, so that you can examine a problem from the professional's and student's points of view at the same time.

Safety Procedures

Safety takes on a special importance when you are directly responsible for the health and well-being of 25 or 30 laboratory students. Window-shattering explosions are rare, but it is common for students to break beakers of acid, cut themselves while inserting glass tubes into rubber stoppers or ignite a stack of laboratory notes with a Bunsen burner.

If your department's orientation does not cover safety procedures, the professor or laboratory coordinator in charge of the course will probably take responsibility for describing departmental policies. During the first few weeks of the semester, you should demonstrate to students the proper technique of decanting and mixing liquids, handling glassware, organizing a work area, and using burners and other equipment — all of the precautionary measures you now perform almost without thinking about them. Your students don't have your experience, and they will appreciate your concern and advice.

Student Preparation

Students who have only a hazy recollection of the previous lecture will follow directions mindlessly, but those who have reviewed lecture notes and the laboratory manual will have some understanding of an experiment's importance. Devise some means to ensure that students are familiar with the laboratory before they come to class. Some instructors feel that assigning grades to laboratory reports is incentive enough, while others require students to submit a statement of purposes and procedures or an explanation of why and how the experiment is relevant to the course. Students who have no understanding of why the experiment is important will derive as much knowledge from conducting the experiment as they would from spending a semester in the coffee shop.

Supervising the Experiment

At the beginning of the laboratory, review the purposes and procedures of the experiment. You may want to deliver a brief but inspiring lecture on how the experiment relates to current developments in the discipline, or you may discuss the students' statements of objectives. Ask for questions, clarify any ambiguities in the laboratory manual and demonstrate special procedures now, rather than interrupting the experiment later.

If both you and your students are well prepared, you'll be free to perform your most important role: guiding the students' development.

Try to talk with each student at least once during the experiment. Technical and procedural matters may then be handled quickly with a few words of advice or a very brief demonstration. Your primary role, however, is to help students master the steps of the scientific method — recognizing and stating a problem, formulating hypotheses, collecting data, testing hypotheses and drawing conclusions.

Helping students master each step is not an easy task. You can tell students to “hold the stopper between your index and middle fingers while you’re pouring.” Perhaps a scaled-down version of the discussion techniques described above tailored to the student and the experiment will work. Or, perhaps you’ll take the opposite approach, and make yourself available to ask rather than answer questions.

However you approach this part of your task, refrain from giving outright answers or advice. If laboratory partners ask, “Why can’t we get this to come out right?,” try asking them a series of questions that leads them to discover the reasons for themselves, rather than simply explaining why the experiment failed. Of course, sometimes the reason will be relatively simple (“You used hydrochloric acid instead of nitric acid”), but just as often, the reason will be more substantial — a matter of timing, sequence, proportion or interpretation. Perhaps the student had the necessary data but has overlooked an important step in analyzing the results, or is unable to synthesize a solution.

It’s very tempting to help students by saying, “Aha! I see where you went wrong” — but unless you resist the temptation, they are likely to falter at the same stage in the next experiment. Students may become frustrated if they can’t get a straight answer out of you, but they will also learn more from experiencing that “Aha!” moment for themselves.

Evaluation of Student Performance

(Adapted with permission from Farris, 1987)

Most TAs have some responsibility for grading student performance (weekly quizzes or essays, midterm or final examinations, laboratory reports or term papers), and those with considerable autonomy often assign final semester grades as well. It’s important, then, that you develop a sense of academic standards as quickly as possible, explain them clearly at the beginning of the course and apply them consistently throughout the semester. However, as you know from your experience as a student, grading practices vary considerably from one instructor to the next.

It will probably take a semester for you to strike a comfortable balance between the “I’m tough — learn because you respect me” and the “I’m compassionate — learn because you love me” extremes of motivating students. Regardless of the

But telling them to “thing better” or “remember what the professor said about that yesterday” will not be very effective. There are a variety of ways to help students solve problems for themselves

approach you take, students won’t respect you or your standards unless you also provide them with a means of meeting your expectations.

Determining Evaluative Criteria

(Adapted with permission from Farris, 1985)

Students are very sensitive to grades and the criteria on which they are based: “Will this be on the test? How much does the quiz count toward the final grade? Do you consider attendance and participation when grading?” Grading is a thankless job, but somebody has to do it, and you may as well be prepared to answer such questions on the first day of class. That means, of course, that you must have answered them for yourself well in advance.

Before constructing an examination or assignment, you need to decide exactly what it is you expect your students to demonstrate that they have learned. Reviewing the instructional objectives you established at the beginning of the term may be a good way to begin. The first step is to think carefully about the goals you (or the instructor teaching the course) have set for the students. Should students have mastered basic terminology and working principles? Should they have developed a broad understanding of the subject? Should they be able to use the principles and concepts taught in the course to solve problems in the field? The next question is how you may best evaluate the extent to which the students have achieved these goals. Perhaps a certain type of test will suggest itself immediately (multiple-choice, matching, fill-in-the-blank, short-answer, problem-solving, essay). If you know what you want to assess and why, writing the actual questions will be much less frustrating.

Test Construction

Objective Tests

Although by definition no test can be truly “objective” (existing as an object of fact, independent of the mind), an objective test in this handbook refers to a test made up of multiple-choice, matching, fill-in, true/false or short-answer items. Objective tests have the advantages of allowing an instructor to assess a large and potentially representative sample of course material and of allowing for reliable and efficient test scoring. The disadvantages of objective

tests include a tendency to emphasize only “recognition” skills; the ease with which correct answers may be guessed on many item types; and the inability to measure students’ organization and synthesis of material (adapted with permission from Yonge, 1977).

Since the practical arguments for giving objective examinations are compelling, it may be tempting to write a multiple-choice test. You should avoid them if you can, because of the disadvantages. However, if giving a multiple-choice test is unavoidable, there are numerous ways of writing objective test items:

- Many textbooks are accompanied by teachers’ manuals containing collections of items, and your professor or former teachers of the same course may be willing to share items with you. In either case, however, the general rule is to adapt rather than adopt. Existing items will rarely fit your specific needs, so you should tailor them to reflect your objectives.
- Design multiple-choice items so that students who know the subject or material adequately are more likely to choose the correct alternative, and students with less adequate knowledge are more likely to choose a wrong alternative. That sounds simple enough, but you want to avoid writing items that lead students to choose the right answer for the wrong reason. For instance, avoid making the correct alternative the longest or most qualified one, or the only one that is grammatically appropriate to the stem. Even a careless shift in tense or verb-subject agreement may suggest the correct answer.
- Finally, it is very easy to disregard the above advice and slip into writing items that require only rote recall, but are still difficult because they are taken from obscure passages (footnotes, for instance). Some items requiring only recall may be appropriate, but try to design most of the items to tap the students’ understanding of the subject (adapted with permission from Farris, 1985).

Here are a few additional guidelines to keep in mind when writing multiple-choice tests (adapted with permission from Yonge, 1977):

- The item-stem (the lead-in to the choices) should clearly formulate a problem.

- As much of the question as possible should be included in the stem.
- Randomize occurrence of the correct response (you don’t always want “C” to be the right answer).
- Make sure there is only one clearly correct answer (unless you are instructing students to select more than one).
- Make the wording in all the response choices consistent with the item stem.
- Don’t load the stem down with irrelevant material.
- Beware of using answers such as “none of these” or “all of the above.”
- Use negatives or double negatives sparingly in the question or stem.
- Beware of using sets of opposite answers unless more than one pair is presented (such as “go to work,” “not go to work”).

Essay Tests

Conventional wisdom accurately portrays short-answer and essay examinations as the easiest to write and the most difficult to grade, particularly if they are graded well. However, essay items are also considered the most effective means of assessing students’ mastery of a subject. If it is crucial that students understand a particular concept, you may force them to respond to a single question, but you may also consider asking them to write on one or two of several options. TAs generally expect a great deal from students, but remember that their mastery of a subject depends as much on prior preparation and experience as it does on diligence and intelligence; even at the end of the semester, some students may still be struggling to understand the material. Design your questions so that all students can answer at their own levels (adapted with permission from Farris, 1985).

Some suggestions for enhancing the quality of your essay tests (adapted with permission from Ronkowski, 1986):

- Have in mind the processes that you want measured (for example, analysis, synthesis).
- Start questions with words such as “Compare,” “Contrast” and “Explain why.” Don’t use “What,” “Who,” “When” or “List.” (These latter types are better measured with objective-type items).
- Write items so as to define the parameters of expected answers as clearly as possible.

- Don't have too many answers for the time available.

Written Assignments

Writing is a tool for communication, and it is reasonable for you to expect coherent, lucid prose from your students. However, writing is also a mode of learning and a way for students to discover what they think about a subject, and you should be willing to participate in this learning and discovery process as well as grade the product (adapted with permission from Farris, 1985).

Writing anxiety — fear of writing — is the concern of many TAs who have seen their students “freeze” on an essay examination or agonize about writing a paper they have thoroughly researched.

Pat Caldwell, a professor of English at New Mexico State University, makes the following observations, based on the research of Dr. Morris Holland, assistant vice chancellor of student development at the University of California at Los Angeles (adapted with permission from Unruh, 1986):

“In the writing anxiety cycle, the anxious student has experienced previous unpleasant, stressful and (in terms of grades) unrewarding writing experiences. Remembering these experiences, he practices ‘writing avoidance’ — he avoids any extracurricular writing, avoids writing classes, delays taking any required composition courses and chooses a major where he perceives little need for writing. However, when he finds himself in a position where writing is unavoidable, he faces ‘cognitive disruption’ — his sweaty palms, erratic breathing and muscular tension break his concentration and his confidence is shaken by memories of previous writing disasters or his uncertainty about what is expected of him. Since both ‘avoidance’ and ‘disruption’ are likely to affect the student’s performance, each writing situation becomes a negative experience, which in turn enforces the writer’s anxieties.”

In this self-perpetuating cycle, the TA’s intervention is crucial. He or she can, either in individual conferences or in group paper-writing or examination-taking strategy sessions, counteract the students’ tension by explaining how they can relax in the writing act. The TA may combat the students’ cognitive disruptions by urging them to control negative thoughts about their writing and by initiating positive writing experiences. In short, the TA can help to create a good environment for student writers — an environment they can learn to recreate for themselves.

One way the TA may give the students a positive writing experience is with some free-writing exercises — that is, non-evaluated writing. The TA may also make a special effort to clarify paper topics

and expectations on examination responses, so that students have a clear idea of what is being expected of them and the basis on which they will be evaluated (adapted with permission from Unruh, 1986).

Responding to Student Writing

More and more, instructors are involving themselves in students’ writing (and learning) processes rather than simply “correcting” the final product by having them submit first drafts, which are given constructive criticism on content, organization and presentation. One-to-one conferences after the student has read the critique and perhaps begun a second draft are invaluable. The second draft is graded and usually demonstrates improvement on all fronts, especially in the depth of analysis and support for an argument so often found lacking in one-draft student papers.

Also gaining in popularity with both students and instructors are peer feedback groups in which students read each other their first drafts for critique. These groups work best when a protocol is observed: Generally, each student reads the draft twice. During the first reading, group members listen only; on the second reading, they write comments on their photocopy and/or fill out a form designed to address problems specific to the assignment. Then, one at a time, group members offer their comments and suggestions to the writer. One advantage to the peer feedback method is that you, the instructor, are not the only audience for the students’ writing. They hear suggestions for improving their drafts from others prior to your reading of the papers (adapted with permission from Farris, 1985).

Professor Anne Herrington of the University of Massachusetts Writing Program offers the following list of guidelines for responding to student writing:

- When you present a writing activity that is to be evaluated, make your evaluation criteria clear to students. Those criteria should focus primarily on “content”-related aspects of the writing, and secondarily on presentation.
- When possible, advise students throughout the process of the activity. For example, break larger assignments into a series of smaller ones to allow you to offer some guidance throughout the project.

When writing a response:

- Play fair. Evaluate papers with the criteria you set up; try not to allow hidden agendas to influence your judgment.
- Make your comments descriptive and helpful. Tell students what they are

doing well, what they are failing to do, and what they need to do to improve in the future.

- Limit your comments and set priorities, focusing on the most important criteria specified in the assignment: how the writer interprets and analyzes the subject, accuracy and sufficiency of information, reasonableness of line of argument, etc. Consider such matters as organization, style and grammar only secondarily.
- Try to avoid “correcting” all mistakes in grammar and usage. As an alternative, you may want to note them in only the opening paragraphs, or with a dash in the margins. Make your minimum expectations clear and maintain them. Initially, you may allow students to re-edit a paper to meet the expectations.

If a number of students are having difficulty with the same problem, devote some class time to instructing them about it, rather than trying to pack such instruction into your individual written comments.

Grading

Reading 50 papers or 200 essay examinations presents special problems, especially when all 50 or 200 are responses to the same topic or question. How do you maintain consistency? You are more likely to be thorough with the first few papers you read than with the rest, and less likely to be careful with the comments when you are tired. To avoid such problems, read five or six papers before you start grading to get an idea of the range of quality (some instructors rank-order the papers in groups before they assign grades), and stop grading when you become tired, irritable or bored. When you start again, read over the last couple of papers you graded to make sure you were fair. Some instructors select “range-finder” papers — middle-range A, B, C and D papers to which they refer for comparison.

Depending upon the number of students you have, you may have to spend anywhere from five to 20 minutes on a three- to four-page paper. Try to select only the most insightful passages for praise and only the most shallow responses or repeated errors for comment; in other words, don’t turn a neatly typed paper into a case of measles. Avoid the tendency of new TAs to edit the paper for the student. Remember, also, that if you comment on and correct everything, a student loses sense of where priorities lie. Don’t give the impression that semicolons are as important to good writing and to a grade as, say, adequate support for an argument. (adapted with permission from Farris, 1968)

In assigning grades to essay questions, you may want to use one of the following methods (adapted with permission from Cashin, 1987):

- Analytic (point-score) Method: In this method, the ideal or model answer is broken down into several specific points regarding content. A specific sub-total point value is assigned to each. When reading the examination, you need to decide how much of each maximum sub-total you judge the student’s answer to have earned. When using this method, be sure to outline the model (ideal or acceptable) answer before you begin to read the essays.
- Global (holistic) Method: In this method, the rater reads the entire essay, makes an overall judgment about how successfully the student has covered everything that was expected in the answer, and assigns the paper to a category (grade). Generally, five to nine categories are sufficient. Ideally, all the essays should be read quickly and sorted into five to nine piles, then each pile reread to check that each essay has been accurately (fairly) assigned to that pile, which will be given a specific score or letter grade.

Grading of multiple-choice examinations may be done by hand or through the use of computer answer sheets available through your department. If you choose the computer-grading route, you must be sure to provide #2 pencils with which students may mark their answer sheets. These are usually available from your department’s main office. At the time of the examination, it’s helpful to write on the board all pertinent information required on the answer sheet (course name, course number, section number, instructor’s name, etc.). Also remind students to fill in their university identification numbers completely to ensure that their answers will be properly graded by the computer.

Records and Distribution of Grades

Procedures for grading and the distribution of grades to students will most likely be negotiated with the faculty member teaching the course. Many will have established procedures for the distribution of grades, while others may leave it up to you. When posting grades in any kind of public area (outside your office or the instructor’s, for example) be sure that students’ names are not visible on the grade sheets. Grades should be recorded by ID number rather than by name. If the exams have been computer graded, the printout you receive will include a sheet with ID numbers and grades only, which is suitable for posting. Another method is to

record grades on the attendance roster, photocopy it and then clip out the section of names on the sheet, leaving only ID numbers and grades.

Handing back papers or essays to a large class can be a very time-consuming task. Some instructors deal with this by leaving time at the end of class to hand back assignments or tests, or they may ask students to come to their office to pick up papers. The latter alternative may provide an opportunity for students to receive more personal feedback from you about their papers.

The University Grading System

At the end of each semester, students are sent a grade report by the Registrar's Office, provided they have no outstanding financial delinquencies with the University. Different grading systems are used, and different grading policies are in effect, in each undergraduate school and in the graduate school; if you or your students have questions, refer to the appropriate school section of the Binghamton University Bulletin.

For the purpose of computing semester or cumulative averages, each letter grade is assigned a quality point value as follows:

A	=	4.0	C+	=
2.3				
A-	=	3.7	C	=
2.0				
B+	=	3.3	C-	=
1.7				
B	=	3.0	F	=
0				
B-	=	2.7		

For more information about grading policies in your department, consult with your faculty supervisor or under-graduate director.

EVALUATION OF INSTRUCTION

Teacher-Course Evaluation Options for TAs

Evaluation has always been an important part of teaching. The focus may be a measurement of student performance, an assessment of teaching skill, a review of materials, or an effort to enhance both teaching and learning. In each case, valid and reliable information is needed if informed decisions are to be made. Well-designed and carefully conducted evaluations may provide the information upon which these important decisions about you and your students are based.

There are several reason to evaluate your teaching performance. You may want to know how well a particular lecture was delivered; how students are feeling about a special technique you are using; whether you are providing enough or too much content; if students feel your tests are fair; how useful

the textbook and/or readings are; how much material is learned; or any of the several other questions about the teaching/learning process or its results.

Just as there are many reasons to evaluate, there are many ways to gather evaluation information. Some evaluation methods are as simple as a casual conversation in which you ask students "How are things going?," while others require special equipment or techniques (such as videotaping a classroom lecture, or gathering and analyzing student ratings using questionnaires). You can evaluate your performance by attending to the non-verbal cues of your students; reviewing student notebooks; asking for specific, written comments; having a friend, colleague, senior faculty member or teaching consultant sit in on one or more of your classes; and, of course, by assessing student performance through your tests and/or assignments. Each method has its own value, and some are particularly valuable for gathering certain kinds of information.

There are two basic kinds of evaluation: summative, which is done for purposes of making a decision or a judgment of merit; and formative, which is done for purposes of review and revision. While summative evaluation requires multiple sources of information and several applications in order to be fairly and correctly done, teaching improvement or other formative evaluation may be valid and reliable with a single source of information and one application of an instrument (for example, student ratings from one class using a validated questionnaire).

The University has developed a student rating questionnaire and norms for summative purposes. Information about this questionnaire is distributed to all departments early in each semester by the University Examination Center (AD 312; 7-2365). Any teacher of record may request copies of the Student Opinion of Teaching (SOOT) questionnaire, which is administered on a voluntary basis during the last week of classes. In addition, many departments have their own questionnaire, particularly at mid-semester, when you can still make changes. For formative purposes, early responses from students can be very helpful.

Appendices

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Reader Comments Sheet

Dear Reader:

Your comments about this handbook are important to us. We need feedback in order to reflect your interests and needs in upcoming editions. Please use this section to give us your feedback. Detach and return by campus mail. Thanks for your help!

Circle the point on the scale that best matches your response to each item below.

How relevant is the content of the handbook to your teaching duties?

5	4	3	2	1
Relevant				Irrelevant

How useful do you think this handbook will be to you?

5	4	3	2	1
Useful				Useless

How interesting did you find this handbook to read?

5	4	3	2	1
Very Interesting				Very Boring

What did you like best about this handbook?

What did you like least about this handbook?

What, if anything, would you like to see included in the next handbook that is not in this one?

What, if anything, would you change or delete in the next handbook?

Are you a teaching assistant? YES NO

(If "NO," describe teaching role.) _____

Return to: Nancy E. Stamp, Vice Provost and Dean of the Graduate School, AD 134.

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