



Center for Teaching Excellence
University of Maryland
at College Park

Teaching Folio

0405 Marie Mount Hall
301-405-9356
www.cte.umd.edu

Teaching Folio Table of Contents

- The Teaching Folio: An Introduction2
- Syllabus Construction3
- The First Class Session4
- Diversity and Positive Classroom Climate5
- Discussion6
- Lecturing8
- Cooperative Learning9
- Technology in the Classroom 10
- Assessing Student Performance 13
- Grading 15
- Self-Evaluation and Classroom Research 17
- Teaching Portfolios 19
- List of Faculty Reviewers 20

The Teaching Folio: An Introduction

Following this page, you will find a series of teaching topics, an overview of concepts, suggestions, and initial ideas on various aspects of teaching. These topics should be considered introductory notes, avenues toward more in-depth study of the scholarship available on best teaching practices and good learning outcomes. What follows are meant to be simple, easy-to-read abstracts that can serve to help you review ideas you have considered previously, introduce you to concepts and methods you may want to pursue in more depth, and stimulate you to think about teaching more broadly in relation to your own goals and personal teaching style. Most of the abstracts refer you to more extensive materials available from the Center for Teaching Excellence, and they include citations for references you may want to procure for yourself in order to gain more details on any or all of the topics--many of the texts and articles cited are available in the CTE resource library, and some are even in downloadable format on our website. So, please come by our offices located at 0405 Marie Mount Hall to browse through the many excellent texts about all matters pedagogical. Also, please visit our website at <http://www.cte.umd.edu>. and peruse the library of terrific articles available in PDF format.

The *Teaching Folio* is a combined effort of the Center for Teaching Excellence and a number of outstanding teaching faculty--from all across campus--who served as reviewers and resources for individual topics. Susan Baker-Lapp, a CTE Assistant, did much of the initial background research and editing for the Folio. The latest revisions and reformatting of the document was completed by Nora Bellows, a Graduate Assistant in charge of Faculty Programs. Of most importance was the time and effort devoted by the faculty who served as reviewers for the Folio and whose specific criticisms and comments helped to improve this collection. Their names appear at the back of this document.

Syllabus Construction

Often, a student's first introduction to a course and an instructor is the syllabus. The syllabus is a means of communicating to students what a course is about, why the course is taught, and what will be required for the student to complete a course successfully. The syllabus is also a means of connecting students and instructor. A well designed syllabus communicates to students that an instructor is interested in students' understanding of a subject matter, supports students' efforts to master content, and takes students' intellectual quests seriously.

Many times syllabi are no more than a series of lists specifying where and how instructors can be reached, course meeting time and location, offering a brief outline of topics covered in each class meeting and detailing the required preparations for each class. A good syllabus includes all of this information, but it should also include course objectives, course prerequisites, an explanation regarding why the course is structured as it is, purposes behind assignments and exams, and why specific texts have been chosen. This additional information helps students to gain a greater understanding of the course and instructor. A complete and well designed syllabus can help set the climate and tone for a positive teaching and learning environment. Acting as a contract, a syllabus clearly details both student and instructor responsibilities and instructor responsibilities.

The following is a brief checklist of areas that a complete syllabus should cover:

- **Course Information:** title, number of credits, and any prerequisites.
- **Instructor Information:** name, title, office location, office hours, phone number and TA information (if any).
- **Course Description/Objectives:** extensive description of course, general content, information about instructional methods, course objectives and goals, rationale for course structure and a description of various assignment types.
- **Course Policies:** policies regarding attendance, lateness, class participation, missed exams or assignments, lab safety, academic honesty, and grading specifications.
- **Texts and Other Reading Materials:** titles, authors, dates of publication, whether required, optional, or supplementary.
- **Additional Materials Needed:** lab materials, art supplies, calculators, software, etc.
- **Course Calendar:** schedule of topics to be covered, dates for exams, quizzes and any other means of assessment, due dates for assignments, any required special events.
- **Available Support Services:** information regarding any support services available to the student that might be useful during the course (learning assistance center programs and short courses, the writing center, library facilities, computer facilities and helpdesk at OIT, etc.)

Information compiled from the following sources:

Altman, H. and Cashin, W. (1991). "Writing a Syllabus." *Idea Paper No. 27*. Center for Faculty Evaluation and Development, Kansas State University.

Rubin, S. (1985). "Professors, Students, and the Syllabus." *Chronicle of Higher Education*, August 7.

The First Class Session

Meeting with students for the first time can cause anxiety for both instructors and students. This is not surprising, as the first class meeting can set the tone for the entire semester. “First impressions” are made during the first session; therefore, it is important that instructors be well-prepared and begin establishing a comfortable teaching and learning environment. The following is a list of tips designed to ensure that the first meeting with students is a good one.

- **Don’t cut the first class meeting short.** Avoid distributing the syllabus and then leaving students to decipher it on their own.
- **Set the tone for the course.** If you want to achieve a more informal tone for the course, arrive a few minutes early and chat with students as they come into the classroom. If you want to achieve a more formal tone for the course, arrive promptly.
- **Introduce yourself.** Include information regarding your office hours and phone number(s). Briefly tell the class something about yourself, such as your research interests or how you spend time outside of the classroom.
- **Break the ice.** Open communication by asking general questions to the entire class. Questions regarding why students are taking a course, what they hope to get out of the course, or class composition (how many first year students, sophomores, juniors, seniors or various majors) are good ice breakers.
- **Have the students introduce themselves to each other.** If students seem uncomfortable about doing this, an instructor can pass a list around upon which students write relevant information, such as students’ phone numbers and e-mail addresses. The list can be copied and distributed to the class members at a later date. Also considering putting this sort of contact information in an on-line environment so students can access it at any time from any place.
- **Review the syllabus.** Instructors should explain the expectations for students and what is required for successful completion of the course, review the course format, and describe any special projects. Instructors should also solicit students’ questions regarding the syllabus or course.
- **End the first session by asking students to take a few minutes to write down their reactions to the first class meeting.** This helps establish a learning environment from the beginning and also provides an instructor with valuable feedback.
- **It is important for instructors to begin learning and using students’ names during the first class meeting.** Although it is virtually impossible to remember every student’s name in an extremely large class, in smaller and average sized classes, it is manageable. Instructors can have students make name cards to be used during the first few sessions until both instructor and students learn everyone’s names --this sends the message that everyone’s identity is important.

Information compiled from the following sources:

1989-1991 *Handbook for Teaching Assistants*. The University of Massachusetts, Amherst.

McKeachie, W. (1986). *Teaching Tips: A Guidebook for the Beginning College Teacher*, 8th ed. Lexington, Massachusetts. D.C. Health Company.

Diversity and Positive Classroom Climate

Current research indicates that gender identity, sexual preference, disability status, and cultural minority group discrimination occurs in the college classroom, regardless of the gender, race, ethnicity, sexual preference, or disability status of the instructor--in other words, we all discriminate in subtle ways against certain groups of students. Studies have shown, for example, that college men receive more classroom reinforcement and encouragement from professors than college women do. Recent students also indicate that minority college students are discriminated against through less encouragement and more critical judgment of their contributions to discussion and perhaps even their written work.

Generally, these discriminatory practices are subtle and instructors are often unaware that they engage in such practices. Nevertheless, the quality of teaching for all students depends significantly on the degree to which the classroom climate makes each student feel respected and included. Therefore, it is extremely important for instructors to become ware of their classroom practices--a process that often requires the help of a colleague or other outside observer--to assess whether any of these practices are discriminatory, and then make the necessary changes. The following is a list of tips and strategies that are designed to help instructors create an equitable and inclusive classroom climate for all students.

- Become aware of influences from your own gender identity, cultural heritage, and other aspects of your personal history.
- Become aware of any biases or stereotypes you may have.
- Treat each student as an individual and respect students as individuals.
- Evaluate your language patterns for language that may demean or exclude one group or another.
- Be sensitive to ethnic and cultural terminology.
- Try to become more informed about histories of various cultural groups.
- If possible, select texts and readings with gender neutral language and without stereotypes. Point out biases in language contexts that do exist.
- Seek out readings and other contributions that reflect scholarship about previously under-represented groups.
- Don't assume that all students will recognize cultural and historical references with which you are familiar.
- When assigning evening and weekend work, try to be sensitive to various student needs, occasioned by jobs, religion, and other responsibilities, without giving students "breaks" that ultimately undermine a student's ability to succeed in your class and in the university or college setting.
- Encourage all students to participate actively in class activities.
- Monitor your own behavior in responding to students.
- Speak up immediately if a student makes a distasteful remark.
- Give assignments that reflect diverse backgrounds and interests.
- In student group work, use mixed groupings to reflect diverse membership whenever possible.

Information compiled from the following sources:

Allen, B. and Niss, J. (1990). "A Chill in the College Classroom." *Phi Delta Kappan*. April.

Davis, B. (1992). "Diversity and Complexity in the Classroom: Considerations of race, ethnicity, and gender." *Tools for Teaching* Jossey-Bass, Inc.

Guidelines for Multicultural and Gender Fair Teaching (1989). Adapted from *Multicultural Education, Issues and Perspectives*. Boston: Allyn and Bacon.

Sadker, M. & Sadker, D. (1992). "Ensuring Equitable Participation in College." *New Directions in Teaching and Learning*. 49 Spring, 49-57.

Discussion

Discussion is an important teaching tool. Discussion techniques that encourage active student learning are particularly appropriate in helping students:

- learn to evaluate the logic of and evidence for their own and others' positions;
- gain opportunities to formulate application of principles;
- become aware of and formulate problems;
- use the resources of other class members;
- gain acceptance of information and theories counter to folklore;
- develop motivation for further learning;
- get prompt feedback on how well objectives are being met;
- learn to respond quickly to the ideas of others.

Using discussion techniques may require a great deal of instructor forethought regarding how to get hesitant students to participate actively. It is also important to remember that discussions are not conducive to covering a significant amount of content. However, discussion techniques encourage students to participate actively in the teaching and learning process in addition to facilitating the development of critical thinking skills. The following is a summary of several different discussion techniques and strategies for facilitating and improving discussion in the classroom.

Developmental Discussion is a problem solving technique in which problems are broken down into parts/stages so that all members are working on the same stage at the same time. Typical stages include the following: formulating problems, suggesting hypothesis, gathering relevant data, and evaluating alternative solutions. Developmental discussion requires participation from all group members and the participation is directed at a specific goal.

Using Buzz Groups is a way to get all members of a group to participate. Members of a group are divided into smaller clusters of four to six people and the clusters are given one or two questions on a subject. One member of the cluster is chosen to record and report the cluster's ideas to the entire group. This technique is particularly useful in larger classes and also encourages shyer students to participate.

Panel Discussion is a technique used to stimulate interest and thinking, provoking better discussion. A selected group acts as a panel, and the remaining members act as an audience. The panel informally discusses selected questions. A panel leader is chosen and he/she summarizes the panel discussion and opens discussion to the audience group.

Debate Discussion is a technique appropriate for discussing a controversial issue. The group is divided into two sides of pro and con. Each speaker should be limited to a predetermined time and the object should be to convince the audience, not to attack the opponent.

Role Playing is a technique used to develop clearer insights into the feelings of people and the forces that facilitate or block good relations. Selected group members spontaneously act out a chosen situation or incident. The whole group then defines the roles and characteristics of the various players.

Brainstorming is useful in generating new ideas and getting group members to utilize their thinking potential. Suitable problems or questions are selected by the entire group. The group generates ideas following these suggestions: no critical judgments, strive for quantity of ideas (wild ideas are welcomed), add to or improve on someone else's idea (if possible). A chosen recorder lists the ideas on the board. The ideas are typed and distributed at the next class meeting.

The instructor's role in discussion is one of facilitating and guiding rather than one of controlling. An instructor should resist dominating or controlling a discussion and limit intervention to guiding and refocusing. Perhaps the hardest thing about using the discussion method is getting discussions started and getting students to participate actively.

To begin discussions and to get students involved in them, you may want to try some of the

following tips and suggestions:

- Allow students time to get prepared for discussions;
- break larger problems into smaller ones;
- ask questions at different levels of abstraction;
- provide encouragement and praise for participation and risk-taking;
- don't use unnecessary jargon;
- learn students' names;
- creatively handle disagreements;
- draw on students' skills;
- provide clear instructions for small group work;
- demonstrate how to critique a theory or hypothesis;
- start discussions with a common experience or a question, or a controversial issue.

In discussions, very often an instructor encounters the “non-participant” or the “discussion monopolizer.” To encourage the non-participant, an instructor can thoroughly explain the purpose of and guidelines for discussion from the outset, get to know students, have students get to know each other, and reward any contribution with at least a smile. In dealing with the discussion monopolizer, an instructor may have the class discuss the role of member participation in the discussion, have one member of a group act as a monitor for a few meetings and then report findings back to the group, or approach the student outside of class.

Information for the above was compiled from the following sources:

- Berquist, W. and Philips, S. (1989) “Classroom structures which encourage student participation.” In Neff and Weimer (Eds.) *Classroom Communication: Collective Readings for the Effective Discussion and Questioning*. Madison, WI: Magna Publications.
- Cashin, W. and McKnight, P. (1989). “Improving discussion.” In Neff and Weimer (Eds.) *Classroom Communication: Collective Readings for the Effective Discussion and Questioning*. Madison, WI: Magna Publications.
- Ewens, W. (1989). “Teaching Using Discussion.” In Neff and Weimer (Eds.) *Classroom Communication: Collective Readings for the Effective Discussion and Questioning*. Madison, WI: Magna Publications.
- McKeachie, W. (1986). *Teaching Tips: A Guide for the Beginning College Teacher*, 8th Edition. Lexington, Massachusetts: D.C. Heath and Company.

Lecturing

Lecturing is one of the primary methods of instruction college teachers use in their classrooms. The method's greatest benefit is efficiency. It can be particularly useful for helping students get information on current research and theories, summarizing materials that are scattered over a variety of printed resources, and adapting materials to particular students' backgrounds and experiences. Lecturing can also build structures and expectations that will enable students to read more effectively.

In order to make the lecturing method most effective, lectures must be well prepared, maintain student attention, and allow for student note taking. In addition, instructor enthusiasm is a key ingredient in a successful lecture. The following is a list of tips useful in making lectures as effective as possible:

Make sure the lecture is well planned and organized. Lectures should be organized around a theme and based on both the logical structure of the subject and the cognitive structure of students' minds.

Be well prepared during lectures. Don't take a verbatim prepared copy to the classroom to lecture from; instead, use an outline or a sequence of cue words or phrases.

Give students an outline of what you will cover in the lecture. Previews of what you will cover, and how you will cover it will help students to stay focused on what you are saying and organize their listening and note taking.

Start lectures with a provocative question or a paradox that the lecture will work to answer or solve, or provide the keys to answering the question or solving the problem, in order to gain student interest in the beginning and keep that interest until the end.

Use indicators to let students know what is coming next, when one topic is finished and another is to begin. Words such as *consequently*, *therefore* and *because* are useful in indicating key points.

Give periodic summaries within the lecture. Summaries allow students time to catch up and aid students in organizing knowledge.

Allow students ample time for note taking. Research indicates that note taking aids in student retention. You may want to consider stopping after 7-10 minutes of lecture to have students summarize for the group what you have talked about and why it is important. This sort of self-reflective work helps students to absorb what they hear and synthesize information.

Make eye contact with students and look for lost or confused faces so you will know when students aren't following the lecture and may need further clarification of a point or a summary of what has been covered so far.

Encourage student participation and/or active learning during lectures by both asking questions periodically during the lecture and allowing time for student questions.

TIP!! To keep students interested during lectures and to reach students who process information visually, an instructor may use various audiovisual aids. Chalkboards and overhead transparencies are two of the most common aides used during lectures. When using the chalkboard, keep writing large and legible. Try not to keep your back to students throughout the entire lecture. When using overhead transparencies, limit the amount of information on each transparency and have the information you wish to put on transparencies organized beforehand. Audio or video tapes can also be used to reach visually oriented students and keep them interested.

Information compiled from the following sources:

Dutch, B., and Burton, T. (Eds.) (1992) *Handbook for Teaching Assistants: The TA at University of Delaware, 1992 - 1993*. Center for Teaching Effectiveness, University of Delaware.

Frederick, P. (1986). *Teaching Tips: A Guidebook for the Beginning College Teacher*. 8th ed. Lexington, Massachusetts: D.C. Heath Company.

Cooperative Learning

Cooperative learning is a set of teaching and learning techniques that allows students to be active participants in their own learning as well as in the construction of knowledge. In cooperative learning, small groups of students work together to maximize their own and each other's learning. Research has shown that cooperative learning techniques promote student learning and academic achievement, increase student retention, enhance student satisfaction with their learning experience, help students develop skills in oral communication, develop students' social skills, promote student self-esteem, and help to promote positive race relations. Cooperative learning also meets the seven principles for good undergraduate teaching practice by encouraging student-faculty contact, encouraging cooperation among students, promoting active learning, providing prompt feedback, respecting and allowing for diverse talents and ways of learning.

There are five main elements to cooperative learning: positive interdependence, face to face interaction, individual accountability, social skills, and reflection. Students must believe that they are linked to other group members, that they are responsible for the learning of others. Instructors must provide assistance, encouragement, time, and physical arrangements to promote student interaction. It is important that individuals understand that they are responsible for their own contribution, and that the group knows which members need more assistance. In order for the groups to function effectively, members must have and use skills in leadership, decision-making, trust building, communication, and conflict management. Generally, these skills must be taught as part of the class/cooperative learning experience, as many students have no experience working collaboratively.

Cooperative teams can be formed in a variety of ways, including letting students choose, or assigning groups based on student interest or ability. Generally, small, heterogeneous groups of three or four students are most beneficial. There are various cooperative learning structures that may be used according to the content and objective of a lesson. Here are some examples:

Think-Pair-Share is a three step cooperative structure. During the first step, individuals think silently about a question posed by the instructor. Individuals pair up during the second step and exchange their thoughts. In the third step, the pairs share their responses with the other pairs, other teams, or the entire group.

The Three Step Interview requires that each member of a team choose another member to be a partner. During the first step, individuals interview (ask clarifying questions) their partners. During the second step, partners reverse the roles. For the final step, members share their partner's responses with the team.

Round Robin Brainstorming asks students to contemplate the answer to a question during a period of silence. After the "think time," members of the team share their responses with one another round robin style. This method can also be used for smaller sized classes.

The Three Minute Review is when the instructor stops the lecture and gives teams three minutes to answer questions, review what has been said, or ask clarifying questions.

Cooperative learning structures can also be used when assigning group projects or tasks to students. The *Student Teams-Achievement Division (STAD)* is a structure in which students are given information from readings, lectures, etc. Teams of four are assigned to complete a worksheet or solve problem sets. Generally, STADs are heterogeneous in grouping. To ensure that cooperative learning in the college classroom succeeds at meeting objectives, instructors should have group tasks very organized, assess students on their individual contributions, keep tasks relevant to course objectives, form groups with care, and prepare students with the necessary social skills needed to work cooperatively. It is important to remember that it takes time for students to work together effectively.

Information compiled from the following sources:

Cooper, J., et. al. (1990). *Cooperative learning and college instruction: Effective use of student learning teams*. Long Beach, CA: California State University Foundation.

Cooper, J., (1990). "Cooperative Learning and College Teaching: Tips from the Trenches." *The Teaching Professor*. 4 (5) 1-2.

Johnson, D., et. al. (1991). "College Teaching and Cooperative Learning." In *Active Learning: Cooperation in the Classroom*. Edina, MN. Interaction Book Company.

Technology in the Classroom

The use of technology in the classroom can greatly enhance the teaching and learning process. Effective use of technology begins with well-conceived and carefully thought out content and learning objectives. Technologies (computers, video, audio, etc.) are then used to perform specific tasks within the teaching and learning scheme. Active multi-media environments (the use of one or more aids such as film, overhead projectors, computers) encourage active student involvement and exploration, self-expression, communication, cooperation and student-instructor collaboration. Multi-media resources and instructional technologies can aid instructors in adapting material for various learning styles. Some of the advantages technology can bring to the classroom include the following:

- **The instructor can accomplish tasks or present information that he/she cannot do by him/herself**, such as helping students experience times, events, and people that cannot be incorporated into the class in other ways (e.g., through the use of film, slides, or live broadcasts).
- **Multi-media may help students visualize phenomena** that are too small or too dynamic to convey with traditional print or gesture (e.g. projection of microscope view, time-lapse photography).
- **Technology can aid in the performance of routine tasks**, such as repetition and drills to help students master content (e.g., use of language labs, computer-aided self instruction packages).
- **Students are prepared for the world of work.** For example: helping students become familiar with computerized/electronic spreadsheets, word processing, computer aided design technologies, information management, and computer assisted communication devices, all can develop potential workplace skills while enhancing the educational process.
- **Instructor and student productivity is enhanced**, thus reducing time for routine record keeping or communication (e.g., writing or revising using computers).
- **The instructor can reach students that choose not to, or cannot, attend class.** For example, video recording class sessions and making those tapes available to students in convenient locations (e.g., the non-print media section of the library or in an accessible on-line environment), can be especially useful in large lectures--both for students who miss class or who just want to review the lecture. Remote location and telecommunication of unique classes to other schools or settings can enhance distance education programs.
- **Technology can allow for more efficient monitoring, recording, and analyzing data in labs.** For example, the use of technology allows the continuous monitoring of an experimental output, such as temperature, pH, color rather than a student collecting individual data points.
- **Instructors can create simulations** of experiments or case studies, allowing students “hands on” experiences they might not otherwise have. Technology allow for models and simulations. Technology gives students the opportunity to construct and study models or situations or events that cannot be done in the classroom, or conduct and repeat virtual experiments that would be time or cost prohibitive.

Examples of technology use in the classroom today are becoming more evident. A range of simple to complex uses can be found in all disciplines: all of these applications can be very useful if properly integrated into the teaching and learning plan for the course.

- Electronic mail is being used to enhance communication between students, faculty, and TAs in courses. Some classes have started experimenting with regular e-mail use to post notices and clarify assignments for students, allow students to ask questions of (and receive answers from) TAs and faculty electronically, and promote communication with others studying similar topics in distant locations. The internet allows for easy, fast communication to individuals in educational institutions worldwide.
- Electronic class platforms, such as WebCT or Blackboard are being used by faculty to deliver class materials, exercises, compile and compute grades, communicate with students in a variety of ways, and perform various sorts of assessments on student work and participation.

- Information technology is being used for classroom presentation and display of lecture notes and support of student note-taking. Local area networks and group support software are being used to increase classroom interactivity and create dynamic problem solving environments for students in a variety of disciplines.
- Many teachers are modeling the use of educational technology they want students to use in their own applications. For example, engineering design classes are being taught using new computer tools which students also utilize in completing project assignments; and science educators are teaching certain concepts using videodisc-based modules which new teachers can subsequently use with the elementary school students they may teach when they go into the schools as practice teachers.
- Physics students experience more active learning, discovery-based approaches with the aid of innovative computer-based programs, and political science and geography students can participate in a wide variety of computer-based simulations, including interaction with students from other countries, as part of regular class assignments and problem-solving activities.
- Foreign language and other classes regularly use cleverly prepared transparencies for overhead projectors to stimulate conversation, as well as clarify and reinforce particular learning objectives.
- English composition students and others involved in writing assignments use computer-based collaborative writing and revising activities to enrich constructive criticism and to enhance writing improvement activities.
- Teachers in many areas regularly assign film viewing or listening to tapes (drawing on the large collection of non-print media resources in the library) to enhance understanding of historical events, anthropological research, science discoveries, etc.

TIP!! See below for examples of technological resources and campus locations.

Information compiled from the following sources:

Albright, M. and Graf, D., Eds. (1992). *Teaching in the Information Age: The Role of Educational Technology. New Directions in Teaching and Learning*, volume 51. San Francisco, California: Jossey-Bass, Inc.

McKeachie, W. (1986). *Teaching Tips: A Guidebook for the Beginning College Teacher*. Lexington, Massachusetts: D.C. Heath Company.

The following is a partial list of campus offices that provide support regarding the use of technology in the classroom. If you need additional information regarding available services.

AT&T Teaching Theaters	5-5190
Campus Photo Services	5-0577
Center for Teaching Excellence	5-9356
OIT Help Desk	5-1500
OIT-Academic Support	5-2065
McKeldin Library Information	5-9075
Nonprint Media Services	5-9236
Office of Academic Computing Services (OACS)	5-1670
Reprographic Services	4-2679
UMTV	5-3610
Visual Presentation Library	5-7325

If you are interested in . . .**Contact . . .**

Using Audio/Visual Materials (slides, videos, etc.)

Center for Teaching Excellence
Nonprint Media Services

Audio/Visual Duplication

Nonprint Media Services
Visual Presentation Lab

Videotaping Teaching in the Classroom

Center for Teaching Excellence

Campus Cable in the Classroom

OIT-Academic Support
Nonprint Media Services

Computer Equipment and Software

Departmental Teaching Theaters
OIT-Academic Support
Libraries

Test Scanning and Scoring

Business Services

Faculty and Student Seminars/Workshops

OIT-Academic Support
Libraries

Photography and Photographic Services

Campus Photo Center

Photocopying

Libraries (limited)
Reprographics Services

Assessing Student Performance

The quality of an instructor's teaching is, in part, a function of the instructor's understanding of the strengths and weaknesses of the students and an assessment of how well they are progressing in reaching course goals and objectives. The depth of that understanding is, in turn, a function of the quality of the instructor's assessment of student achievement. Instructors are more likely to employ sound assessment practices if they are clear about the **purposes** and **uses** of each assessment, the **targets** of assessments, and the appropriate **tools** for assessing different targets.

Purposes and Uses: Different classroom assessments serve different purposes and are used in various ways. In general, however, classroom assessments serve to provide instructors with data about student progress, ability to demonstrate learning of specific aspects of course content or of specific objectives, and whether or not student performance is keeping pace with the nature and rate of instruction. Instructors use the data to make decisions about modifying their instruction if warranted, but they also use the assessments themselves to teach students about their expectations, ways that course content needs to be organized or analyzed appropriately, and what kind of performance is required to be successful. Students use the data to monitor their own progress, gain insight into expectations and requirements, and to make decisions about study habits, what to emphasize, and possible future learning in the field.

Targets: It is important for instructors to define for themselves, and for students, what the "target" is for each assignment. Some targets relate to basic knowledge mastery; others relate to higher order thinking skills, e.g., the ability to analyze problems and to apply knowledge to new situations; others relate to skill development and demonstration of particular skill mastery; others relate to products, e.g., a research report or a model (either produced by an individual or a team), which must demonstrate particular attributes; and others relate to affect, i.e., attitudes or academic self-concepts and values that instructors hope students will develop. All these targets are appropriate, but each implies certain purposes as well as certain forms and tools appropriate for the situation. Clear definitions of targets in terms of forms and tools help students to understand instructional goals and to assess their own progress.

Tools: Instructors can choose from a variety of familiar tools for assessing student performance: quizzes, tests, papers, projects, observation of participation, etc. However, whatever the choice, it is important to be sure that the tool is *consistent* with the purpose of the instruction and of the intended use of the data, as well as the target to be evaluated. Some examples of available tools are listed below:

Preassessment: Giving a quiz or test at the beginning of a course can tell the instructor something about the range of preparation levels in a class, areas of strength and weakness, and what areas of knowledge may need the most attention. Preassessments should not be counted for grades, and students should understand that the purpose is to improve the quality and level of instruction in the course.

Objective Tests: These tests (multiple choice, true/false, etc.) generally are designed to sample knowledge with maximum efficiency and reliability. If constructed carefully, objective tests can assess knowledge both at the factual recall level as well as the higher cognitive levels.

Essay Tests: These tests generally seek to assess thinking skills and the ability to organize and present knowledge effectively in a particular field. In some cases, instructors give take-home exams of the essay type when it is not deemed important to assess students' knowledge within a timed context or strictly from memory. In the same vein, open book tests may be used when memorization of materials is not a target of the assessment. Each essay question should tell the student what the criteria for an acceptable response are, so that answers will not be too long, too short, or off target.

Oral Questions: It is recommended to use oral questions to assess knowledge during instruction. Even in large lectures, it can prove very helpful to students and instructors to pause periodically, raise a relevant question based on the material covered so far, and sample student ability to respond appropriately.

Performance Assessments: This method is designed to assess student ability to transfer knowledge and understanding into action. Review of architectural and art projects is an example of such methods, often combining knowledge and skill assessments in one process.

Projects and Papers: Sometimes the best assessment of student achievement requires a project or a research paper. These may be individual or group products, depending on instructor purposes. For example, in some fields it is very important to learn how to work as part of a team; thus, performance in that context would be an appropriate choice.

A variety of tools may be used in any given course. However, consideration in all cases must take into account how much time the assessment will consume for instructors and for students, how clearly criteria for success are articulated to students, and how well the assessments are constructed. For example, the following are criteria for making effective tests:

- **Decide what the test is supposed to measure and communicate that purpose.** If instructors emphasize the need for students to be able to analyze and solve problems and to apply their knowledge, they should not use recall-level tests for assessment of such achievement.
- **Make sure that tests sample the breadth and depth of the material they cover.** For example, a final exam in U.S. History would be inadequate if it only asked about the War of 1812; it would be similarly deficient if it asked only for recall of dates and names and didn't ask students to analyze, compare and contrast, draw inferences, and otherwise use their knowledge.
- **Keep out irrelevancies.** In part, this means tests should be free of bias toward any racial, ethnic, cultural, or gender group and should avoid measuring any characteristic not part of the test's content. For example, the history test should not be scored so that students with better handwriting receive credit for more than their knowledge of history warrants.
- **Tests must be practical.** Make sure that the test can accomplish the purpose in the time available and with the resources at hand. Unless working quickly is a course objective, all students should be able to respond thoughtfully in the allotted time.

Information has been compiled from the following sources:

- Allen, R.R., and Rueter, T. (1990) "Assessing Student Learning." *Teaching Assistant Strategies*. Dubuque, Iowa: Kendall/Hung Publishing Co.
- Hall, K. (1992). "Co-assessment: The bridge between student self-assessment and teacher assessment." Paper presented at the 12th Annual International Seminar in Teacher Education, University of New England, Armidale, N.S.W., Australia.
- McKeachie, W. (1986). "The ABC's of Assigning Grades." *Teaching Tips: A Guidebook for the Beginning College Teacher*. Lexington, Massachusetts: D.C. Heath Co.
- Shafer, W. (1993). Module I - Why test?
- Stiggins, R. (1992). "High Quality Classroom Assessment: What Does it Really Mean?" *Instructional Topics in Educational Measurement*. Summer.

Grading

Grading is one of the means of communication between instructors and students. Through grades, instructors may be telling students the degree to which they have exhibited their work habits, motivation, skill, knowledge and ability, as well as their achievement of the goals of a particular course. Students may use grades to assist them in decisions about whether or not they can compete successfully in comparison with others. Grades also communicate a student's achievement to others outside the class and the university. The University of Maryland at College Park's official interpretation of letter grades is as follows:

A+, A, A- .. denotes excellent mastery of the subject and outstanding scholarship.

B+, B, B- .. denotes good mastery of the subject and good scholarship.

C+, C, C- .. denotes acceptable mastery of the subject and usual achievement expected.

D+, D, D- . denotes borderline understanding of the subject, marginal performance, and does not represent satisfactory progress toward a degree.

F denotes failure to understand the subject and unsatisfactory performance.

***NOTE:** grades of **Satisfactory**, **Pass/Fail** or **Incomplete** are options under special circumstances. All this information is taken from the Undergraduate Catalogue which is now available on line at the following address: <http://www.inform.umd.edu/CampusInfo/Departments/InstAdv/UnivPub/ugradcat/>

In order to grade student performance effectively and communicate appropriately through the grades they give, instructors need to determine their philosophy of grading, the kind of performance evaluation appropriate to the nature and purpose of the course, and then the appropriate grading system and methods. Two considerations appear to be fundamental in almost all cases and disciplines:

1) instructors need to believe that the grade they assign measures achievement, and 2) students need to believe that the grading system is fair.

A basic decision in determining an approach to grading pertains to the meaning an instructor chooses to communicate with each letter grade. In defining that meaning, an essential consideration is whether the grade indicates achievement in terms of a *relative standard*, (norm-referenced) or an *absolute standard* (criterion-referenced). For example, does a "C" mean average, usual or acceptable performance *compared to others in the class* (relative standard), or does it mean acceptable performance in terms of *specific, most important course objectives* (absolute standard)? The table below describes the comparison between these two basic approaches:

Grade	Absolute Scale Criterion Referenced	Relative Scale Norm Referenced
A	<ul style="list-style-type: none"> •Firm command of knowledge domain •High level of skill development 	Far above class average
B	<ul style="list-style-type: none"> •Exceptional preparation for later learning •Command of knowledge beyond minimum •Advanced development of most skills •Has prerequisites for later learning 	Above class average
C	<ul style="list-style-type: none"> •Command of only basic concepts and knowledge •Demonstrated ability to use basic skills •Lacks some prerequisites for later learning 	At the class average
D	<ul style="list-style-type: none"> •Lacks knowledge of some fundamental ideas •Some important skills not attained •Deficient in many of the prerequisites 	Below the class average
F	<ul style="list-style-type: none"> •Many basic concepts and principles not learned •Most essential skills cannot be demonstrated 	Far below class average

A few examples of grading methods are identified below:

For criterion-referenced grading

Contract Grading: The student and the instructor prepare a written contract stating defined tasks that students must complete to reach specified grade levels. A variety of options may be defined for fulfilling contracts for a particular grade.

Competency-Based Grading: Students are graded for achieving mastery of some or all of the material in a course according to specified objectives. This is especially useful in pass/fail grading situations.

For norm-referenced grading

Grading on a Curve: This method is based on the premise that the grades in a class should follow a Gaussian (normal) distribution. The instructor determines the percentage of students who should be assigned each grade so that the distribution appears normal. This method may be especially appropriate in large classes. Alternatively, test scores may be transmitted using a formula based on the class mean or standard deviation.

Adaptable for either criterion or norm-referenced grading

The Total Point Method: Students must accumulate points by achieving specified goals or scores. Grades are assigned according to the total points earned.

The Co-Assessment Method: Grades are assigned according to an agreed-upon weighted average of the student's self-assessment of performance and the instructor's assessment.

Several misuses of assessment and grading have been identified by educational researchers. A few of these are included below:

- failing to recognize and account for assessments such as test scores that are atypical for a student-- such scores may have resulted from unusual circumstances, and therefore should be deemphasized;
- assigning zeros for missing or incomplete work, which is not valid as an indicator of progress and has devastating effects on averages;
- emphasizing higher order thinking during instruction but only recall and other simple knowledge skills on tests used to determine student grades
- using unannounced quizzes, which do not motivate, assess only incomplete learning outcomes, and waste valuable instructional time;
- averaging raw, untransformed test scores, which does not weight them as intended.

Information was compiled from the following sources:

Frisbie, D., & Waltman, K. (1992). "Developing a Personal Grading System." *Instructional Topics in Educational Measurement*. Fall.

Hall, K. (1992). "Co-assessment: The bridge between student self-assessment and teacher assessment." Paper presented at the 12th annual International Seminar in Teacher Education, University of New England, Armidale, N.S.W., Australia.

McKeachie, W. (1986). "The ABC's of Assigning Grades." *Teaching Tips: A Guidebook for the Beginning College Teacher*. Lexington, Massachusetts: D.C. Heath Co.

Shafer, W. (1993). "Assessment Literacy for Teachers." *Theory Into Practice*, 32, 118-126.

Stiggins, R. (1987). "Design and Development of Performance Assessments." *Instructional Topics in Educational Measurement*. Fall.

Self-Evaluation and Classroom Research

Classroom assessment is a process of involving instructors in the systematic study of teaching and learning. Through close observation, collection of feedback, and design of experiments, instructors can learn more about how students respond to various teaching approaches. Models of classroom research and assessment are based on several underlying assumptions:

- Quality of student learning is directly related to quality of teaching.
- To improve teaching, instructors need to make objectives explicit and they need to receive feedback regarding the extent to which these objectives are being met.
- The research that is most likely to improve teaching and learning is conducted by instructors.
- Classroom research can be done by anyone capable of and dedicated to college teaching.

Classroom research techniques can be particularly appropriate for assessing teaching and learning in three areas: academic skills and intellectual development, students' self-awareness as learners, and student reactions to an instructor and/or course. The following outlines a few techniques that can be used in addressing these areas.

Academic Skills and Intellectual Development

Focused Listing can be used to determine what learners recall as the most important points related to a particular topic. Instructors select a topic recently covered in class and describe it in a word or short phrase. The word or phrase is written on a piece of paper as a heading. Within a determined time limit or limit on the number of items to be written, instructors make a list of important words or phrases that relate to the heading. After rereading the list, if an instructor feels that it is still an important topic, he/she can ask students to make lists. The instructor's list can be used as a master to compare to students' lists. The data collected from this technique can be analyzed both quantitatively and qualitatively.

Concept Maps provide observable and assessable records of students' conceptual schemata. Instructors choose a concept to use as a stimulus or starting point for the concept map. After brainstorming for a few minutes, instructors write down terms and phrases related to the concept and then draw a concept map based on the brainstorming. Within the maps, primary, secondary, and even tertiary associations should be identified. Once instructors are satisfied with the concept maps they have created, they can explain the process to students and ask them to make their own concept maps. The instructor map can serve as a master copy for comparison in analyzing the data collected from this technique. Results are best analyzed in terms of content and types of relations identified on the concept maps. These results could be used as a graphical representation that helps students see content in a different way.

Students' Self-Awareness as Learners

Dual-Viewpoint Skills Portrait asks students to assess their level of development in course-related skills from more than one point of view. For this technique, an instructor identifies skills that the course is designed to strengthen and determines how students can observe themselves demonstrating these skills (videotape, audiotape, notes, etc.). Providing the students with fairly specific guidelines regarding what skills to focus on and what point of view to use, an instructor directs students to write a description of their performance and to assess their performance in the focus skills using the following categories: ineffective, adequate, or very effective. The instructor can compare students' self-assessments with their own assessment of the students. This technique also provides valuable information about the degree to which students can describe and analyze their own skills and how well

they can empathize with the viewpoints of people who will be affected by their skilled performance.

The Punctuated Lecture Technique is designed to provide immediate feedback on how students are learning from a particular lecture or demonstration. The instructor chooses a lecture that introduces new material and that can be broken into ten to twenty minute segments. Twice during the lecture the instructor stops and asks students to take a few minutes to reflect on and write about their behavior during the lecture and how that behavior might help or hinder their learning. The instructor collects the feedback and analyzes the comments with the goal of helping students develop skills to effectively monitoring their own listening and comprehension.

Students' Reactions to Teaching

Teacher-Designed Mini Evaluation Forms, containing three to five questions, are useful for collecting student reactions to questions an instructor feels are important regarding his/her teaching. An instructor determines a few questions that closely relate to instructional goals for the class and develops appropriate coded responses such as multiple choice, scale, or short fill-in answers. The evaluation form should be carefully worded to collect constructive responses, and students should be permitted to return the forms anonymously. This technique can be used at regular intervals throughout the semester to allow the instructor time to make any necessary changes.

The One Minute Paper is a technique that is particularly useful in large lecture courses to obtain anonymous student feedback on one or two questions. During the last five to ten minutes of a class session, an instructor asks students to respond frankly and concisely to one or two questions. This technique can provide feedback that will result in more effective teaching and learning. Examples of two questions that might provide relevant feedback are 1) What is the most important thing you learned in today's class? and 2) What question/s that you have from today's class remain unanswered?

When using any classroom technique, an instructor should remember to choose techniques that will be likely to provide assessment information that will benefit both the instructor and students in tangible ways.

This information compiled from the following sources:

Cross, P. and Angelo, T. (1988). *Classroom Assessment Techniques, a Handbook for Faculty*. Ann Arbor, MI: National Center for Research to Improve Postsecondary Teaching and Learning.

Angelo, T. (Ed.) (1991). *Classroom Research Early Lessons From Success*. San Francisco, CA: Jossey-Bass, Inc.

Teaching Portfolios

There is an ever-growing concern about the quality of teaching on college campuses. More and more universities and colleges are considering the importance of teaching in promotion and tenure decisions and in the improvement of the teaching and learning process. One way an instructor can document his or her performance as a teacher is through the teaching portfolio.

The teaching portfolio is a collection of materials codifying an individual's performance, bringing together strengths and accomplishments. Teaching portfolios are unique to the individual they represent--no two instructors are exactly the same. However, there are basic structural guidelines for creating a teaching portfolio:

- Summarize your teaching responsibilities. Cover items such as the number and types of courses taught, how students are evaluated, and what progress is expected from students.
- Select criteria for effective teaching. Include items that are most applicable to your teaching responsibilities and reflect your teaching style. Prepare a factual statement about your teaching accomplishments in each area.
- Assemble your support data. These data can include student workbooks, teaching logs or journals, student teaching evaluations, etc.

There is a variety of information and support items that can be included in a portfolio. The following is a list of suggested items that an instructor might include:

Materials from Oneself

- Reflective statement by an instructor describing teaching philosophy, strategies, and objectives.
- Representative course syllabi
- Description of steps taken to evaluate and improve teaching.
- Self-evaluation by instructor
- Contributions to or editing of professional journals on teaching
- Information regarding the direction of or participation in honors programs, graduate theses, and group research activities.
- Description of the kinds of classes taught: seminars, survey courses, CORE courses, etc.

Materials from Others

- Statements from colleagues who have observed the instructor's teaching
- Statement from colleagues who have reviewed the instructor's out of class activities, such as curricular development
- Honors or recognitions from colleagues
- Invitations to teach from outside agencies or to present a paper at a conference about teaching
- Invitations to other campuses to demonstrate effective teaching

Products of Good Teaching

- Student scores on tests or student papers as evidence of learning
- Student creative work
- Information about the effect of the instructor's course on student career choices
- Statement by alumni on the quality of the instructor's teaching

Much of the literature on teaching portfolios suggests working with a partner to help collect and organize portfolio contents. A partner could be a colleague, department chair, senior faculty member, or a representative from the Center for Teaching Excellence.

Information compiled from the following sources:

Seldin, P. and Annis, L. (1992). "The Teaching Portfolio." *Teaching Excellence* 3 (2) 1-2.

Seldin, P. (1991). *The Teaching Portfolio: A Practical Guide to Improved Performance and Promotion/Tenure Decisions*. Boston: Anker Publishing.

Waterman, M. (1990). *Items That Might Be Included in a Teaching Dossier*. University of Pittsburgh.

Folio Reviewers

Maryam Alavi, *Business and Management*
Linda Alexander, *Health Education*
Ira Block, *Material and Nuclear Engineering*
James Byrnes, *Human Development*
George Calcott, *History*
Roberto Celi, *Aerospace Engineering*
Jerry DeBarthe, *Animal Science*
Ellen Drogin, *Recreation*
Arthur Eckstein, *History*
Robert Freidel, *History*
Judith Hallett, *Classics*
Susan Handelman, *English*
June Hargrove, *Art History*
Roberta Lavine, *Spanish and Portuguese*
Marynard Mack, Jr., *English*
Vince Marando, *Government and Politics*
David McDowall, *Criminal Justice and Criminology*
Maria McIntosh, *Agronomy*
Robyn Muncy, *History*
Timothy Ng, *Horticulture*
Richard Racusen, *Botany*
Edward Redish, *Physics*
Tom Regan, *Chemical Engineering*
Deborah Rosenfelt, *Women's Studies*
David Sammons, *Agronomy*
Robin Sawyer, *Health Education*
William Schafer, *Measurement, Statistics and Evaluation*
Glenn Schiraldi, *Health Education*
Steve Selden, *Policy, Planning, and Administration*
Richard Solomon, *Office of Laboratory Experiences*
Deborah Speece, *Special Education*
John Splaine, *Policy, Planning, and Administration*
Gregory Staley, *Classics*
Ron Tercheck, *Government and Politics*
Pierre Verdaguer, *French and Italian*
Kathryn Wentzel, *Human Development*
Scott Wolpert, *Mathematics*
Guangming Zhang, *Mechanical Engineering*