7th Edition | **Office of Distance Learning**

INSTRUCTION AT FSU

A Guide to Teaching and Learning Practices

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THE FLORIDA STATE UNIVERSITY
OFFICE OF DISTANCE LEARNING

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INSTRUCTION AT FSU

A Guide to Teaching and Learning Practices

This handbook has been designed to help those instructional faculty and graduate teaching assistants who are interested in being more effective teachers. It offers strategies used by experienced instructors and presents instruction methods and techniques following four components of Instructional Design: Course Planning, Lesson Delivery, Student Testing and Grading, and Course Revision and Evaluation.

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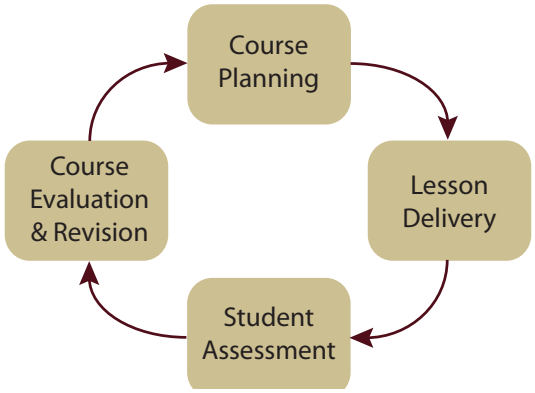
I. Course Planning - Content
Chapter 1 - Designing an Effective Course

Instructional Design starts with course planning, continues with lesson design and delivery, moves through student assessment and grading to conclude with course evaluation and revision. The process is continuous and can start at any stage. In this chapter we introduce the tasks in designing effective courses; subsequent chapters discuss the various components in greater detail.

Instructional Systems Developmental Process



The First Steps Toward Designing an Effective Course

Tasks in Designing Effective Courses:

1. Gather information on the university culture, faculty and course content expectations, and your students and their needs.
2. Decide upon the goals for the course and specific learning objectives for students.
3. Develop student assessment methods that directly reflect the learning objective.
4. Select content, learning activities, teaching methods, materials, and media that are appropriate and relevant to those goals and objectives.
5. Implement the course plan, creating a learning environment and a community of learners.
6. Revise the plan after assessments and evaluations.

1. Gather information on the university culture, faculty and course content expectations, and your students and their needs.

University culture - New faculty should quickly try to become part of the university culture. Become part of the social structure of the University by spending time on campus and learning about important resources available to you and your students. This handbook is one such resource.

Related Chapters

Chapter 4
Knowing Your Students highlights the diversity among FSU students and how these differences might impact your teaching.

Chapter 5
Managing Students and the Classroom Climate discusses some of the typical questions and concerns that should be addressed in the early days of your course design.

Chapter 6
Especially for TAs offers useful advice to teaching assistants for managing the classroom environment and for maintaining a balance between teaching and their own studies.

Chapter 15
Support and Resources lists faculty and student support resources.

Your students and their needs - After accepting a new course assignment, instructors should acquire as much information as possible about the students they will be teaching. A student skills survey is helpful because it causes you to think about what skills you expect a student to have when entering your course, and what they should be able to demonstrate when they leave. A student survey answers the question: What do the incoming students know about what it is you are going to be teaching?

As a course-planning tool, the survey should tell you what the students already know that you can build on. The single best predictor of what students will learn in your course is what they already know.

Course content expectations - The needs and expectations of university students are as varied as the students themselves. Students' learning needs in the subject area should be identified. Much information can be gathered from the General Bulletin, your department's official course description, lists of prerequisites, previous syllabi, and the assigned textbook.

Faculty expectations - Others who have taught the course and have had past experience with similar groups of students can give valuable help. The expected content of your course can be clarified by seeking out these sources.

2. Decide upon the goals for the course and specific learning objectives for students.

In an effectively-designed course, all course components, defined as learning objectives, activities, and assessments, should be aligned. Learning objectives can be thought of as desired learning outcomes. Stay focused on the learners while asking yourself the following:

- What will your students be able to do after your course that they cannot do now?
- What activities can you facilitate so that students learn better?
- How will they show you that they know it?

As you read through this manual, you will see how objectives, activities, and assessments fit together to form an entire course.

Related Chapter

Chapter 2
Determining Learning Objectives provides guidelines for writing goals and objectives that will aid you in course design and delivery.

Chapter 3
Creating a Syllabus outlines the required components of a course syllabus at FSU and discusses how the syllabus communicates your course expectations to students

3. Develop student assessment methods that directly reflect the learning objective.

If the purpose of instruction is helping students to acquire the learning outcomes, the purpose of assessment is to determine if the student was successful. The best time to write assessment tools is right after you have written your learning outcomes statement. With this timing, it is likely there will be a high degree of congruence between what was intended and what is measured. The goal should always be to measure student achievement as accurately and fairly as possible. One way to do this is to align the assessment with the learning outcome as closely as possible.

Pencil and paper tests using limited-choice (multiple choice/true-false) and/or open-ended questions (essay, short answer) are common methods of student assessment. In addition to the learning outcomes, other considerations when constructing a test include class size, time available for test preparation, administration, grading, and type of feedback you want to provide.

Authentic assessments such as research papers, portfolios, projects, performances, and peer evaluations offer ways to measure student performance in a real-life context. In developing authentic assessments, it is important to note that students may not have the research and information literacy skills to use and evaluate information in your discipline. Class time may be needed to teach these skills, as well as how to avoid plagiarism mistakes.

Related Chapters

Chapter 12
Testing and Assessment Issues discusses the types of assessments that are generally used in university settings.

Chapter 13
Grading provides tips on fairly grading assessments and discusses issues such as plagiarism that should be addressed in course planning.

4. Select content, learning activities, teaching methods, materials, and media that are appropriate and relevant to those goals and objectives.

Texts are one of the major resources used in a course. Using a text wisely can help a student prepare for class and can be a valuable resource for practice. A good text is invaluable because:

- It is well organized.
- Generally, it is nearly complete.
- It can be read at the student's convenience.
- Selecting learning activities for your students is another major consideration when planning a course. Learning, by nature, is an active process; students learn better when they are involved with their learning; and people learn in different ways.
- Design learning activities with your desired learning outcomes in mind.
- Allow students to see the relevance and importance of the course material.
- Give students the chance to use, demonstrate, or question the content.
- Choose activities that match the desired performance, e.g., if the desired outcome is problem solving, you might use case studies or role-playing.
- Help students understand what your expectations are and give them feedback.

There are learning activities that are appropriate for almost all class sizes, which can be accomplished with minimum disruption to the class, that require little or no change in facilities, and, most importantly, that will get your students actively participating in their learning process. Most active learning activities such as class discussions, collaborative exercises, short writing assignments, and interactive presentations can be used in most classes.

For web-supported classes, threaded discussions are very effective. Also, groups can be set up through the website, which will allow students to work together electronically to produce a project, product, or presentation.

Related Chapters

For a list of more active learning techniques and details on how they can be used in your classroom, see **Chapter 8: Using Active Learning in the Classroom**.

For information on instructional media, see **Chapter 9: Instructional Media: Chalkboards to Video** and **Chapter 10: Using Course Websites as Instructional Tools**.

For information on teaching methods, see **Chapter 7: Lecturing Effectively** and **Chapter 11: Teaching Contexts**.

5. Implement the course plan, creating a learning environment and a community of learners.

After planning the course, it's time to meet the class and teach, but before you do so, consider the following. First, the purpose of the course and class is that the students learn something. Second, your role as an instructor is to help them learn it. What is the best way for you to help students learn what you want them to by the end of the course?

A framework for lesson delivery that is successful consists of six parts:

1. Gain the students' attention and establish expectations.
2. Review relevant, previously learned material.
3. Present the new information by linking it to previous learning.
4. Provide learning guidance or elaboration.
5. Provide time for practice and feedback.
6. Provide for spaced practice to enhance retention.

6. Revise the plan after assessments and evaluations.

Course evaluation, instructor evaluation, and revisions to the course should be seen as part of the larger picture of instructional design. It is rare that a course or instruction cannot use some improvement. Course revisions involve the collection and interpretation of data for the purpose of improving instruction.

Related Chapter

Chapter 14
Improving Your Teaching with Feedback offers several methods you can use to obtain information on improving your courses and teaching methods.

Chapter 2 - Determining Learning Objectives

In this chapter we help you identify the goals and objectives you want students to reach by the end of the course, and provide guidelines for using your objectives when designing your course.

- **Instructional Goals and Learning Objectives**
- **Course Design Guidelines**
- **Resources and Related Chapters**

Instructional Goals and Learning Objectives

Importance of Goals and Objectives

Clearly defined goals and objectives form the foundation for selecting appropriate content, learning activities, and assessment measures. If objectives of the course are not clearly understood by both instructor and students, if your learning activities do not relate to the objectives and the content that you think is important, then your methods of assessment, which are supposed to indicate to both learner and instructor how effective the learning and teaching process has been, will be at best misleading, and, at worst, irrelevant, unfair, or useless.

Step 1 - Establish a Course Goal

Stated simply, a course goal is a global statement about the projected outcomes of the course. Generally, a course goal is a broad statement that will include many subordinate skills.

Examples

Nursing Concepts course – With an emphasis on health, family, interdisciplinary communication, teaching/learning, and crisis intervention, students will be able to apply introductory critical concepts and nursing strategies.

Family and Social Change course – Using a basic sociological approach, students will be able to observe, describe, and discuss conditions, issues, and problems of familial organizations within the context of changing institutional structures of modern society.

Physical Geography course – Students will be able to describe how global variations in climate, landforms, and natural habitat affect changes and life on earth.

Step 2 - Arrange Content in Topical Units

The course goals listed above do not detail actual student performances or how they will be measured. Thus, your next step is to break down the goals and determine specific learning objectives that students will be able to achieve. However, before writing specific objectives it is often helpful to break the course content down into smaller "topical" units.

In a course called "Relational Databases," the course goal would be: The student will be able to design, develop, and evaluate a database application to facilitate worker performance on the job.

Examples

Topical units and time frames in this course would be:

Unit 1	Introduction to database applications, relational databases, and Microsoft Access	2 Weeks
Unit 2	Data tables, data types, and relationships Exam 1	2 Weeks
Unit 3	Queries Exam 2	4 Weeks
Unit 4	Forms and reports Exam 3	4 Weeks
Unit 5	User navigation and security	1 Weeks
Unit 6	Internet issues Final Project due	1 Weeks

By breaking the course down into units and associating a time frame with the units, it becomes obvious which units are going to require the most instructional emphasis, and which will require the most testing.

Step 3 - Define Learning Outcomes

The next step is to define learning outcomes for each of the units, which requires writing subordinate goals for each of the units. For the following example, we have used "Unit 3 – Queries" from the above example.

Example

Unit 3 – Queries (4 weeks – 3 hours of instruction per week)
- Introduction (3 hours)
  - Kinds and purposes of queries
  - Dynasets
  - The query editor – creating and storing a query
- View queries
  - Single table view queries
    - Sorting data
    - Filtering data
    - Selection queries
    - Simple selection query
  - Related table queries
    - Adding tables and fields
    - AND, OR, NOT criteria
  - Action queries (4 hours)
    - Calculated fields in a query
    - Delete queries
    - Make table queries
  - Rules for adding data to a table from within a query (1 hour)
  - Parameter queries (3 hours)
    - Parameters / Filters
    - Passing parameters
  - SQL – The language of queries (1 hour)

Since this is an example of an introductory course, only one hour is being given to the SQL topic in this course. At a higher level, the SQL topic should be a course in itself.

Step 4 - Write Learning Objectives

The next step is to write learning objectives for each of these subordinate topics. As an example we have used the Unit 3 topic "Calculated fields in a query."

Example

Topic: Calculated fields in a query

Objective: Given a problem and appropriate data tables, the student will be able to demonstrate the construction of a calculated field in a query to multiply data from a field in one table with data from a field in another table.

Examples

- Given geological ages of rock formations, the student will be able to categorize the relative ages (youngest to oldest) of those formations according to the geologic time scale.
- Students will be able to describe a possible correlation study in their area in which a specified regression model would be used.
- The student will be able to compare Piaget's and Vygotsky's theories about cognitive development.
- The student will be able to generate an example of the negation stage of the Hegelian Dialectic.

What is a Learning Objective?

A learning objective answers the question: "What is it that your students should be able to do at the end of the hour that they could not do before?"

A learning objective makes clear the intended learning outcome or product of instruction, rather than what form the instruction will take.

Learning objectives focus on student performance. Action verbs that are specific, such as list, describe, report, compare, demonstrate, and analyze, should be used to describe the behaviors students will be expected to perform.

Reasons for Developing Objectives

Objectives help reduce complaints because:

- Students can see how the material is related to their educational goals or to any other goals they can recognize as being important.
- Your tests will correspond to the stated learning objectives. (Once you have written your learning objectives, you have defined your assessment materials.)
- Students know what to study and what they are expected to be able to do after the instruction.
- Your course is organized. (With objectives, the topics fit together and have direction.)

In short, learning objectives communicate what the instructor is trying to teach; what the students are to be expected to be able to do; how their achievement will be measured; and what will be accepted as evidence that they have achieved the goals.

Types of Learning Outcomes

Most of us recognize that there are many different types of objectives. Some are easy, only requiring the simple recall of a definition. Others are more complex, requiring problem solving or evaluation.

One popular categorization scheme for types of objectives is Benjamin Bloom's (1956) *Taxonomy of Objectives for the Cognitive Domain*, which includes the following levels:

- **Knowledge** - Primarily concerned with students' ability to memorize or recall certain specific facts.
- **Comprehension** - Usually involves the ability to interpret, paraphrase, and extrapolate, thus demonstrating students' basic understanding of ideas that they did not originate.
- **Application** - Includes activities in which the student applies concepts and principles to new and/or practical situations.
- **Analysis** - Concerned with breaking down a piece of information into its constituent parts, differentiating and denoting.
- **Synthesis** - Involves the blending of elements and parts to form a whole. Students should be able to create a structural pattern that was not previously present.
- **Evaluation** - At this highest level, students might judge the value of a work, the logical consistency of written data, or the adequacy of someone else's conclusions.

Higher-level vs. Lower-level Objectives

Research indicates that although most faculty think they teach toward higher-level objectives, in reality most instruction, even at the university level, favors only lower-level learning. The benefit of Bloom's taxonomy is that it allows us to focus our attention on the higher levels of learning. That is, if we write our objectives at these levels, we are more likely to teach creative instruction that helps learners accomplish these objectives.

Most instructional specialists argue that effective objectives (and well-designed courses) should always include some higher-order objectives and not center exclusively around retention and understanding. Yet it is understood that in most curricula there are foundational knowledge and comprehension requirements that must be achieved before higher-order objectives can be addressed.

The Role of Verbs in Learning Objectives

A statement about the content to be learned in a course (e.g., "understand calculation queries") does not tell us what students are supposed to be able to do with the content. Are they supposed to define it? Explain it? Apply it? To write effective objectives, we suggest the use of action verbs that clarify what the learner will do to demonstrate understanding.
Some verbs are more commonly used with certain levels of learning objectives.

Bloom's Level of Learning	Action Verbs
Knowledge	Define, list, name, describe, tell, identify, show, label, quote (tell the "who," "when," "where")
Comprehension	Explain, describe, summarize, interpret, contrast, predict, distinguish, estimate, give examples
Application	Relate, determine, apply, demonstrate, calculate, examine, modify, discover, show
Analysis	Identify, analyze, explain, arrange, discriminate
Synthesis	Integrate, modify, rearrange, plan, create, design, compose
Evaluation	Decide, rank, convince, judge, summarize, evaluate

This is a modest list; you can certainly find other verbs that may better describe what you want your students to accomplish in your discipline.

Example

If you are teaching Theater and are in the process of producing a play, you might think your students are on the "application" level when you ask them to perform a particular role in that play. But, because they may be integrating their experience from previously performed roles, they would actually be on the "synthesis" level.

When developing learning objectives, consider:

Good learning objectives are neither so narrowly stated that they represent the intended curriculum mechanically, nor so generally stated that they give little clarity to the intended goals.

Objectives should not discourage creativity on the part of either instructor or learner, nor should they take away the need for the instructor to communicate the "challenge" of studying and learning to students.

Other dangers to be aware of are objectives that insult students' intelligence, that are restricted to lower-level cognitive skills, or that result in over concentration on small details of the content that cause students to miss the "big picture."

Ambiguous objectives - such as "The students will understand what makes good theater"- are not especially useful. Referring to a specific behavior or ability that the instructor wants the students to gain as a result of the instruction would be more useful.

Examples

- Theater students will list Smith's five criteria for the evaluation of a play and give a rationale for each. (lower-level objective - knowledge)
- Theater students will apply Smith's five criteria to the evaluation of a play and present a rational for their evaluations. (higher-level objective - evaluation)

Using Objectives to Structure a Course

In *Teaching Assistants: A Handbook of Teaching Ideas* (1982), John Andrews suggests that instructors answer the following questions as a means for planning an effective course. Instructors are then able to see how objectives shape and organize planning for other aspects of the class. Note that the questions initially focus on the end point and then work backward in time to the first action the instructor will take.

- How does the instructor want students to be changed as a result of this class? What should they be able to do that they cannot do now?
- How are these changes to be measured? What sort of performances (exams, projects, papers, etc.) will be the criteria?
- What subject matter will be covered to help students meet the expectations in numbers 1 and 2?

- What about the "how" of teaching? What sorts of formats, activities, or media will be used to help students practice the abilities needed to meet the expectations in numbers 1 and 2?
- How are expectations communicated to the students? What is their view of the objectives they will need to meet? (Note: Instruction is often very successful when students have been included in the development of their own learning objectives for the course.)

Putting Objectives into Practice When Designing Imaginative Classroom Activities

Once objectives have been set, the next task is to put them into practice. Traditional classroom activities typically consist of lecture/discussion mixes or lectures coupled with laboratory demonstrations, yet a variety of other methods exist for the delivery of instruction. The lecture is one of the weakest types of learning activities if used inappropriately to deliver new information. Lectures are much more effective when they provide learning guidance for the students, that is, when they elaborate on what the student already knows.

Suggestion

Begin with the learning objectives. Select alternative methods of instruction to the standard lecture and discussion format only if they will help students more easily attain the objectives that have been established for the course. For additional suggestions and information about nontraditional forms of instruction, contact the Office of Distance Learning.

Related Chapter

Some active teaching techniques that are designed to get students more involved in learning are discussed in Chapter 8: Using Active Learning in the Classroom.

Course Design Guidelines

- Select learning objectives according to clearly determined student needs.
- Analyze learning objectives to determine course content.
- Use course objectives to develop learning activities and methods of assessing student performance.
- Analyze student characteristics to identify those factors that should influence the way these learners are taught. (Chapter 4: Knowing Your Students presents information about various student characteristics.)
- Select learning activities that will maximize student achievement of course objectives.
- Use media to support learning activities and their intended outcomes. (Suggestions for using media are presented in Chapters 9 and 10.)
- Evaluate the effectiveness of your learning activities, media, and teaching performance to identify areas for improvement.

Adapted with permission from *Teaching at The Ohio State University: A Handbook*, Center for Teaching Excellence (1990).

Suggestions

To meet the minimum requirements for effective instruction, instructors should:

- Specify the goals to be obtained.
- Formulate learning plans by first specifying the desired objectives of the instruction.
- Assess the effectiveness of the instruction.
- Make successive revisions of the learning activities for cumulative improvement as indicated by assessment results.

Example of a Course Planning Worksheet

Course Planning Worksheet

Instructor(s): Christopher Smith Course: Technologies for Information Services

Course Goal(s): Students should acquire a knowledge and appreciation of computer hardware, software, and information systems for the provision of information services.

Learning Objectives	Activities (practice and feedback)	Assessments
Discuss the fundamental issues related to the use of Information Technology, including their ethical dimensions, the requirements of dealing with rapid technological change, and the necessity for their application to newly emerging contexts. • Discuss a specific issue, using relation concepts and examples consistent with the course readings and lectures to support responses. • Explain the focus of the Information Technology profession on the user's needs, as compared to the Computer Science and Business perspectives. • Discuss the implications of technological convergence of computing and telecommunications.	Post to whole and/or work group threaded discussion in response to posted questions. Students will receive feedback to their postings from the instructor and other students.	Participation expected for every week's discussion; participation points awarded for responding and log-ins.

Your Own Course Planning Worksheet

For an electronic, expandable Course Planning Worksheet, go to: http://ctl.fsu.edu/explore/bestpractices/docs/CoursePlanningWorksheet.doc

This worksheet will help you better align course objectives with your instruction and to plan assessments related to what your students should learn.

Resources

Andrews, J. (1982). *Teaching assistants: A handbook of teaching ideas*. San Diego, CA: University of California, San Diego, TA Development Program.

Related Chapters

Chapter 3
Creating a Syllabus outlines the many uses of a syllabus, including assistance in determining the learning objectives.

Chapter 8
Using Active Learning in the Classroom discusses methods of active learning that may be chosen to align with learning objectives.

Chapter 9
Instructional Media: Chalkboards to Video provides guidance on how to choose media.

Chapter 14
Improving Your Teaching with Feedback and,

Chapter 12
Testing and Assessment Issues provide guidance on how to develop assessment of learning.

Chapter 3 — Creating a Syllabus

Florida State University requires all courses to have an accompanying syllabus that is distributed at the beginning of the semester. Here, we outline the many uses of a syllabus, which serves as a window into your course plan; provides suggestions for constructing an organized and complete syllabus; and gives checklists and examples for writing your syllabus, including University policy and rule statements.

- Syllabus Considerations
- Uses for a Syllabus
- Syllabus Template
- Syllabus Checklist
- Examples for Writing Policy and Rule Statements
- Tips on Writing Your Syllabus
- Sample Syllabus
- Resources for Course Design, Objectives, and Syllabus

Syllabus Considerations

A syllabus is a basis for a common understanding between instructor and student. Some points to consider as you prepare your syllabus:

A syllabus assures students that certain activities, a grading system, with evaluation (grading) standards, etc., will occur during the semester.

Syllabi should be written to cover the worst-case situation; requirements can be relaxed but not made more restrictive. Let the students know the expectations that are required for the class on the first day.

If you make a change from the syllabus, even at student request, make it in writing, and obtain signed consent of the students, especially if it is to the disadvantage of the student.

End each syllabus with a caveat to protect you, your department, and the University if changes in the syllabus must be made once your course is underway.

Example

"The above schedule and procedures in this course are subject to change in the event of extenuating circumstances."

Uses for a Syllabus

- **Aids the instructor in course design and development.**
  - ◊ Provides the framework for the course.
  - ◊ Helps determine course content.
  - ◊ Helps organize and structure course material.
  - ◊ Helps pace the course.
  - ◊ Serves as an indicator of how well the course is going.
  - ◊ Clarifies course goals and objectives and strategies for achieving them.
- **Lists general administrative and logistical information.**
  - ◊ Provides information on the professor, the course, and course prerequisites.
  - ◊ Schedules dates and meeting times.
  - ◊ Identifies meeting places.
  - ◊ Lists required and recommended textbooks and materials and where to find them.
  - ◊ Provides laboratory information.
- **Delineates policies and expectations.**
  - ◊ Establishes course requirements, general policies (attendance, class participation, late assignments, missed work) and guidelines for student performance (grading policies).
  - ◊ Makes explicit the relationship between requirements, performance, and the grade received.
- **Presents an overview of course content.**
  - ◊ Describes course content, perspective, goals, and learning outcomes.
  - ◊ Includes course scope, coverage and sequence, course structure and organization, goals and mechanisms for meeting them.
  - ◊ Explains how course content fits within the context of the discipline, careers, or life-long learning.
- **Provides information on schedules, assignments, and exams.**
  - ◊ Gives the specific course topics, when these topics will be covered, and information on assignments and exams.
  - ◊ Includes class schedules, topic lists or outlines, course assignments and due dates, and exam dates and coverage.

- **Influences student attitudes and increases motivation.**
  - ◊ Helps orient students to the course and helps alleviate their anxiety about the unknown.
  - ◊ Begins to establish a collegial tone and a non-threatening environment.
  - ◊ Conveys enthusiasm for the subject and sparks student interest and motivation.
  - ◊ Indicates that the goals are attainable yet establishes the intellectual challenge.
  - ◊ Lets students know what they can expect from the course and the instructor.
  - ◊ Sets a tone of support for learning.
- **Serves as a starting point for mutual discussion.**
  - ◊ Serves as a framework for mutual (professor and students) setting of goals and expectations, not as a lock into a rigid schedule.
  - ◊ Doesn't restrict students' freedom to learn.
- **Serves as a study guide/source of assistance for students.**
  - ◊ Guides students through the term and helps them take responsibility for their own learning.
  - ◊ Helps students prepare for classes, exams, and readings.
  - ◊ Helps them organize/synthesize course material.
  - ◊ Guides them through the course/readings.
  - ◊ Serves as pre-lecture/pre-discussion guide.
  - ◊ Helps them assess their progress throughout the term.
- **Meets departmental or administrative needs and requirements.**
  - ◊ Provides information about the course to the department, college, accrediting panels, or others.

Excerpted from Hammons, J. O., & Shock, J. R. (1994). The course syllabus reexamined. *Journal of Staff, Professional, and Organizational Development*, 12, 5-17.

Suggestion

On the first day of class, it is important to provide each student with your syllabus and review the points. Do not rely on students reading and understanding it on their own. Make sure that all students' questions are answered, and that all points of potential misunderstanding are cleared up. Once the course has started, reinforce syllabus content by referring to it in class.

Syllabus Template

A Syllabus Checklist [pdf doc] developed at Florida State University is provided in the next section with brief discussions of its elements.

Syllabus Checklist

The course syllabus…should be a document that captures the scope of the discipline and identifies the contribution of the course to that discipline.

Larry Abele
April 13, 2001

- Course Information
  - Course Name, Number, and Section
  - Class Meeting Time
  - Class Meeting Place
- Contact Information
  - Your Name and Title
  - Office Number/Building
  - Your Office Hours (both asynchronous and synchronous)
  - Office Phone and Fax Number
  - E-mail Address
  - Class E-mail Address
  - Information about your graduate assistant if you have one
- Material
  - Required Readings/Texts
  - Suggested Readings
  - E-mail Account and Other Instructional Technologies
  - Course Packs
  - Other Materials

- Course Description
  - Goal/Rationale of the Course
    - How the course will benefit the student; how the course relates to the content, primary concepts and principles of the discipline (where it fits into the overall intellectual area)
    - Type of knowledge and abilities that will be emphasized
    - How and why the course is organized in a particular sequence
  - Learning Objectives ["Approved written objectives of each course" and course outlines to students. University policy requires that an outline of the course contents be distributed at the beginning of the semester along with the written objectives. The evaluation of each instructor's teaching effectiveness will begin with the approved written objectives of the instructor's course.]
    - What the students will gain from your course
    - Why you chose these objectives as the most important skills/knowledge (It is helpful to include objectives for each of the class meetings or topics.)
- Teaching Philosophy – What is your approach for teaching this course? What do you think students should do to best benefit from the course? You may include your expected teaching methods and a statement regarding students' responsibility for learning and your responsibilities as their instructor.
- Student Responsibilities
  - Participation
  - Homework
  - Other Daily Responsibilities
  - Projects, including information on group processes
  - Tests/Exams
- Course Content and Outline (may be in the form of a course calendar)
  - Class Meeting Dates
  - Holidays/Other Non-meeting Dates
  - Major Topics
  - Due Dates for Readings, Assignments, Tests, Projects, etc.
- Evaluation (Grading) Standards and Method — A clear explanation of evaluation, including a clear statement on the assessment process and measurements. Be explicit! You may include format, number, weight for quizzes and exams, descriptions of papers and projects, as well as how they well be assessed and the overall grading scale and standards.
  - Resources
  - Web-based
  - Labs
  - Study Groups/Halls
  - Other Types of Help

- Essential Policy Information (Accompanying each item should be a statement on how each will impact grades.)
  - Attendance/Lateness Policy
  - Policy for Late Work
  - Policy for Missed Tests
  - Policy for Extra Credit
  - Copyright Statement [Suggested language]:
    Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act.

  - Florida State Academic Honor Policy—[The Faculty Senate suggests]:
    The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "be honest and truthful and…[to] strive for personal and institutional integrity at Florida State University" (Academic Honor Policy).

- ADA Policy: [Suggested language from the Faculty Senate]:
  AMERICANS WITH DISABILITIES ACT:
  Students with disabilities needing academic accommodation should:
  (1)Register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class. This syllabus and other class materials are available in alternative format upon request.

  For more information about services available to FSU students with disabilities, contact:

  Student Disability Resource Center
  874 Tradition Way
  108 Student Services Building
  Florida State University
  Tallahassee, FL 32306-4167
  (850) 644-9566 (voice)
  (850) 644-8504 (TDD)
  sdrc@admin.fsu.edu
  http://www.disabilitycenter.fsu.edu

- Syllabus Change Policy: [Suggested language from the Faculty Senate]
  "Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice."

Examples for Writing Policy and Rule Statements

Attendance Policy

If attendance is important, state why it is important, how many absences are allowable, and what effect, if any, attendance has on the final grade.

FSU's Class Attendance Policy
(from the Faculty Handbook)

The instructor decides what effect unexcused absences will have on grades and will explain class attendance and grading policies in writing at the beginning of each semester. Instructors must accommodate absences due to documented illness, deaths in the immediate family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities **and must do so in a way that does not penalize students who have a valid excuse.** Consideration also should be given to students whose dependent children experience serious illness. All students are expected to abide by this class attendance policy. Students must also provide, when possible, advance notice of absences to the instructor as soon as possible following the illness or event that led to an absence. Regardless of whether an absence is excused or unexcused, the student is responsible for making up all work that is missed. University-wide policy requires all students to attend the first class meeting of all classes for which they are registered.

Students who do not attend the first class meeting of a course for which they are registered will be dropped from the course by the academic department that offers the course. In order to enforce this policy, instructors are required to take attendance at the first class meeting and report absences to the appropriate person in their department or school/college.

The faculty member is expected to check attendance in all classes. The faculty member is expected to make some allowance for absence occasioned by illness, by trips, for the University, or by authorized field trips. Any arrangement to make up work because of class absence is the responsibility of the student. The effect of absence upon grades in determined by the instructor; at the beginning of the term the faculty member explains the grading policy to the students. For further information consult the Faculty Handbook.

Example 1

Attendance Points

To achieve the goals of this course successfully, a high rate of attendance is necessary. Therefore, points will be awarded accordingly.

Classes Missed	Points
0	+20
1	+15
2	0
3	-5
4	-10
5	-15
6	-20
7	-30
8	-50
9	-100

All requests for excused absences must be in writing with supporting documentation. The request should include: date of absence, reason for absence, date of submission, signature. Decision to excuse absences will rest with the instructor.

Example 2

Attendance: There is no formal policy; however, it is doubtful that you will pass with more than four absences. Attendance will be recorded daily in case an advisor or dean inquires about a student. If you miss a class YOU ARE RESPONSIBLE for making up missed work. I will answer specific questions, but I will not re-teach any lesson.

Class Participation

Some instructors feel strongly that students should not only attend class, but also should actively participate. If you expect students to participate in class, state this in your syllabus, indicate if it will count in the final grade (and how much weight it will have), and state what constitutes "good" or "acceptable" class participation.

Example

Class participation is an important element of the course. The quality of participation, which is a reflection of careful reading of cases, detailed quantitative analysis where necessary, thoughtful reflection, and clear and concise comments, is extremely important. It is also important to build on each other's comments, which means attentive listening. Class participation will be judged on the basis of quality and consistency of effort on a daily basis. Attendance is not participation. Each student can ascertain the adequacy of his or her class participation by occasional discussion with the instructor.

Late Assignment Policies

What is your policy on late assignments? Do you accept them? Do you downgrade them? How much are they marked down? How late can these assignments be before the student gets an F?

Example

Grades of late papers will be penalized up to one full grade down for every 2 weeks (10 weekdays) they are late. For example, an A paper (due March 13) handed in March 20 will be given an A-/B+ or if it were handed in March 27 will be given a B. Papers will not be accepted more than two weeks late.

Missed Work and/or Exams

What is your policy on missed class work, quizzes, or exams? What excuse(s), if any, will you accept? Can the student make up the missed work? How much will missed work affect their final grade?

Examples

Quizzes: Three quizzes will be given during the quarter. Dates are Wednesday, April 30, Wednesday, May 21, and Wednesday, June 11. Should you miss a quiz because of an excused absence, you have until the next class meeting to take it. Make-ups will not be allowed for unexcused absences. The average of quizzes used in final grade calculation will be calculated from the quizzes taken.

Exams: There will be three exams (including the final). All three exams will be weighted equally.

Make-up Exams: Make-up exams are discouraged. If you miss an exam you MUST leave me a message, BY THE TIME OF THE EXAM, saying you will not be there and why. Leave your phone number(s) and times you can be reached. Make-up exams will be given only if a) a physician's note says that you were unable to take the exam, or b) the Dean's office requests a make-up. Otherwise, you will be given a 0 (zero) on the exam.

Cheating and Plagiarism

What are your policies on cheating and/or plagiarism? What constitutes cheating or plagiarism? Do you have a policy on group work and multiple submissions?

A sample of Academic Honor Violations outlined in FSU's Academic Honor Policy:

- **Plagiarism** - Using another's work from print, web, or other sources without acknowledging the source; quoting from a source without citation; using facts, figures, graphs, charts or information without acknowledgement of the source.
- **Cheating** - Copying from another student's paper or receiving unauthorized assistance during a quiz, test or examination; using books, notes or other devices (e.g., calculators, cell phones, or computers) when these are not authorized ; procuring without authorization a copy of or information about an examination before the scheduled exercise; unauthorized collaboration on exams.
- **Unauthorized Group Work** - Working with another person or persons on any activity that is intended to be individual work, where such collaboration has not been specifically authorized by the instructor.
- **Multiple Submission** - Submitting the same paper for credit in two courses without instructor permission; making minor revisions in a credited paper or report (including oral presentations) and submitting it again as if it were new work. It is each instructor's responsibility to make expectations regarding incorporation of existing academic work into new assignments clear to the student in writing by the time assignments are given.

After including the statement on FSU's Academic Honor Policy in your syllabus, it might be beneficial to state your beliefs about what you consider to be cheating or plagiarism.

Example 1

Dr. Bell* identifies three common types of plagiarism:

1. Submitting a paper that was written by someone other than you.

2. Submitting a paper in which you use the ideas of another but do not footnote that source and/or do not place that source in your list of references.

3. Submitting a paper in which you use the exact words of a source and do not put the words within quotation marks, footnote and place the source in your list of references. Even if you footnote and place the source in your list of references, the omission of quotation marks is a type of plagiarism. As a practical guideline, use quotation marks when quoting more than four consecutive words.

*From Bell, J. E. (1974). *Independent study and self-directed learning in psychology* (pp. 18-19). Columbia, MD: Howard Community College. [Professor, Nursing]

Example 2

Students are encouraged to discuss among themselves the assigned case. But, collaboration must not extend to the writing of the report or to the preparation of the exhibits. Similar outlines, organization, exhibits, or phrasing in the written reports of two or more students will be regarded as evidence of excessive collaboration and be dealt with in accordance with the rules of the University regarding academic dishonesty.

Example 3

All work must be original to you and done for the first time this semester for this class. Works or parts of works previously submitted for credit in another class are not permitted. Doing so constitutes a violation of the University's Academic Honor Policy.

Course Requirements and Grading Policy

Course requirements and grading policy are often (although not always) treated together in the syllabus.

Example

The required work for the course will consist of:

- Four homework problem sets covering input-output/SAM, linear programming, CGE modeling, and project appraisal (40% weight)
- An article review assignment (20% weight)
- A final exam covering lectures and required readings (40% weight)
- Optional extra credit assignments will also be available. Class attendance and participation will be taken into account in borderline grading situations.

Adapted from Hammons, J. O., & Shock, J. R. (1994). *The course syllabus reexamined. Journal of Staff, Professional, and Organizational Development*, 12 (1), 5-17.

Tips on Writing Your Syllabus

- Be as brief as possible. Use short sentences or lists or outlines. Don't overwhelm your students with lengthy prose – the syllabus should merely serve as a reference document and reminder to students.
- Organize the information. Outlines, tree charts, and various diagrams can help you plan before you actually write the text of your syllabus. A logical structure of the syllabus can help you make sure you have covered every important topic and help ensure that students will be able to identify important information more easily.
- Be friendly. Use everyday words and address the student in the syllabus. For example, use "you," "we," and "I," rather than "the student," "your professor," or "the instructor."
- Consider the visual organization of your information as it appears on the sheet of paper. Graphic design is not only a matter of aesthetic appeal; it has a strong bearing on the readability of any document.
- Use headings so students can easily scan it to find pertinent information.

- Highlight important information. Use capital letters, italics, and bold type or underlining. However, use them sparingly or the purpose will be lost (the student will ignore it). Also, long strings of capitalized text are less legible than using upper and lower case. The logical structure of the syllabus helps ensure that you have covered every important topic and, in the end, helps ensure that students will be able to identify important information more easily.
    - Use plenty of white space. Do not put too much text on one page.
    - Be neat. Avoid messiness, typos, etc. (particularly when you do not accept messiness and typos from your students).

Sample Syllabus

Course Information: Syllabus
HUM 3321: Multicultural Film and 20th Century Culture (Fall 2006)
214 LSB
MWF 9:05-9:55

Syllabus Change Policy:

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

Contact Information
Annette Jones, Ph.D.
C3500 UCC
(850) 644-6141
hajones@campus.fsu.edu

Office Hours: Tuesday and Thursday 9:00-10:00 a.m. or almost anytime by appointment

Materials:

- John Belton, American Cinema/American Culture 2nd ed. NY: McGraw-Hill, 2005. ISBN: 0-07-288627-7
- Maricarmen Martinez, Multicultural Film: An Anthology (Fall 2006)

Course Description:

- The student will benefit from this course by learning a matrix of movie history, movie genres, and approaches to multiculturalism by which to judge the movies, cultural representation and the cultural experiences of life. The movies provide a window on middle and late 20th century cultures, which serve as comparisons and contrasts for culture in the 21st century.
- The ability to synthesize and analyze articles on culture and movies, and an ability to speak and write about movies and culture will be necessary.
- The course is arranged chronologically by appearance of movies and genres of film, which characterized discrete time periods in 20th and 21st century cinema history.

Learning Objectives: The learner will be able to…

- Analyze how Americans look to race, class, gender and sexuality as formulas by which to judge others through both classroom discussions and various online/writing assignments.
- Identify stereotypes of race, class, gender and sexuality and then explain the harm in such stereotypes through both classroom discussions and the writing assignments required for this class.
- Evaluate the extent to which movies conform to or break the mold of their genres by watching various film clips in class and then analyzing them in relation to American Cinema/American Culture.
- Evaluate the different ways that Americans have become divided by race, class, gender, and sexuality, and possessed with this knowledge, be able to propose solutions to such divisions. Students will have the chance to explain their proposed solutions in class, online, and in several writing assignments throughout the semester.
- Recall the information presented in the articles from the film reader and the assigned chapters from the Belton book through take home quizzes and both the midterm and final exams.

Goal/Rationale for the course:

This course is meant to raise the conscious level for all students of film and culture to acknowledge film as a mirror of our culture as well as affecting our culture. We shaped our movies by who we were, and in turn they have shaped us to be who we have become. By watching movies with a better understanding of their biases and prejudices we may confront the stereotypes in our culture. Students who attend all the classes, watch all the movies, read the text and articles diligently, discuss in the classroom or on Blackboard the salient points raised, and write clearly their analyses and syntheses will do well in this course. The learners' responsibilities include an open-minded approach to new ideas about race, class, gender, and sexuality. Class and Blackboard discussions will be conducted with decorum and the learners will maintain a demeanor that is in harmony with a non-threatening exploration of sensitive issues. Writings and essays for the course will be the students' own work reflecting their best effort and considered thought.

Student Responsibilities

- **Participation:** Learners are expected to be present and on time for all classes. Learning is by classroom and Blackboard discussions and students are expected to be full partners in this process. Learners are also expected to be attentive to the Blackboard site's announcements and assignments on a continuing basis. Checking with the Blackboard site at least three times each week will be necessary. Learning is by classroom lecture/discussion and/or online discussion forums. There will be some online group work and students are expected to be full partners in this process.
- **Homework:** Assignments will be given requiring the students' own writing and responses to articles, films, and outside stimuli brought into the course for the purpose of student responses. The amount of writing is required to be a predetermined minimal amount (3333 words) set by university policy (Gordon rule).
- **Other daily responsibilities:** Learners will be encouraged to enrich their learning environment by bringing into course discussions items from newspapers, radio reports, television coverage, the latest films, and anecdotes from their own life experiences.
- **Projects:** There may be frequent discussion forums online that will be carried into the classroom. They must be worked on in advance. There will be a paper on a film not seen or discussed in the course, but reviewed according to the parameters established in the course.
- **Tests/Exams:** There will be a mid-term and a final (non-cumulative) exam. There will also be weekly take home quizzes to test such items as whether articles have been read with care, films seen in their entirety, etc.

Course Content & Outline

August 28-September 1
Introduction to Multicultural Film

Articles: Introduction: The Multicultural Nation
(1) Langston Hughes, "Little Song"
(2) A Conceptual Framework for Understanding Race, Class, Gender, and Sexuality
(3) Ideology and Ideological State Apparatuses
Belton: (1) The Emergence of the Cinema as an Institution

September 05-08
America Divided in Film
*****Film: North Country**

Articles: (4) Men's Behavior and Women's Interest in Blue-Collar Jobs
Belton: (2) Classical Hollywood Cinema: Narration
(3) Classical Hollywood Cinema: Style

September 11-15
Film and Stereotypes
*****Film: But I'm a Cheerleader**

Articles: (5) Stereotypes: Conceptual and Normative Considerations
(6) Queer and Now
(7) The Silent Minority: Rethinking Our Commitment to Gay and Lesbian Youth
Belton: (4) The Studio System

September 18-22
The Western Film
*****Film: Red River**

Articles: (8) A New Vision of Masculinity
(9) Cowboys and Free Markets: Post-World War II Westerns and Hegemony
Belton: (11) The Making of the West

September 25-29
The Screwball Comedy Film
*****Film: Woman of the Year**

Articles: (10) Fast Talking Dames
(11) 'Miss Hepburn is Humanized': The Star Persona of Katharine Hepburn
Belton: (8) American Comedy

October 02-06
The War Film
*****Film: Jarhead**

Articles:	(12) "Now a Major Motion Picture": War Films and Hollywood's New Patriotism
	(13) The Psychohistory of Warfare: The Co-Evolution of Culture, Psyche and Enemy
Belton:	(9) War and Cinema

October 09-13
Film Noir
*****Film: A Touch of Evil**

Articles:	(14) Film Noir and the American Dream: The Dark Side of the Enlightenment
	(15) Women in Film Noir
Belton:	(10) Film Noir: Somewhere in the Night

October 16-20
Review and Midterm Exam
The midterm exam will be on Friday, October 20th.

October 23-27
The African-American Film
*****Film: Baadasssss!**

Articles:	(16) No Accident: From Black Power to Black Box Office
	(17) Making It: A Conversation with Melvin Van Peebles
Belton:	(14) The 1960s: The Counterculture Strikes Back

October 30-November 03
Film and The Gaze
*****Film: The Girl Next Door**

Articles:	(18) Objectification
	(19) 'The Girl Next Door'" A Teen Romantic Comedy Formula Disguises the Darker Implications Underneath
Belton:	(5) The Star System

November 06-10
Essay Due Monday, November 6th
Film and Class
*****Film: Office Space**
Articles: (20) The Perversion of Human Needs
(21) The Destructive Power of Money
Belton: (12) Hollywood and the Cold War

November 13-17
Film and Race
*****Film: X-Men 2: X-Men United**
Articles: (22) The Spectacle of the 'Other'
(23) White Privilege: Unpacking the Invisible Knapsack
(24) White Privilege Shapes the U.S.
(25) Global Capitalism: What's Race Got to Do with It?
Belton: (15) The Film School Generation

November 20-24
Outline for Final Paper is due Monday, November 20.

November 28-December 02
Film and Sexuality
*****Film: Brokeback Mountain**
Articles: (26) I'll Show You Mine, If You'll Show Me Yours: Gay Men, Masculinity Research, Men's Studies, and Sex
(27) Capitalism and Gay Identity
Belton: (16) Into the Twenty-First Century

December 04-08
America Reunited in Film
*****Film: Big Eden**
Articles: (28) All Colors Flow into Rainbows and Nooses: The Struggle to Define Academic Multiculturalism
(29) Treat Students Right by Valuing Their Diversity
Belton: (13) Hollywood in the Age of Television

Final Paper is due Friday, December 8th (the last day of class)

Final Exam: Thursday, December 14th at 10:00 a.m.

Final Exams/Essays

Grading Method: Evaluation is based mainly on essay writing and therefore a competency in such writing is expected. Students' writing will be judged by its clarity and precision in manuscript execution (all essays must be word-processed and submitted digitally) with evidence of proofreading before submission; correct spelling, punctuation, and grammar; focus on a point, topic, or subject that is congruent with the scope of the assignment; appropriate synthesis and analysis; logical progression of ideas, arguments, counter arguments, and conclusions; and assertions and statements supported by evidence and discussion.

All writing assignments will be submitted to safeassign.com. All work must be original to you and done for the first time this semester for this class.

Grading Scale:

93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
59 and below	F

Assessments:

- The final paper (4 pages) counts for 20% of the grade
- The midterm exam counts for 25% of the grade
- The final exam counts for 25% of the grade
- Quizzes, Discussion Board assignments, etc., count for 20% of the grade
- The essay (500 words) counts for 10% of the grade

Resources:

The films will be shown at the Student Life Building on Mondays. Check the detailed schedule at their website:

http://movies.fsu.edu

You must be able to attend one of these showings in order to take this course. Some of our films may be available at the local movie rental stores, but the rentals will usually be at a premium price.

Printed text and reader are referenced above.

Anecdotal evidences from life (films, TV, radio, newspapers, magazines, personal experiences, etc.) are welcomed and encouraged to be brought into the discourse.

Essential Policy Information:

Gordon Rule Requirement: Since this course is a Gordon Rule class, students must obtain a C- or better in order to pass the Gordon Rule requirement. Gordon rule requirements mandate a total writing assignment of approximately 3,333 words. Failure of the student to turn in the writing assignment will result in a final grade no higher than D+. For further information on these university policies, refer to the handbook at http://deanofstudents.fsu.edu/policy.html

Attendance/lateness policy:

Unexcused Absences:

1. A student may miss one week's worth of work without penalty.
2. For any part of the second week of missed classes we will reduce the grade by one stage, e.g., B- > C+.
3. For any part of the third week of missed classes we will reduce the grade by one additional stage, e.g., B+ > B-.
4. For any part of the fourth week of missed classes we will follow the university guidelines on attendance and give no credit, i.e., F.

Excused absences do not count against the student's attendance. (Excused absences must be negotiated with the instructor, and may be for such reasons as funerals, visits to the doctor, job interviews, or verifiable transportation emergencies.)

Policy for missed tests:

All students will be expected to be present for the exams scheduled in the classroom. Only after the exam has been missed will there be a negotiation for how to make up the exam. Why the exam was missed will be a chief consideration in these matters.

Florida State Honor Code:

"The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of student's academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University."

Academic Honor Policy

ADA Policy:

"Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class."

For more information about services available to FSU students with disabilities contact the Student Disability Resource Center, 874 Traditions Way, 108 Student Services Building, Florida State University, Tallahassee, FL 32306-4167, (850) 644-9566 (voice), (850) 644-8504 (TDD), sdrc@admin.fsu.edu | http://www.disabilitycenter.fsu.edu

Resources for Course Design, Objectives, and Syllabus

Writing Objectives and Constructing Syllabi *Books/ Articles*

- Andrews, J. (1982). *Teaching assistants: A hand book of teaching ideas*. San Diego, CA: University of California, San Diego, TA Development Program.
- Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives*. New York: Longmans, Green.
- Briggs, L. J., Gustafson, K. L., & Tillman, M. H. (Eds.). (1991). *Instructional design: Principles and applications* (2nd ed.). Englewood Cliffs, NJ: Educational Technology Publications.
- Day, R. S. (1980). Teaching from notes: Some cognitive consequences. *New Directions for Teaching and Learning,* No. 2. San Francisco: Jossey-Bass.
- Diamond, R. M. (1989). *Designing and improving courses and curricula in higher education*. San Francisco: Jossey-Bass.
- Erickson, S. C. (1984). *The essence of good teaching*. San Francisco: Jossey-Bass.
- Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design*. New York: Harcourt Brace.
- Kemp, J. (1985). *The instructional design model*. New York: Harper & Row.
- Kemp, J. Morrison, G., & Ross, S. (1998). *Designing effective instruction* (2nd ed.). Upper Saddle River, NJ: Prentice-Hall.
- McKeachie, W. J. (1986). *Teaching tips: A guide book for the beginning college teacher*. Lexington, MA: D.C. Heath.
- Reiser, R. A., & Dick, W. (1996). *Instructional planning: A guide for teachers* (2nd ed.). Boston: Allyn and Bacon.
- The First Day of Class: Advice and Ideas. (1989, August/September). *The Teaching Professor,* 3, (7), 1-2.

FSU Websites

- Office of Distance Learning
  http://odl.fsu.edu
- Office of the Provost and Academic Affairs
  http://provost.fsu.edu
- Program for Instructional Excellence
  http://pie.fsu.edu
- Expectations, Annual Evaluations, and Promotion and Tenure Online Document - Abele, L. G. (2001, April). Florida State University, Expectations, Annual Evaluations and Promotion and Tenure: A follow up to promotion and tenure document. Retrieved April 2002 from the World Wide Web

Writing Objectives

Books/Articles

- Gronlund, N. E. (1991). *How to write and use instructional objectives* (4th ed.). New York: Macmillan.
- Mager, R. F. (1984). *Preparing instructional objectives* (2nd ed.). Belmont, CA: Lake Publishing.

Constructing Syllabi

Books/Articles

- Grunert, J. (1997). *The course syllabus: A learning-centered approach*. Boston, MA: Anker Publishing.
- Von Harrison, G., & Derr, K. (1977). *Writing a student syllabus*. Provo, UT: Brigham Young University.
- Wilkerson, L., & McKnight, R. T. (1978). *Writing a course syllabus: A self-study packet for college teachers*. [Copies may be acquired by writing: LuAnn Wilkerson, Ed.D., Director Faculty Development New Pathway Project Harvard Medical School, 25 Shattuck St. Boston, MA 02115]

II. Course Planning - Management

Chapter 4 - Knowing Your Students

If there can be one characterization of FSU students, it is their diversity. Race, religion, disability, sexual preference, academic entry level, aptitude, socio-economic status, age, and marital status are all factors that impact how a student learns. Your expectations, goals, and teaching style are based on your experiences, which might be quite different from those of your students. Understanding the various learning preferences of students and the differences between you and your students and among your students can help you plan your course to take advantage of the diverse population at FSU rather than letting it be an obstacle to student learning.

- **The FSU Student: A Brief Sketch**
- **Diversity and the Academic Culture**
- **Teaching and Learning Styles**
- **Other Factors Affecting Student Learning**
- **Resources on Diversity and Teaching and Learning Styles**

The FSU Student: A Brief Sketch

Distribution by Gender		
	Number	Percentage
Male	17,216	43.4%
Female	22,436	56.6%
Total	39,652	100.0%

Distribution by Race		
	Number	Percentage
White	28,081	70.8%
Black	4,490	11.3%
Hispanic	3,758	9.5%
Asian	1,176	3.0%
Native American	148	0.4%
Non-resident Alien	1,349	3.4%
Not Reported	650	1.6%
Total	39,652	100.0%

From The Florida State University Fact Sheet

Diversity and the Academic Culture

Aspects of an instructor's personal identity such as race, religion, socio-economic background, and learning style are important as the teacher tries to relate to students and instill in them an interest in a field. Good instructors not only convey a body of knowledge to their students, but they enable learning by connecting their own experience with their students' experiences of the world.

You bring your own physical appearance and culture into the class at the same time your students do. Students who perceive you as belonging to a particular racial or ethnic group and who then draw initial conclusions from that classification can affect the class atmosphere from the first day either negatively or positively.

One assistant professor at FSU faced with perceived diversity issues in the classroom put it this way:

> An issue that concerns me greatly has to do with issues of gender and race/ethnicity in student-teacher interaction. Although some of my students have shown respect (and even admiration) toward me as a professor and as a person, other students have challenged my authority and have openly questioned my knowledge. I wonder to what extent the combination of my gender and ethnicity colors students' perception of my teaching.

The best way to minimize the likelihood that your own perceived diversity will affect student behavior is to establish a "safe" environment in which the class can discuss diversity. Even in a large lecture class, a safe environment can be encouraged through a statement in your syllabus about your awareness of diversity issues and your desire for tolerance in the classroom.

Invisible Diversity

Invisible differences such as political opinion, sexual orientation, teaching and learning styles, regionalism, class, family history, and religion impact the learning environment. Being aware that there are many issues not immediately apparent that influence how students respond to the course materials and to you as an instructor will help you avoid inadvertently alienating students.

The assumption that diversity has only to do with the students in the classroom can make it hard for an instructor to recognize personal hidden assumptions. This may in turn hinder proper learning in class, as the instructor unwittingly slants the choice of reading materials or the direction and form of class discussions. Any choice of class materials presupposes an exclusion of other materials; any organization of those materials into a coherent syllabus involves decisions about which elements to emphasize - being aware of your own presuppositions and assumptions will help you avoid the kinds of slant in your class that can alienate students or unnecessarily strain your relations with them.

The diversity in your classroom can serve as a stimulus for intellectual inquiry, both for you and for your students. Seen as an opportunity rather than as a handicap, the diversity of your class can facilitate the kinds of change that a university education is designed to promote. A motivated teacher can challenge hidden assumptions in the classroom, and provide equal and fair access for students from all walks of life.

Age: Widening or Closing the Gap

Younger instructors who are close in age to the average student sometimes fear they will fail to command attention and respect; however, most students respect instructors who come to class well prepared and behave respectfully toward students. The advantage of being close in age to your students is that you will have had the same cultural backgrounds in regard to politics, important events, art, music, and television.

Instructors who are four or more years older than their students, however, have the opposite situation. Initially, they are perhaps able to gain students' respect more quickly, but for ongoing rapport, which facilitates learning, it is important to be able to speak to your students about their culture and put the major topics of your field into the context of their lives. Here, you might take the opportunity to become a student of your students by educating yourself about their experiences of the world. Some knowledge of current interests can mean the difference between being able to teach and to interest them in your field or presenting them with material that seems irrelevant.

Learning about your students' interests is relatively easy.

- Read the FSUView to keep in touch with local events that are student oriented.
- Engage students in discussions about what music they listen to, what magazines they read, or what shows they watch on TV.
- View a television show or film and try to find ways to incorporate its content into your class.

Suggestions

- In a small class, an effective way to learn about your students is to require a 30-60 minute office visit for each student, near the beginning of the term.
- Establish an e-mail list that provides students with an opportunity to communicate both with you and other students in the class. In a large class, occasionally ask a select group of students to answer anonymously a question about the course and leave it for you on their way out. You can choose the students based upon the last digit of their FSU ID. Eventually, you will have solicited feedback from the entire class.
- You do not need to make the students' interests the focus of your class discussions, but your understanding of their interests and occasionally incorporating those interests into the course material can make your material relevant to their lives and be a spark that ignites the students' enthusiasm for your discipline.

Teaching and Learning Styles

There have been many attempts at defining different types of teaching and learning styles. The Myers Briggs Type Indicator represents one common set of styles.

Without getting into the details of personality-type inventories, or their usefulness to educators, suffice it to say that there are individual differences represented by personality types. Two personality types you might recognize are the introverted and the extroverted.

The value in using personality-type questionnaires may be in realizing that there are differences among people, and so we cannot expect everyone to react in the same way, like the same things, participate with the same enthusiasm, etc., while at the same time recognizing that each one is perfectly capable of learning the knowledge and content of the course.

Some educators, such as Felder (1993), have made a career of studying how teachers teach and how students learn. One set of characteristics he highlights is the difference between inductive learners and deductive learners. Inductive learners prefer to begin with data or experience, and infer the principles behind them. Deductive learners prefer to start with abstractions or principles and deduce the data. He states that most college classes are taught in a deductive manner, because experienced professors are deductive learners. However, he says, most students think inductively.

No student learns in just one way or another, and one of the goals of education is to expand students' ways of thinking. However, it is helpful to remember that learning styles differ, and that your students may not learn in the same way you do. Thinking about multiple ways to help students learn the knowledge and skills in your class can go a long way to meeting the needs of students with different learning styles.

Other Factors Affecting Student Learning

John Carroll, an Educational Psychologist and Language Professor, researched five variables that affected language learning:

- Perseverance
- Time Allowed
- Quality of Instruction
- Aptitude
- General Ability to Learn

All these factors, he said, determined one of two things: the amount of time a student needed to learn something, or the amount of time they spent in learning. Carroll represented the relationship among the variables in a formula.

$$\text{Degree of Learning} = \mathbf{f}\ \frac{\text{Time Spent}}{\text{Time Needed}}$$

Time Spent was affected by the student's perseverance or motivation and the time allowed; and the Time Needed was affected by the other three variables: Aptitude, Quality of Instruction, and the student's General Ability. Improving learning, as Carroll sees it, involves increasing the time students spend, or decreasing the time they need. Obviously, some of these variables are more under control of the instructor than others. It isn't likely that an instructor is going to increase a student's aptitude for a subject by what he does, for instance, since aptitude is a function of the student's past learning.

What can we take from Carroll that might help us when we are looking at student characteristics?

- Some students are going to find your subject easier than others because some will already know more about it (i.e., they have an aptitude for what you are teaching).

- Some students will have better learning skills than others, represented by memorization skills, study skills, or other general abilities related to learning that they have acquired or developed over the years.
- You can reduce the time students will need by improving the quality of your instruction (only one of five variables), and making resources more available (time allowed). (Technology can help here as it not only makes content available, but also increases the opportunity for communication with the instructor and other learners.)
- It might be possible to increase the learner's motivation to spend more time on course material by making the curriculum relevant and satisfying.

In summary, learning is a complex process affected by many different personality and environmental factors. Being aware of these factors, and considering them during the course planning process, can go a long way in making instruction more effective.

Resources on Diversity and Teaching and Learning Styles

Books/Articles

- Carroll, J. (1963). A model of school learning. *Teachers College Record*, 64, 723-733.
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- Howe, N. & Strauss, W. (2003). *Millenials go to college: Strategies for a new generation on campus.* American Association of Collegiate Registrars and Admission Officers and Life Course Associates.

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- Pheiffer, G., Holley, D., & Andrew, D. (2005). Developing thoughtful students: Using learning styles in an HE context. *Education & Training,* 47, 422-431.
- UNC-CH Center for Teaching and Learning. (1997). *Teaching for Inclusion*.
- Zinn, Howard. (1994). *You can't be neutral on a moving train*. Boston: Beacon Press.

Chapter 5 - Managing Students & the Classroom Climate

How you manage your students – and at times, yourself – can determine your success or failure in the classroom. This chapter helps you survive in the classroom – through behavioral suggestions, preparation guidelines, and common problems most instructors have encountered.

- **Typical Problems**
- **Some Survival Tips for the First Class Meeting**
- **Guidelines for Building Positive Classroom Climates**

Typical Problems

Here, we list a few typical problems that most instructors have experienced at some point in their teaching.

Class Attendance

What do you do if students do not attend class?

Contrary to any rumors you may hear, official University policy is:

> Students are expected to attend all of their scheduled University classes, and other University activities such as examinations, study halls, and tutorials, as determined by their departments and University faculty and staff. The University reserves the right to deal at any time with individual cases of nonattendance. The effect of absences upon grades is determined by the instructor. Arranging to make up work missed because of legitimate class absence is the responsibility of the student.
>
> *General Bulletin*

Depending upon the type of section, many instructors leave the question of attendance up to individual students. At the beginning of the semester, it is a good idea to inform students, in writing, of your attendance policy.

Related Chapter

Chapter 3
Creating a Syllabus, which gives examples for writing policy and rule statements.

If you require attendance, be certain to have a system for recording it and a policy to follow for those who are absent.

If you do not require attendance, it is still important to keep good attendance records. If a student comes to you because they are not passing your class, it is helpful to know the student's attendance record. Any guilty feelings you may have when a student fails can be relieved if you have recorded that they never came to class. Also, you should not feel that you must spend extra time with a student who wants to make up the work they missed due to unexcused, long absences.

Answering Questions

What if you do not know the answer to a student's question?

Check with the student to be sure you understand the question. Repeat the question and ask, "Is this what you are asking?" It is not unusual to misunderstand what a student is saying. In addition, students often have a hard time formulating a clear question, so it is entirely possible that what you heard was not easy to understand.

If an attempt at question clarification fails, ask, "Can someone else explain the question to me?" Or, ask the student to talk to you after class when you have more time.

Finally, give positive feedback – "That's a good question! Let me see what I can find and I'll get back to you," and then be sure to find an answer for the next class meeting or, if your course has a website, post the question and answer to the website.

What if a student asks for advice about problems beyond your responsibilities?

Students may ask you for advice about their social and personal as well as their academic problems. Many times, just being a sympathetic listener can help the student. You may have had several years of successfully juggling the academic and social aspects of life and genuinely can be of assistance.

Sometimes students come to you with academic or social problems that go beyond the scope of your professional or personal capabilities. When confronted with a student who seeks your help, be aware of your limitations. Occasionally, you and your colleagues will not know how to deal with a problem student. For these situations, the Student Counseling Center is an excellent resource. Referring students to the Center is often the biggest favor you can do for them. Remind them that information resulting from consultations with counselors is kept strictly confidential.

Instructor-Student Interactions

How friendly should you be with students?

Lack of friendliness or interest in students' performance is often cited as a major weakness of poor instructors. Some individuals, consciously or unconsciously, adopt a condescending or stay away attitude toward students. But the instructor plays an important role between the subject matter and the students. Learning is more than making information available. Interacting with the material and with an expert in the discipline is more likely to encourage student learning.

There are instances when instructors may be perceived as too friendly with students. To win students' admiration and friendship, instructors try to become "one of the guys or gals." If there is little social distance between you and your students, you may create uncomfortable situations. Trying to be a "buddy" is typically an inaccurate reflection of reality. First, you are not one of the students; you are their instructor who has legitimate authority over them. Second, it may not be easy for you to impartially evaluate a student who has become a friend. Finally, some students will never accept you as a friend; they see you only in your role as instructor and an evaluator.

While there is no stated University policy against dating a student, it is considered unprofessional to do so especially when the instructor has influence over a student's grades and academic performance. It is best to avoid potential dating situations by maintaining a strictly professional relationship with your students.

How can you manage the well-meaning but disruptive student?

Not all classroom disruptions are intentional. Providing an atmosphere conducive to learning for all students in the class is the responsibility of the instructor. Late arrivals, text messaging during lectures, inappropriate questions, and other distractions are all issues that can be addressed through policies set up at the beginning of the semester. When an issue arises, deal with it immediately and politely. If this does not work, ask the student to stay after class and bring up the topic then. Well-meaning students typically are unaware of the problems they have created and are happy to respond to your plea for assistance. The rest of the class also appreciates your recognizing and dealing with the problem judiciously and immediately. Often, such inappropriate behavior results from cultural differences.

How can you manage the student who is disruptive and not well meaning?

While such students are in the minority, they can cause a great deal of concern among new instructors and other students in the class. Such problem students are aware of their behavior and deliberately choose it. These students try to stretch the boundaries of what is appropriate by laughing with their friends when you or other students are talking, by reading newspapers or magazines in class, by taking every opportunity to publicly challenge or discredit you, or by acting rudely toward classmates. If you have not faced similar situations before, you may not be able to react appropriately at first. Usually, discussion with the student should be moved to your office. You do want to deal with the situation as soon as possible, but after you have thought about it. Avoid sarcasm or arguments in class, as these are also disruptive to the learning atmosphere that you want to foster.

No matter what, the responsibility for establishing and maintaining a good teaching/learning atmosphere rests with you. Do not tolerate disruptive behavior that interferes with either your instruction or the rights of other students. Do not hope the problem will go away by itself; it rarely does. Discuss such problems with your colleagues and deal with them as soon as possible.

Additional Support

If you experience any problems we have not addressed, feel free to avail yourself of other resources on campus – your own department or other campus organizations.

One of the greatest skills we learn in higher education is how to solve problems. If you would like to find out more about a particular instructional strategy or issue, contact the Office of Distance Learning.

Related Chapter

Chapter 15
For listings of academic and administrative support services, see **Support and Resources**.

Some Survival Tips for the First Class Meeting

The first few class meetings often set the tone for the remainder of the semester. With this in mind, have an organized plan. Know what you intend to say and do before you get in front of the class. Students appreciate sessions that are organized and have a sense of purpose. Remember, first impressions are being formed and sometimes those impressions color the class climate for the remainder of the semester.

Prior to Your First Meeting

- Locate and visit the classroom. This will eliminate the possibility of becoming lost and arriving late the first day. This inspection may influence future planning considerations, i.e., arrangement of furniture, whether groups can be formed easily, the possibility of using media, location of chalkboard or screens, need for requests for equipment.

On the First Day of Class

- Display to your students:
  - ◇ The course and section
  - ◇ Your name
- Introduce yourself and share something about yourself. You may wish to tell the students something about your academic background or professional interests, why you are teaching the course, some personal information that might help students become more relaxed. Approach this with creativity.
- You may find it easier to manage the classroom climate if you conduct a brief survey to collect background information on students, their prior knowledge/skills related to the course, and their expected learning outcomes from the course. Such information is useful in understanding students' interests, strengths/weaknesses, and level of knowledge. Some instructors have information sheets for students to fill out or ask students to use 3 x 5 cards to supply information. Some faculty members use the online photo rosters of students and put these on the class website. For instructions on obtaining a photo roster of your class and how to fit all photos on one page, go to http://ctl.fsu.edu/explore/bestpractices/docs/pictureroster.pdf
- An activity for "breaking the ice" can be used to help students become more willing to participate and will allow students to learn more about each other. This can be very beneficial if groups will be formed in class.
- Sometimes this first day gets to be simply a list of do's and don'ts. You could use the time to sell the course, the discipline, and your interest in it. This might help the students get more interested in the content. The Teaching Professor (1989) suggests that you let students know why this course is interesting, why you like teaching it.

Discuss Your Syllabus

Much, if not all, of the information on your syllabus should be discussed.

- An important function of the first day is to indicate the structure of the course – content to be covered, justification for your choice of content, how the content fits into the curriculum, a schedule of that coverage, etc.
- Students generally want to know more about things that affect their grades: attendance, test and quiz policies, homework, how much work the course requires, your expectations, and your grading policy. The students should know what is expected of them for your course.

- One way to approach learning objectives is to ask students what they intend to get out of the course. Some of these ideas can be incorporated into or may be the same as the objectives you stated on the syllabus. This gives students a feeling of being part of the planning of the course.
- Discuss the texts, required readings, or reserved readings in the library.

Guidelines for Building Positive Classroom Climates

No matter what degree of friendliness you maintain, there are some things that you can do to build an effective learning atmosphere and indicate your interest in your students.

- Arrive a few minutes early to chat with students about the course assignments or campus events. Because it is common for many of us to be tongue-tied when we are trying to start a conversation, it is helpful if you have two or three questions thought out ahead of time.

Examples

- Did you find the assignment difficult?
- What was the hardest part of it?
- Did you see the women's volleyball game Friday night?
- I'm up to my neck in work. How are you surviving?

- Attempt to learn students' names. You could use a class roster or a seating chart. If you prefer not to take the time to call roll, then find some way to recognize students by name (returning assignments, calling on them in class, forming groups).
- Acknowledge and praise students' good contributions in class. It is helpful to notice how praise occurs in everyday conversation, so that you can transfer the same natural praises to the classroom. Certainly correct students' mistakes but never put a student down for trying. One professor's theory is to never say NO to a student. Find other ways to make sure the correct information is received by all students.

- Be tolerant of students' viewpoints. Rather than thinking of differing viewpoints as contradictory to your own, attempt to compare and contrast them as one means of getting your original lesson across to the students. Your tolerance models appropriate classroom behavior for students – and you can extend that modeling through judicious selection of activities such as role-playing, staged debates, and case studies that focus on the process of interaction and not just on its subject.
- Step away from the lectern. Standing behind something implies a physical barrier between "us" and "them" and detracts from a sense of "immediacy" or connection that research has shown to be a primary factor in reducing classroom incivility. Being connected also helps model appropriate collegial behavior. You also can emphasize this by not being territorial: just as body language can be perceived as closed or defensive, so can your movement (or lack of it) in class. Step off the stage and move around the room. Sit down from time to time. Get on the students' level and become their colleague, not their superior (nor their buddy, as mentioned earlier). Share learning.
- Stay after class to answer questions.
- Select varied office hours and keep them. Invite students to stop by to discuss their performance on tests, quizzes, and assignments. You may actually have to require students to come to your office. Students usually do not come of their own initiative even if they know they should. Do not simply ask those few students who need your assistance to come to your office; encourage all students to come talk to you.
- Consider holding extra help or review sessions outside of regularly scheduled classes, especially to prepare for exams.
- Obtain early feedback from your students about your teaching. This will give you time to make changes in your class that will make a difference before the semester is over. You may request that the Teaching Assessment by Students (TABS) rating system be administered to your class anytime during the semester. (For more information, call the Office of Distance Learning at 644-4535.) Or you could use other means to gather information from your students - using informal questionnaires, meeting with small groups of students to discuss how the course is progressing, or asking students from class to interview their fellow classmates about their perspective on the success of the class.

The Teaching Professor (1989)

Chapter 6 - Especially for TA's

This chapter discusses the unique roles and responsibilities of both Graduate Teaching Assistants (TA's) and graduate students and offers advice on improving professionalism and managing workloads. This chapter also covers the various components of the Program for Instructional Excellence (PIE), which supports teaching enhancement for TA's.

- **Managing Dual Roles of Student and Teacher**
- **Advice from Experienced TA's**
- **Maintaining Professionalism**
- **Workload Management**
- **Program for Instructional Excellence (PIE)**
- **Contact PIE at** pie.fsu.edu
- **Other Instructional Support Programs**
- **Recognitions**
- **Resources on TA Training**

Managing Dual Roles of Student and Teacher

Classroom Issues

How do I manage students who may be close to my own age?

Not only are many TA's close in age to undergraduates, but some have also graduated from the same program in which they are now teaching. As a result, often a TA's most pressing concern is how to gain respect and credibility in an instructor role. Maintaining a professional distance is one way to establish your presence as instructor - ways to accomplish this distance are discussed later in this chapter. If you feel you cannot fairly evaluate someone whom you have known socially, it might be best to ask the student to enroll in a different section, if at all possible. If that is not possible, establish clear rules ahead of time with the student.

How can I be perceived as credible and in control of the classroom – and still be liked?

Instructors at any level want to be seen as likable, approachable, and in touch with undergraduate concerns; however, being too sociable and extroverted can undermine credibility, especially for TA's. We suggest that TA's establish explicit, reasonable guidelines early in the term and adhere to them consistently. The guidelines and the rationale for each one

should be included in the syllabus or distributed as a separate handout. By establishing boundaries at the course onset, the TA is then free to focus on those strategies that will make learning fun and enjoyable.

What are some personal qualities and attitudes useful in working with students and colleagues?

Students mention such qualities as warmth, friendliness, caring, enthusiasm, accessibility, and a sense of humor. Wilbert McKeachie, author of *Teaching Tips: Strategies, Research, and Theory for College and University Teachers*, now in its twelfth edition, mirrors the comments of many students with his research findings.

In general, if an instructor is enthusiastic, friendly, and seriously interested in the subject, the students will also be interested. Use your own experiences as a student to help determine which professional qualities and attitudes you want to incorporate into your teaching - the qualities you admired in the excellent instructors you have had are the same ones you should cultivate as an instructor.

How do I manage the interpersonal problems that may arise when I teach?

It is important to remember that the University serves a diverse student population, and you can expect a range of student abilities, attitudes, and learning styles. Socially, students also differ in their maturation levels; some are still rebelling against authority and will test you. Others do not notice that their behavior is disturbing to their peers, and some simply do not care. Some students enjoy learning; others merely tolerate classes and focus on their social life. In spite of all this, TA's generally get along well with students.

Providing a safe and tolerant learning environment is one of the requirements for any instructor. Often, just talking to a student one-to-one and calmly pointing out a problem will solve it. If the problem continues, you might invite your faculty mentor to observe your class and offer suggestions. If the behavior is especially disruptive or difficult, you may wish to consult the staff at FSU's Counseling Center (644-2003) or encourage the student to seek assistance from them. It will usually magnify the problem if you embarrass the student in front of the class or if you resort to sarcasm or anger.

Balancing of Roles

How do I balance the conflicting, simultaneous roles of student and teacher?

Reinforced by their teaching successes, TA's may increasingly spend more and more time on teaching preparation at the expense of their own coursework. TA's need to remind themselves continually that their primary objective as graduate students is to complete their degree. TA's who find they are falling behind in their own coursework because of the

demands of the courses they teach should see the Director of Graduate Students in their department, their major advisor, or their own course instructors to discuss ways to create more balance in their schedules. Consultants in the Program for Instructional Excellence (PIE) are also available to talk with you about this situation (contact a PIE consultant at pie.fsu.edu). Suggestions on time management in this chapter may also help.

How do I manage my personal life, studies, and teaching responsibilities simultaneously?

Ultimately, graduate students' ability to manage their time effectively is one predictor of immediate and long-term success. The responsibilities involved with a teaching assistantship underscore the importance of time management. A direct and honest discussion among experienced TA's, faculty, and new TA's about these responsibilities is time well spent during the initial TA training program.

Managing time effectively requires developing a strategic plan of action. In addition to laying out a semester-by-semester program of study, it is useful to outline weekly and daily schedules. The plan should include actual classroom contact and office hours, teaching preparation and grading time, seminar readings and writing assignments, exercise routines and leisure activities, and other important personal obligations.

Often students determine that "there isn't enough time in a day to do everything," at which point prioritizing responsibilities will help meet both academic and personal objectives. A written schedule clearly demonstrates that time associated with teaching, by necessity, cannot consume a disproportionate amount of the work day. Acquiring the ability to manage time effectively both adds to the overall learning experience as a TA and is a critical part of becoming a professional in academe or in the business world.

Advice from Experienced TA's

To Increase Integrity

- Tell students about yourself, sharing academic and professional interests.
- Make your expectations of their performance clear.
- Convey seriousness and be consistent.
- Dress professionally. Do not wear clothes that are too revealing or too casual (e.g., ripped jeans).

To Increase Competence

- Remind students they are responsible for their willingness or unwillingness to learn.
- Get into the essential content of the course early.
- Demonstrate enthusiasm for your subject.

- Get feedback from students on whether you are doing a good job, so that you can improve if need be. Offer students the chance to evaluate you in mid-semester, so that you may make the necessary adjustments to benefit their learning experience.
- Bring extra chalk, erasers, and other teaching materials to class.
- Take into consideration that students learn differently.

To Increase Composure

- Spend time preparing for the first week of classes. Be organized.
- Remember the students are new learners in your subject.
- Check out the room before class. Become comfortable using the classroom equipment (e.g., computers, projectors) and know whom to ask for help in case of difficulties.

To Increase Sociability

- Pass out a "get to know you survey" on the first day of class, or post one to your course website.
- Find out who your students are. Use index cards to collect information on backgrounds, goals, and interests as they relate to your class.
- Convince them during the first classes that you see them as individuals, not numbers.
- Before class, spend a few minutes interacting with students.
- Call the students by name. Create a Photo Roster to help you associate names with faces.

[Excerpted from Daryl Weisman and Ancilla Parducci, Teaching Associates. First Day and Syllabus (1997). Fall Teaching Conference.]

Maintaining Professionalism

Undergraduates expect a TA to conduct class with the same professionalism as faculty. Consider the following pointers on maintaining professionalism:

- Avoid discussing departmental faculty, other TA's and their classes, assignments, grading, or course policies.
- Do not socialize extensively with students outside of class (e.g., date, flirt, party with), unless it is a whole-class activity. Even the appearance of flirting with a student can create misunderstandings and cause problems – be careful to avoid it.
- Make certain you understand the University's policy on sexual harassment and sexual battery. Sexual harassment policy training is required of all TA's. More information is available at the Office of Audit Services.
- Evaluate students' work fairly and impartially, and avoid discussing students' marks in public or giving out a grade to anyone but the student to whom it belongs.

- Prepare for all student-instructor encounters. Meet classes as scheduled and keep scheduled office hours.
- Use appropriate language and humor.
- Try to stay on track with course topics.

Workload Management

Consider the following scenario:

Time: Late on a Saturday evening near the end of the semester.

Place: Your apartment.

Situation: You are sitting at your desk. In one corner of the desk sits a mountainous pile of ungraded student papers. In the other corner is an equally towering pile of books for the final paper and exam in one of your graduate courses. In the center of the desk are the materials for the class you are to teach on Monday.

Question: Where do you begin? The most natural reaction would be to begin the preparations for Monday's class - after all, that is the most immediate pressure because you must walk into class on Monday and face the class - prepared or not. Failure here means immediate embarrassment in front of a large group of people; success provides immediate gratification. This TA'sk, then, becomes the most seductive one, and the sense of concrete achievement it provides may allow you, at least temporarily, to forget the burden of papers and graduate work. Very soon, however, the feeling of pressure will again begin to build up, intensified because deadlines have drawn even closer.

Guidelines

To avoid crisis situations, begin the semester by creating some rules for yourself. You may not always be able to keep them, but you should try to adopt them as general guides.

- If you must establish priorities (and sometimes you must), remember your own graduate work. One of your greatest responsibilities is to your graduate program. Thinking practically, you must realize that your teaching assistantship is dependent upon successful completion of your own courses.
- Do not let the work pile up. Break down long-term goals into short-term goals. Large blocks of free time are difficult to find once the semester gets underway; instead, calculate how many papers you would have to read every day to return the papers to students in a reasonable time. If you have 30 students in a class, reading four or five papers each day will enable you to read them all in one week.
- Be willing to ask for help as the semester progresses, if you find yourself consistently behind with both your graduate work and your teaching, it is time to reassess your methods. Speak to your faculty advisor or TA supervisor about your problem.

- Learn to say "no." Many TA's take on too many responsibilities. It is much better to do a few things well and completely than to do many things poorly and incompletely.

Recommendations to help you organize your time

- Rank all tasks in their order of importance, which will give you a realistic perspective.
- Make an outline of all deadlines you must meet during the semester. This way you can determine what is due and what you can delay quickly.
- Enter all tasks and deadlines in a date book or calendar. Looking at this date book daily will allow you to maintain a realistic notion of what remains to be done. Flag important dates in the calendar, and write a reminder in your calendar before the due date for each tasks, allowing yourself enough lead-time to complete it.
- Each evening, make up a prioritized "to-do" list for the next day. Each morning, before you begin your work, go over this list to plan your day, starting with the most critical tasks first.
- Consider creating a wall chart with critical tasks and dates marked. Post it over your desk so that you can read it every day.
- Use project-management software on your computer to schedule critical tasks and dates.
- Find out what hours of the day you work most efficiently, and schedule important TA'sks during these hours of peak performance.

Adapted with permission from The Teaching Assistant Handbook (1988). *Teaching Assistant Project*, The Graduate School, Rutgers University, New Brunswick, NJ.

Program for Instructional Excellence

The Program for Instructional Excellence (PIE) programs operate on a comprehensive teaching assistant (TA) training model facilitated by both department-based and university-based training. University-based training is meant to complement rather than replace the excellent programs that exist in a number of departments. University-based training guarantees that all TA's have access to professional development services. Because TA training varies considerably among departments, campus-wide preparation ensures that a minimum level of training will be provided. All services provided to faculty such as workshops, consultations, and support for technology integration are also available to TA's. Information about PIE and its services and programs can be obtained at pie.fsu.edu

Workshops and Teaching Consultations

Workshops, panel discussions, and teaching consultations particularly relevant to TAs are available at no-cost throughout the year.

PIE Teaching Conference

To help prepare TAs for immediate undergraduate classroom responsibilities, PIE conducts an annual two-day teaching conference each fall semester in the week before classes start. The conference is free to participants and focuses on policies and services of the University as they relate to teaching. Award-winning faculty and TAs conduct sessions on a variety of topics, including course planning and delivery, interactions with students, and assessment of student performance. Conference participants have an opportunity to earn a PIE Certificate through submitting reflective statements on the sessions they attend and by writing a teaching philosophy indicating knowledge and a commitment to teaching at FSU.

Outstanding Teaching Assistant Awards (OTTA)

The Program for Instructional Excellence (PIE) also sponsors the Outstanding Teaching Assistant Award (OTTA) program. These awards are given to TAs in recognition of their distinguished contributions to undergraduate student learning through excellence in instruction. These TAs receive a certificate and cash award at The Celebration of Graduate Student Excellence, an annual spring event.

PIE Associate Program

The PIE Associate Program improves teaching across campus by helping departments enhance their TA training programs and establish interdisciplinary connections and community among graduate students at FSU. At the end of the spring semester PIE calls for interested departments with experienced TAs to apply for acceptance into the PIE Associate Program.

Applications are reviewed and representatives from departments are chosen for PIE Associate positions. PIE Associates receive a stipend for their work and serve for one year and may apply to continue participation in the program at the end of their tenure. The stipend received for participating in this program does not reduce the amount received for a teaching assistantship.

PIE Associates model what they have learned about good teaching and adapt it to the specific needs of their department and discipline. Departmental programs are closely coordinated with the university-wide program and together demonstrate how general teaching principles are applied within various academic disciplines. The PIE Associate experience advances not only campus-wide TA training but also gives valuable experience in service to committees and focus groups.

Online Resources

Online resources are available at pie.fsu.edu that allow TAs to explore a wide variety of pedagogical strategies, techniques, and technologies that increase teaching effectiveness and enhance student learning.

TAs will find resources to help them apply instructional technologies such as podcasting and "clickers," use proven methodologies that engage students and help them learn online and in the classroom, and implement rigorous, meaningful assessments of teaching and learning.

More about PIE Recognitions

PIE Teaching Certificates

During the Fall Conference, TAs can earn a PIE Teaching Certificate. Examples of topic areas from previous conferences include: Course Development, Course Delivery, Assessment and Evaluation, Social Interaction, and Professional Development.

Outstanding TA Awards

Each year, undergraduate students and faculty members nominate outstanding teaching assistants. Up to 15 recipients of this University award are recognized at the Spring Celebration of Graduate Student Excellence, held in April.

Resources on TA Training

Books/Articles

- Anthony, W. P. (1981). *Management: Competencies and incompetencies*. Reading, MA: Addison Wesley.
- McKeachie, W. J., & Svinicki, M. (2005). *Teaching tips: Strategies, research, and theory for college and university teachers* (12th ed.). Lexington, MA: Houghton Mifflin.
- Nyquist, J. D., Abbott, R. D., Wulff, D. H., & Sprague, J. (Eds.). (1991). *Preparing the professorate of tomorrow to teach: Selected readings in TA training*. *Dubuque*, IA: Kendall/Hunt Publishing.

III. Lesson Delivery
Chapter 7 - Lecturing Effectively

Lectures are comprised of two components: Content and Delivery. Both components are essential for creating an interesting lecture. If the beginning of a lecture captures your attention, the middle builds suspense or intrigue as the lecture unfolds, and the end forms a resolution, you have a lecture in story form – the age-old method for passing on information. Yet, how well a story is told is dependent upon the quality of the delivery. First, we cover the rules of content; later in the chapter, we discuss the elements of delivery.

Appropriate Uses for Lectures

- Lectures are best suited for making information memorable; that is, lectures provide elaboration of content, examples, and context. Also, because texts often lag behind current knowledge, lectures are valuable methods for presenting new information.
- Contrary to popular belief, lectures are not the best method for imparting large amounts of information. Voluminous information is better presented in text format, where it can be made available for review whenever the students need access to it. In fact, one of the most effective learning strategies students can employ is to read and then re-read their text assignment.
- One counterproductive lecture activity is to read the text to the students. Most instructors would say, "I never do that!" But they do. A survey of U.S. Air Force Academy students showed that if the instructor lectures the text material, the students do not bother to read the text. Instructors often think students are lazy, that they do not come to class prepared or ready to learn. Yet, the instructors inform the students, through the lecture, what material they should have read in the text. Generally, it is not a good idea to lecture from the text.

- Yet, it is helpful to elaborate on what is presented in the text. If your students have read the assignment, you are providing what the text cannot provide, a context for use of the information, examples of when or how that information is used, and stories that illustrate the importance of the information.
- Focus the message. In the words of Howard Gardner (2000), "In a lecture, less is more." It is very easy to present too much information, which quickly saturates students, causing them to drop into a passive-listening role. They may understand what is being said, but they are not retaining it. In fact, some research suggests that students can only remember five to nine major points from a lecture. It is better to teach a few things well than to teach a lot of material poorly. Unless the learner can encode the information in a rich context with good examples and reasons for remembering it, the information will not stay in memory very long.
- To aid memory, use visual illustrations during a lecture. Visual illustrations are remembered longer than verbal information, and they can aid the recall of information that is associated with them. Many classrooms are equipped with technology that will help you add other dimensions to your lecture.
- Technology-Enhanced Classrooms (TECs) allow you to use computer consoles, DVD/VHS players, personal response systems, wireless microphones, and other technologies to enhance your teaching. You can display your teaching files (PowerPoint, sound files, images), and your course site or other websites on an LCD projector. Using the "T: Drive" from your home or office allows you to access your files without carrying around a disk or laptop. You need only create (or renew) your TEC account and reserve one of the many TECs available across campus to use this resource. Remember to practice with the technology prior to your class meeting and be sure to arrive early enough to get the equipment up and running before class starts.

Use of PowerPoint to Enhance Lectures

Many instructors find PowerPoint useful in enhancing lectures and emphasizing key point to their students. However, misuse and overuse of this software can lead to a room full of bored looks and glassy stares. To avoid "death by PowerPoint," consider the following tips.

- PowerPoint is a visual medium. Use graphics, pictures, models, and other images instead of bullets to make your point whenever possible.
- In PowerPoint, less can be more. Think big, bold, and

brief. Do not put large amounts of text on the screen. Aim for no more than seven lines per slide and ruthlessly edit so that your bullets contain only the main points.

- Design your visuals so students in the back row can see them. Font sizes less than 24 pts are difficult to read. Try to choose san serif fonts such as Tahoma, Arial, or Verdana, which are easier to read when projected.
- Avoid putting large amounts of text on the screen and then reading it to the audience. Pause for a moment and let the students read the slide before you comment or elaborate on it.
- Use animation events sparingly.
- Use highlighting features to focus attention on what you are discussing.
- Think contrast when selecting colors for the background and text. Yellow or white text on a black background, for instance, is a good high-contrast choice.
- Select color combinations with care. Text and background in red and blue; red and green; or blue and black can be difficult to read. Also, be aware that color-blind individuals have trouble telling the difference between red and green, or blue and purple. Avoid these color combinations when possible.
- Spend enough time on each slide to fully develop your explanation. Three minutes per slide is a good general rule.
- Help students take notes by using the slide handout feature. These can be passed out in class or posted on your course website.

Active Lectures

In Chapter 8 we discuss students as active learners. Here, we pose the question: Can a lecture be active? If your lecture is dynamic and interesting, students become fascinated with the subject and want to learn more. Are the students leaning forward in their seats trying to catch every word? With an active lecture, students become active listeners. Or are they leaning back, thinking about what they are going to do this weekend? If this is the case, students have become passive listeners.

Lectures Combined with Class Discussion

Penner, in his book *Why Many College Teachers Cannot Lecture* (1984), cites research that shows students' attention to a lecture begins to wane after just 10 minutes, and is at its lowest from 20 to 40 minutes into the lecture. In light of this research, consider dividing your material into 15-minute mini-lectures and interspersing your talk with activities that will engage your students.

One method for making your lectures more interesting is to combine them with class discussion. Some techniques for doing this are discussed in Chapter 11 – Teaching Contexts. Here, we concentrate on what makes a good lecture discussion and some pitfalls to avoid.

- **Good discussion questions get the students' attention.** Start by asking a question associated with something they should have read – not a recall question, but perhaps one on a controversial topic.

> **Example**
>
> "How many of you agree with _____ 's position on (topic)"? When students raise their hands, choose one and ask why he or she agrees with that position. Or, ask the other students why they disagree. Another strategy is to divide the class in half – ask one half to take a pro position with regard to the topic, the other, a con position. Ask how the topic could be viewed differently from each viewpoint.

- **Start with a divergent question** such as, "What are the criteria for evaluating good teaching?" Write the first answer on the board. Ask for another. When you have ten or so criteria, ask the class which is the single best criteria and why? Who has a different opinion?
- **Do not ask recall questions that have a single correct answer unless you are going to do something with the response.** Ask the question, and then call on a student to answer it. If you identify the student first, the rest of the class is off the hook, and they may pay less attention.
- **Can the rest of the class hear the student asking or answering a question?** Have the student stand up and speak loudly enough so everyone can hear. If necessary, repeat the question or answer so that the entire class can hear.
- **Give everyone the opportunity to talk.** Spread the questions around; do not answer them all yourself – redirect them to other students in the class. Ask for examples from the students' experiences.

Organizing the Lecture

Quality lectures contain content that is well organized. To organize your lectures, heed the maxim - tell them what you are going to tell them; tell them; and tell them what you told them.

- Tell them what you are going to tell them establishes an expectation of what is coming next, and allows the learner to get into the proper frame of mind. One way to do this is to remind the students of the learning objectives for the lesson.

Example

"Today's lecture is about the rules for establishing normality in a relational database. When we are finished, I expect you to be able to recall the three rules I will talk about, and why they are critical to maintaining a useful database."

If the students were assigned a reading, this might be a good time for a question to get their attention.

Example

"If a person's name is found in a relational database more than once, can it still be normalized?"

An additional introductory strategy is to review what was covered in the last class. This strategy brings to mind material that you plan to build on, and establishes a link among a series of lectures. This too can be done with a question as well as with a presentation.

- **Tell them.** Now comes the major content of the presentation. The body of the lecture may contain a number of components.

  1. Presentation of new information
  2. Elaboration of that information
     a. Application of that information
     b. Examples and non-examples
     c. Pictures, visual images, or concrete objects where possible

  Listeners are quickly saturated with new information. Pictures, examples, and other images help the listener to encode the new information and make it memorable. Remember Howard Gardner's advice, a few things learned well are more valuable than a lot of information soon forgotten. In general, learners can maintain somewhere between five and nine ideas in mind at a single time. Aim for the lower end of this, and you are more likely to be effective than if you try to teach too much. Cluster things you talk about.

Example

"I am going to talk about five types of data: text, integer, floating point, images, and date/time. Can someone give me an example of text data?"

An especially valuable opportunity is when students provide examples or apply what has been presented. This gives you an opportunity to determine if what you are saying is being understood. Remember, after 15 minutes student attention wanes, so have them engage in some form of activity that aids memory of what you just said.

- **Tell them what you told them.** Although the lowest point for student attention is between 20 to 40 minutes into the lecture, attention picks up again from minutes 40 to 45. But the drawback is that now you are beginning to fatigue. This would be a good time to summarize the important concepts or information for the day. Go over the objectives and the resolution. This strategy brings together the information and helps hold it together.

  Involve students in the final five minutes of class, rather than lecture to them. Studies have shown that students are thinking about leaving, and assimilation of new information is at its lowest point. Instead, have students jot down the most important thing they learned, or a question they would like answered about the day's lecture, or have them answer a single question over the lesson material.

Listening Skills

Not all students are good listeners. But it is your responsibility to grab their attention and maintain it. Your job is easier if students come to class prepared for the lecture (which, remember, should not be a rehash of the readings, but an expansion or elaboration of it). To do this, provide them with strategies for arriving to class better prepared.

Similar to the steps in delivering a lecture is a series of steps in reading a text, the "three S method" — Scan, Study, and Summarize.

- **Scanning** establishes an expectation of what the chapter will cover.
- **Studying** allows the text to present the new information (with whatever elaboration is presented).
- **Summarizing** reflects on what was read, making sense of it. Students who are unfamiliar with this system should try it out on a small chunk of reading, rather than a whole chapter, until they become comfortable with it. A prepared listener is a motivated listener, because what is being talked about makes more sense and builds on what the learner has read.

Learners As Lecturers

To teach is to learn twice. Students cannot tell you if they misunderstand something you may have said. They can tell you they do not understand. The danger is that they heard you, yet they have *misinterpreted* what you said. One way to prevent misinterpretation is to have the student become the lecturer, at least for small parts of the presentation. This method moves you away from the straight lecture and into a lecture/discussion presentation.

When students present or participate in discussions, it is important to recognize them for contributing, *and* give them feedback with regard to their understanding. These are two different things. Communication is reduced if you embarrass a student by *implying* that her question or answer is stupid. To do so is to build a barrier that is difficult to overcome. Also, other students in the class will quickly learn that they too could become the target of ridicule and will hesitate before participating in discussion.

Example

In a pizza restaurant, a Jamaican man came in to order a slice of pie. The man behind the counter was an Italian, and had not been in the U.S. very long. The Jamaican ordered. The Italian did not catch what he said and asked him to repeat his request as he listened very carefully to the heavy British accent. He repeated the Jamaican's order and said, "Oh, you don't speak English very well either." Whereupon the Jamaican replied, "I am from Jamaica. I speak English perfectly."

The first words out of our mouths form a first impression that influences communication. Many students will accommodate to dialects, and sometimes to less than perfect English, but it can be a barrier that hinders learning. In these cases, it is a good idea to use other teaching techniques frequently and to rely on lecture as little as possible. Or, get help in becoming a better speaker.

- To reduce concerns related to language, speak slower when lecturing so students can adjust to a different accent and dialect. Consider writing unfamiliar words on the chalkboard or displaying on PowerPoint so that students do not have to struggle with terms.
- Acknowledge that you may pronounce words differently and ask students for their pronunciation.
- Avoid misunderstandings by rephrasing a student's question such as "*I understand you are asking about….*"

Also, save the last few minutes of class to have students write a summary of the lecture, provide three main points covered that day, or answer a question related to the class. This technique can help you check their understanding of the material without adding to their stress.

- Keep in mind that many American undergraduate classes are considered very informal as compared to international classrooms. Use this to your advantage by engaging students in discussions about your topic. Students are likely to appreciate your willingness to involve them and will help offset any difficulties with the language.

  Reduce students' anxiety about understanding what is important in your course by clarifying expectations in your syllabus and at the beginning of each class. Have clear learning outcomes of what you want your students to know or do and organize your lectures and assessments around achievable outcomes. Post your outcomes on the course site so students can easily review them.

Resource

- At FSU, students and faculty can get help from the Center for Intensive English Studies.

Elements of Delivery

How you say something is equally as important as what you say. The three major components of delivery are: vocal elements, body language and gestures, and in instructional situations, visuals (or artifacts).

Vocal	The basic concept is that you are communicating with each individual in the audience. You have to speak loudly enough to be heard, clearly enough to be understood, and with enough enthusiasm to maintain attention.
Intonation	Intonation is the range of your voice. Some speakers are monotone, which tends to be boring. On the other hand, some speakers are too histrionic, which tends to become tiresome, e.g., a Bob Barker voice. A natural speaking voice with a good range of inflection works best.
Loudness	Too soft and the audience cannot hear you. Too loud and they will not want to. Of the two, too loud is preferable, but somewhere in the middle is "just right."
Rate	Speaking too fast does not give students time to digest what is being said. Too slow puts them to sleep. Research has shown that students attribute more intelligence to someone who talks at a more rapid pace; yet, it does not say how much they learn.
Stress	Stress and inflection are related to intonation but they are not the same. Stress is how you emphasize an important point or issue, which can be applied by slowing speech, stopping, spelling a word out, repeating a phrase. Use stress to highlight important detail, but used too much, it becomes tiresome.
Pauses	Pauses are used both to stress a point and to allow students time to think and catch up. A pause can be used to gain attention, for transition to a new event, to give students time to catch up with an illustration, or to take notes. Example - You might say, "Copy down what is on the board," or "Look at Figure 2 on your handout," and then pause so that they can focus their attention on it.

Body

Gestures	Two extremes of gesturing are: none and wild. Gestures and movement convey a sense of comfort with the material. They can be used along with vocal variation to stress the importance of something, or simply to point out an important part of a visual.
Movement	Two extremes of movement are: clutching the podium and pacing the room. Both are distracting to the communication process. Movement should be a natural flow, from the podium to the board to the audience. Another consideration is your position in the room. Changing location causes the students to refocus their attention, and can keep students alert.

Visuals

Chalkboard	Two extremes of chalkboard use are: Too much time spent writing information on the board, which could have been provided in a handout; and no use of the board, when it would have been helpful to the learners.
Graphics Complexity	The biggest problems with graphics are that they are usually too small to read and contain too much material. Keep graphics simple and large.
Graphics Use	Discuss the graphic in your lecture. A graphic that is not referenced during the lecture is not much help. The graphic is an elaboration to aid recall of verbal information or propositions.
Types of Visuals	All of your visuals do not have to be PowerPoint slides. The use of real objects can increase attention, particularly if they are passed around the room. Remember to pause, giving students time to look at them.

The Gestalt

While it is possible to break the presentation or delivery into the above-listed components analytically, the lecture is more than the sum of its parts. All of these delivery components work together with the content to capture the attention and imagination of the audience.

Improving Your Lecturing Skills through Microteaching

Microteaching is giving a short lecture, demonstration, or leading a discussion *with your peers*. When first suggested, the idea of teaching in front of one's peers strikes fear in the heart. Microteaching, however, is a time proven method of learning and practicing one's lecturing skills. After participating, most instructors come to believe that microteaching is a superior method for improving their lecture skills.

Your presentation is videotaped, and an evaluator gives you feedback on a number of different criteria. There are many different criteria for being a good lecturer, and it is probably not possible to keep all the criteria in mind at one time.

You can set up a video camera in your class and review the tape in the privacy of your own home to improve areas where you feel you have weaknesses. Also, it is a wonderful technique to use with students. Students feel amazing empathy for instructors when they have experienced the other side of the podium. Keep in mind:

- **It is an authentic experience.** Pick a skill or information that you feel you can teach someone in 8 to 10 minutes. Write down the objective, so that you can determine later whether the audience thinks your objective was reached.
- **Be natural.** The purpose of the exercise is to improve your present teaching skills. If you practice especially for this presentation, and do it significantly different from your standard lectures, you will not get the feedback you need to improve.

Suggestions

- Introduce yourself.
- Speak so everyone can hear you.
- Tell your audience the objective you hope they will attain.
- Avoid standing behind or clutching the podium during the entire lecture.
- Use visuals where they might help the learner understand.
- Put your lecture outline, or points to present, on a few 3 x 5 cards.
- Have fun!

Lecture Skills Observation Sheet

Needs Improvement	Just Right	Needs Improvement
Verbal Communication		
Speaks too softly.	Changes volume, either increasing or decreasing, for emphasis or to regain attention of the audience.	Speaks too loudly.
Articulates poorly.	Articulates precisely.	Exaggerates the articulation.
Speaks too slowly.	Speaks at a good pace.	Speaks too rapidly.
Fills pause with vocalizers (e.g., ah, um, okay, now, you know).	Uses pauses to emphasize important content.	Does not use pauses.
Does not vary voice pitch; speaks in monotone.	Voice replicates the natural rhythms and pitch changes of conversation.	Uses repetitive patterns of pitch and emphasis (sing-song quality).
Non-Verbal Communication		
Hides behind podium, hand glued to the podium.	Is visible to the students and uses gestures when appropriate to reinforce the content.	Is constantly moving, pacing, rocking, or talking to the chalkboard.
Distracts the audience by looking out the window, down the hall, etc.	Makes good eye contact with the audience; reads body language of the students.	Reads directly from notes; makes little eye contact.
Uses no visuals, no handouts, or lecture support materials.	Uses visuals and handouts that will be helpful to the students.	Hands out the complete text of the lecture, or reads the text.
Dress is too casual for the audience; does not reflect professional position.	Personal appearance conveys the image that teachers should project.	Personal appearance is too formal for the situation.
Preparation/ Organization		
Seems unprepared, disorganized.	Uses outline or visuals for organization; speaks without notes.	Reads from text, showing little knowledge or a lack of confidence.

Instructions

Place a check in the box that you feel most accurately provides feedback to the person you are evaluating.

Example

If a person is speaking too slowly and you feel his or her rating should be "too slow," then put a check somewhere in that box.

Resources on Lecturing

Books/Articles

- Gardner, H. (2000). *The disciplined mind: Beyond facts and standardized tests, the K-12 education that every child deserves*. Penquin Books: New York, NY.
- Penner, J. G. (1984). *Why many college teachers cannot lecture: How to avoid communication breakdown in the classroom*. Charles Thomas Publishers.

Chapter 8 - Using Active Learning in the Classroom

Active learning shifts the focus from the teacher and delivery of course content to the student and active engagement with the material. Through active learning techniques and modeling by the teacher, students shed the traditional role as passive receptors and learn and practice how to apprehend knowledge and skills and use them meaningfully.

- **What is "active learning"?**
- **Integrating Active Learning into the Classroom**
- **A Sampling of Active Learning Techniques**
- **Additional Active Learning Activities**
- **Resources for Active Learning**

What is "active learning"?

Active learning involves providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject. (Meyers & Jones, 1993, p. 6)

Research and anecdotal evidence overwhelmingly support the claim that students learn best when they engage with course material and actively participate in their learning. Yet the traditional teaching model has positioned students as passive receptors into which teachers deposit concepts and information. The model has emphasized the delivery of course material and rewarded students adept at reflecting the course content on assessments. The spoils have tended to go to students with good short-term memories and reading skills.

Among the student population, there have always been those who have the wherewithal to make connections among course concepts, generate and ask themselves meaningful questions and then search for answers, and interact with readings through annotations (i.e., dialoguing with the texts through notes in the margins rather than the copious highlighting that leaves most textbooks filled with more secondary colors than black on white).

However, the majority of students need to be provided with active learning opportunities to approach this ideal; and even those who are self-directed will learn more and be able to apply their learning more adeptly when course activities are based on active learning.

Active learning shifts the focus of instruction from what should you, the instructor, teach or deliver to students to what do you want students to be able to do with course material. Similarly, students must enter class prepared to use assigned readings and reviewed material from past classes, etc. Not only are students expected to be up-to-date on course material, but to have assimilated the material so they can use and build on it. When students recognize that your course involves active learning, they will also recognize that they must be active if they are to succeed in the course.

Active learning techniques are not educational magic bullets. Of course some of your students may not be willing to abandon their passive roles. But between those who are self-motivated and those who choose to sink, there is most likely a large middle group who, with some facilitating from you, will be active learners and markedly improve their performance and long-term command of the material.

The obstacle to integrating active learning techniques into your class is contained within Confucius's aphorism:

I hear and I forget.
I see and I remember.
I do and I understand.

Unfortunately, in most physical and virtual classrooms, we are limited to the very senses Confucius claims to be ineffective pathways for understanding. When used in isolation, hearing or seeing (or reading) does not make for the kind of learning we aspire to create in the classroom. We have all been students listening to lectures and filled with trepidation that we would be responsible for information that, even as we heard it, was slipping through our grasp. We have watched slides or videos and wondered how we could integrate the images into our knowledge banks to be accessible for use in some future exam.

This chapter presents active learning techniques that can help mitigate the limitations of most classroom situations. Still, grasping the principles of active learning will do far more for your teaching than simply using these activities as if they are templates to be filled in with your respective content. Rather, use active learning principles to develop activities for your students that best reflect both your own teaching style and the material, types of thinking, and approaches to the subject necessary to comprehend and apply the topic. Doing so will make you an "active teacher," and you will cross beyond the essential, but incomplete, role of content expert. Content expertise and active teaching will provide students the opportunity to become engaged learners and dynamic thinkers.

Active Learning Techniques Support the University's Instructional Goals

When students learn actively, they retain more content for a longer time and are able to apply that material in a broader range of contexts.

Many faculty members assume that their role is to teach. Instead, think: *My role is to help students learn.*

New research shows that faculty who are facilitators, collaborators, leaders, and organizers are having great success in helping students prepare for lifelong learning and making them more capable to work in fields where they must acquire new skills and knowledge regularly.

Integrating Active Learning into the Classroom

Active learning can be applied to most commonly used course activities, depending on whether they involve the student or they position the student as a receptacle passively receiving content.

Even lecturing, which may seem to be inherently passive, can be an active learning experience if the following are integrated:

- Students are provided with a set of questions as well as instructions to look for answers within the lecture.
- During pauses in the lecture students are asked to jot down questions. The following class may then begin with these questions, which can function as connectors from the previous class to the present class.
- Students are periodically asked throughout the lecture to (silently) make connections between the current material and course materials covered previously.

Additional Methods for Cultivating Active Learning in the Class

In addition to using active learning techniques in your class (such as the ones described in this chapter), you can also model the principles. For example, your students may have *passively* read throughout their lives, so a simple direction to annotate and interact with text may not lead your students to actively read. Show them your own examples of active reading, using a page from their own assigned reading. Then have them submit a page or two of their own active reading, at first, and comment on it, showing them where one more *vertical* step in their thinking about the text, or how using the text to reflect on the larger subject of the course can broaden and sharpen their thinking and learning.

Make your examples sufficient and competent, but do not make them so superior to your students' efforts that they demoralize the very audience you are trying to inspire. Cross-outs in the margins or, in something like a journal exercise, questions that reveal your own uncertainty on an issue or about a concept can help students see that knowledge is often constructed rather than just hooked swiftly in a process available only to the chosen.

Similarly, you may periodically stop discussions and offer suggestions for how students may have modified their comments to engage and build on what another student or students have said (or, if online, posted). You can model ways students can cooperatively build validity and move vertically in their discussions rather than simply free associating and moving horizontally away from the focus of discussion.

As you may have inferred from the discussion above, facilitating active learning may require that you put yourself at risk – you model learning; you give up the unilateral flow of the traditional teaching format; you uncover the topic at hand and permit students the inevitable chance of asking about some corner of it with which you may not be totally at ease or about which you may need to say: "I'm not sure, but I'll refine my own thoughts and present them first thing next class" (or on the discussion board, if you are teaching via a course website).

For your risk, what do you get in return?

- Students who may get excited about the subject
- Students who may learn not only information about the subject but also how to think about the subject (and imagine how valuable that skill is in disciplines where paradigms and ideas are quickly changing and increasing.)
- Students who may believe that you are passionate about learning the subject and who catch your enthusiasm

And even if you do not know that you have touched more than a few students, you will know that you provided opportunity for students to make better use of their ability to learn.

Initial Preparation Time

It is reasonable to think that integrating active learning techniques into your teaching is going to take more time to prepare. However, once active learning is incorporated into your class, you can use and refine the techniques relatively easily.

And because your students will be making course material part of their long-term memory and will be able to apply essential course concepts and theories, less course time will be needed for reviewing material and answering questions on content, and more time can be used for higher-level thinking activities.

Are some teaching contexts not conducive to using active learning techniques?

You may reasonably think that if you teach large lecture sections that actively involving your students in the learning process is not feasible. It may be a bit more difficult to conceptualize how you can make it work but most active learning techniques, with some modifications, can be applied in large classes.

The guiding principle can be applied to any learning situation. You cannot force students in a lecture hall to engage actively with the material, but you can give them the opportunity. For example, a handout with basic questions not only prepares students for your presentation, but also provides the student, under your direction, a chance to summarize the material as answers to the questions.

If you teach a survey course that requires covering a broad expanse of material, you may think that using active learning techniques will not permit you to cover the course material.

Many professors have an overwhelming need to "cover all the material." This approach may not be an efficient strategy.

Consider these statistics reported by Meyers and Jones (1993).

- Students are not attentive to what is being said in a lecture 40% of the time.
- Students retain 70% of the information in the first ten minutes of a lecture but only 20% in the last ten minutes.

- Four months after taking an introductory psychology course, students know only 8% more than students who had never taken the course.

The implication of such research is that you need to evaluate and perhaps discuss with others in your department depth vs. breadth of coverage. You may want to ask a professor who teaches **the next course** in your curriculum what is necessary for students to know when they begin that course. You might just find that it is much more concentrated on analysis and use of content than recall of the content.

A Sampling of Active Learning Techniques

All active learning techniques are intended to help learners make relevant connections among course materials; transforming course materials from opaque language or ideas into something learners can integrate into their own long-term memory and knowledge bank. The activities that follow are intended to help learners achieve these objectives. Instructors may, however, find that some just do not fit their style of teaching or that others would work well in their classroom or online environment with modifications. Other instructors may find that many activities they have done or currently do in class need only be infused with active learning principles to become active learning techniques.

Active Listening

The Intention

Active listening gives students a chance to practice restating in their own words what they have heard. As students form and restate concepts in their own words, they both gain a deeper understanding of the material and recognize where their grasp of the material is insufficient.

The Activity

Paraphrasing spoken statements

- Students pair up. You do not have to classify students as those who understand and those who do not - simply ask students to pair.
- One student explains a concept, principle or method to another.
- The listener paraphrases what the teller has said and seeks clarification if necessary. The listener may use such phrases as “What I hear you saying is…” and “You’re saying…” The listener seeks mainly to reflect the teller’s statements back to the teller accurately and does not try to analyze, judge, or lead the direction of discussion.

Active Writing

The Intention

Some commonly used short writing assignments ask students to reiterate what the instructor has said in class or what an authoritative document, such as a textbook or article, has stated.

Many of the following suggestions build on those short writing assignments by asking students to think in writing about those facts, concepts, and issues delivered by content experts.

As students "think in writing" they clarify the material for themselves and see what they understand and what they need help in making sense of it.

Through writing, students order and organize the material so they can comprehend both the larger picture and the supporting details - building a ladder of abstraction that helps them see the relation among topics and subtopics.

Students can use writing to explore a topic or class material, using the pen as a flashlight that provides them the opportunity and the confidence to think beyond the statements and thoughts of others and to forge connections among isolated concepts.

In their work *Promoting Active Learning,* Meyers and Jones (1993) suggest that when students are directed to write for specific "rhetorical contexts" - a specific audience, situation, and purpose - they are more apt to write clearly and coherently, than when they think they should model the opaque, stilted prose they associate with academic style and language.

Note: Even when provided explicit instructions for a writing assignment, many students may not understand what is required of them. A good way to inform students of what you expect is to create and model (briefly) their writing assignments by offering an example that reflects the limits within which the students will write.

For example, if they will be able to produce only a first draft, then a model should not be perfect or the result of many drafts, and should contain the same kinds of flaws that would appear in a typical example.

The Activities: For Individuals

Submitting questions

- Ask students to write down and submit any questions they have at the end of each class.
- The answers to these questions become the beginning of the next class.
- This technique can be used to gauge student learning, as well as to motivate students to listen. It also provides a way to review course material before moving forward.

Writing a summary of summaries

- Students write a 2-3-page summary of an assigned reading and exchange summaries.
- Each student then writes a 1-paragraph summary of the other person's 2-3-page summary.
- The resulting summary of a summary can be presented to the class.

Writing to determine comprehension

- Stop in mid-lecture and ask students to write a short list of everything they know about the topic or a sub-topic.
- Ask a few students to share the results of their "brain dumps." This technique can help students remain attentive and provide feedback to you about the students' knowledge or misunderstandings.

The Activities: For Groups

Note taking and revision

- Have a "Notes Completion" session.
- Ask students to exchange notes and fill in any gaps they identify.
- This technique helps them generate complete notes as they review the course material.

Editing the work of others

- Have students write short papers, exchange them, and edit each other's work.
- *Guided* is the key for successful reviews. Students will need specific instructions on how to edit the writing of others, so provide them with a writing review rubric that organizes criteria for grading.
- Model "constructive" criticism. Many students do not know how to explain their responses in helpful ways.

Guided peer review of written work can be extremely helpful. It emphasizes that students should always take the editing process seriously, and it gives them an idea of the process that the professor uses to assess student writing.

(This process could be done several times before the final paper is due.)

Visual-based Active Learning

The Intention

Visual media, such as films, videotapes, demonstrations, and even TV, have the advantage of being easy to deliver in most classroom or online environments and are inherently interesting to the current generation of students. In addition, because many visual media are temporal and active, rather than static, they can be used to show change and dynamic qualities, which can be especially useful in teaching the sciences or even dance.

But the same qualities that make visual media eye-catching may also mitigate its educational value. Although students may watch images on a screen with apparent interest, without your guidance, they likely will become passive receptors of visual data.

Whatever media you use, you should guide students in attending to certain aspects of the presentation through questions either delivered before the presentation begins or by periodically stopping the presentation to ask questions or have students draw connections. You may even want to describe to students how they should watch or attend to a visual presentation. (Viewers do not naturally examine the more subtle movements or sounds in a frame.) Unless a visual medium is used to trigger learning, regardless of its quality or instructional merit, it will most likely not be integrated into students' long-term memory or deliver concepts or information students can apply.

Note: Most visual media is temporal and, unless digitized, it will be especially difficult for you to locate isolated segments.

The Activities

Films

- Films, as well as other visual media, can be stopped and important segments viewed, discussed, criticized, or reflected upon.
- Students can be given questions to answer as they watch.
- Groups can be established to discover or examine specific points.
- One of the most interesting uses of this media technology is to allow students to film their own projects. Some have their own cameras; others can check out cameras from media centers or departments. The best of these films might be used in future classes.

Overhead projectors or presentation software

- Intersperse, among the slides, questions or activities for the students.
- Another way to get students active is to give them the overhead transparency and pen and allow them to do problem solving as individuals or groups.
- Just one reminder. Do not put your notes on presentation software, project it in your class, and then read it to the class!

Demonstrations

- During interactive demonstrations, ask students questions such as: "What will happen if…?"

Brainstorming

The Intention

Brainstorming, in which students are encouraged to generate as many ideas on the topic as possible without judgment or critique when they are made, can be used in many learning contexts, whether solving a problem, generating questions to ask about a visual presentation, or summarizing the key points of a lecture. The operant word in the definition of brainstorming is generating. Students can use this session as an opportunity to make connections, free associate, and recognize that they have been engaging with the topic in ways they may not have been aware.

The Activity

Group brainstorm

- Begin by asking a question or suggesting a topic.
- Have someone make a list of the ideas on the board or overhead.

These ideas can be the stimulus for a discussion to follow, topics for projects, topics with which students need assistance, or even important points that might be included on an assessment later.

Collaborative Learning

The Intention

Recent research suggests that individuals in small groups learn better than they do on their own or in isolation. In light of the research on active learning, this is not surprising, as a small group initiates collaborative learning and its resulting activities: students generate questions, discuss and arrive at conclusions, turn thought into written or oral language, etc.

Any size class can benefit from collaborative learning. With some modifications, groups can be successful even in very large lecture classrooms.

Some things to think about before you use collaborative learning:

- Some teachers have reported that **starting groups** at the beginning of the semester is difficult. Some time is needed for students to get to know one another. However, getting students in groups, especially in large classes, is a way to help them get socialized.
- There are **physical limitations** to grouping - plan for them. In a class with the chairs permanently attached to the floor, group size might have to be limited. Desks, chairs, and tables that can be moved will need to be moved. When students get in the habit of working in groups, they will do the rearranging. Try to arrange chairs so that: you can walk around to each group; you can speak to the class as a whole when you need to; all students can see projections or demonstrations while they are in their groups.

- Researchers say that effective groups have three or four members but there are other situations in which two students are effective. Some faculty members give each student a role in the group; others let students choose the role that best fits them. Teachers sometime assign groups; others let natural groups form. Some keep the groups the same all semester; others rotate members.
- Assessment of group work can be the most difficult aspect. Some students will reject being assessed as a group. Sometimes the group will contain a mix of laggards and gung-ho students. This is where clear instructions and precise elaborations on grading are important. Common methods of grading collaborative work move along a continuum from giving the group a grade as a whole to giving each student a grade depending upon the part he or she played in the group. Another idea is to let the groups do internal assessments of its members. Also, if a presentation to the class is involved other students could evaluate it.
- Explain the nature and value of putting students into groups. What will they be able to accomplish in a group more effectively than they could do alone? Be sure the group activity contributes toward meeting a desired learning outcome.
- Give clear directions to the groups before they physically move. Let them know what they should do in groups and what their product will be. To promote positive interdependence and individual accountability, outline the degree of collaboration you expect, and for longer-term projects, design enough tasks for every member. Determine if you or the group will distribute the workload and be clear about evaluation criteria. Will each student in the group receive the same grade?

The Activities

Group problem solving

- Stop the lecture to ask groups to solve a problem, do an activity, find the important points, or the most confusing point, create an outline, create a test question.

Think-pair-share

- This activity starts with each student working individually on a problem for a short time; then students pair up to compare, synthesize, and finish the assignment. Later they report to the whole class. This can be expanded to create a pyramid when those two students now work with two more, and then report to the class.

Debates

- Ask debaters (who might be a team) to debate issues based on verifiable evidence, to clearly state points, to logically organize issues, and to be persuasive.
- Those not participating in the debate are the judges. They should have or establish criteria upon which to base their decision.
- Non-participants should also record at least one point that the debaters on each side should have made but did not.

Peer Teaching

The Intention

You never really know something until you try to teach it to someone else.

Each time you step before your class, you marshal a range of skills and knowledge that, together, enable you to guide students toward comprehension of the course material. And you have most likely recognized that in preparing and delivering your course, face-to-face or online, you have come to master the material in a way that is different, and superior in some ways, to the mastery obtained through the role of student.

Any activity that requires your students to modify and broaden role and performance will encourage active learning.

The Activity

Teaching a topic

- Help students adjust to this new role by having them teach to a small group. Three or five students pose less of a threat and lessen the degree of failure or embarrassment a student/teacher faces.
- Remind them of all the active teaching and learning techniques that they could use and give them ample preparation time. Most students will not have a clue what you want them to do, so try modeling what you want them to do in their "teaching" experience.
- Instead of choosing topics in the required readings, choose topics that will supplement the class. This ensures that students do research on their own.
- Select some of the more effective students to teach to the entire class. You may wish to participate as a student and ask helpful or follow-up questions that require the student to extend herself.

Role Playing, Drama, and Simulations

The Intention

Role-playing can often stimulate affective qualities such as empathy, as well as understanding of concepts, points of view, and external constraints on personal action. Putting all the theories into practice, simulation can be the students' first chance to face the realities of what they have learned and the attitudes they have connected to the learning. Simulation is a growing topic on the Internet and a search in your discipline may show several simulations that you can use for your classes. Even in large classes the following activities can work.

The Activities

- **Adopt a role**
  - ◇ Assign a writing assignment to students while they are in the role of another person. What would that person do and what reasons would they have for doing it? How would that person feel?
  - ◇ Have a few students read or act out their writing.

- **Understanding Audience**
    - ◊ Ask students to discuss or write in one way for one audience and another way for another audience so as to demonstrate their understanding of how different audiences have different levels of knowledge on an issue and have different emotional investments in a conflict or issue.

For example, how would you explain to undergraduate students the accounting concept "return on investment," compared to how you might use it to persuade a client to buy a piece of property?

Problem-Based Learning

The Intention

Problem-based learning (PBL) begins with a problem prepared by the instructor that generally cannot be easily solved without data collection and mastery of subordinate skills. Students search for resources, and/or faculty guide students to information and resources. Instructors help students learn to frame the right questions, formulate problems in clear and organized language, explore alternatives, and make effective decisions.

The theory is that by solving problems students learn to generate procedures that they can use again should they encounter another, similar situation.

Some of the characteristics that make PBL ideal for active learning include the following:

- Students experience learning in a collaborative and supportive environment.
- Instructors enhance student motivation by providing real life problems.
- Students seek useful and relevant knowledge to apply toward job skills and employment.
- Students identify, analyze, and resolve problems using knowledge from previous experiences and courses, rather than simply recalling it.
- Students are self-directed in their learning.

The Activity

Plan and develop a solution

- Students confront a given problem in groups, organize prior knowledge, and attempt to identify the nature of the problem.
- Next, they pose questions about what they do not understand and then design a plan to solve the problem and identify the resources they need.
- Students must gather prior knowledge as well as information that they may not have understood in the past as they work to solve the problem.
- Solutions may be demonstrated to the class.

Team-Based Learning: A Strategic Approach to Collaborative and Problem-Based Learning

The Intention

Collaborative learning is generally characterized by students working in groups in some sort of learning activity. The basic concept is that they will be able to help each other learn better than if they were to study alone. One dilemma for the instructor is that collaborative learning requires group participation but individual accountability on the part of the student. Students who come to group activities prepared to discuss the topic, or engage in the activities are going to be able to contribute more than students who do not prepare.

So, how do you encourage students to come prepared? The answer is to grade both group performance and individual performance. In Michaelsen's (2002) book, Team Based Learning, he suggests a method where the students study the material outside of class. (*Michaelsen suggests you use the term team as opposed to group. Teams stay together and are permanent. Teams suggest a sense of purpose and direction.*)

When the students get to class, they take, as individuals, a readiness assessment test (RAT) over the material they were assigned to read. This is generally a multiple choice test over the reading content, which is collected when they finish. When everyone finishes, the pre-assigned group gets together, and **they take the same test as a group**, discussing the possible answers, and making a group decision on the best answer. Here they get immediate feedback whether their answer was correct or incorrect. One technique for doing this is to use a scratch-off answer sheet called the **IFAT** (Immediate Feedback Assessment Technique) that allows the group to see if they got the answer correct on the first try (5 points), second try (3 points), or third try (1 point). Each group only gets one scratch-off sheet. The groups hand in their **IFAT** sheets which are scored and the group score is added to the individual score for the knowledge test.

Teams are now given a critical thinking task that has them apply the material to a problem that does not necessarily have a correct or incorrect answer. The teams can then present their answers and give a rationale for their solution. A website devoted to Team-based Learning can be found at the University of Oklahoma website.

There is some research evidence that this approach supports critical thinking (Gokhale, 1995). Gokhale found that individuals in teams working collaboratively did no better than individuals working alone on factual knowledge, but they were significantly better on problems requiring critical thinking.

The Activity

- Assign the students to diverse (heterogeneous) teams of five to seven.
- Have a practice reading and readiness assessment test (RAT) session, so students understand the procedure.
- Have them decide how their grades will be determined (see Michaelsen).
- Divide the course into five or six units (two to three text chapters) – each to be initiated with a readiness assessment test (RAT).
- Prepare out-of-class assignments for the course.
- Prepare five questions over the reading that assesses the student's knowledge of what the reading said – this is the readiness assessment test (RAT).
- Prepare one or two "critical thinking" questions for each unit that take the reader into interpreting what it was the content implies – if you can come up with multiple plausible options, so much the better.
- At the start of each unit give the five-question RAT – collect the individual papers.
- Have teams of three to five students convene and take the RAT again as a group – hand it in for a group score or use the Immediate Feedback Assessment Test (IFAT).
- Let the groups discuss the critical assessment questions until they have a group response then have all the groups explain their responses. Students at this point may challenge items on the test.
- Debrief the assignment, giving everyone feedback about their responses, and elaborate on the topic being taught.

Case Studies

The Intention

Gleaned from real life, cases can help students explore the use of theory in practice. Students will learn to analyze, articulate their point of view, listen to others, bring about consensus, summarize, and then present their findings in several formats.

The Activity

- Cases must be found or written that relate to your learning objectives.
- After being assigned for students to read, cases can be used in several ways:

Class Discussions

- As always, you should begin the first use of case studies with guidelines for constructive discussion and criticism of other's ideas.
- Begin by providing students with questions they can use to examine the case; after studying one case, students can use the case as a model on how to proceed with other case studies.

Debates

- Many cases describe circumstances that will lead to a decision. Often there is not a "correct" decision. This type of environment is the perfect setting for debate.
- Use groups to debate the sides (there may be more than two) of the issue.
- Set up observers as judges and instruct them. Set other observers as timers.
- To make observers even more active, ask them to add additional points to the debate that were not covered.

Class Discussions

The Intention

Discussions provide opportunities for students to demonstrate their knowledge of what they are learning in the classroom, as well as allowing for clarification, questions, and expressions of opinion. As the instructor, you can provide immediate feedback and correct misunderstandings. Discussions can be used to:

- Help students learn to identify and evaluate the logic and evidence that forms the basis of their own and others' positions.
- Give students opportunities to formulate applications of principles.
- Help students identify and formulate problems using information gained in reading or lectures.
- Use the resources of members of the group.
- Help students learn to think in ways that are particular to the discipline.
- Gain acceptance for information or theories counter to previous beliefs of students.
- Get prompt feedback on how well objectives are being accomplished.

The Activity

Open-ended discussion

If the objective is to promote critical thinking, curiosity about the topic, or tolerance for opposing viewpoints, open-ended discussions are most appropriate.

- Use broad questions to get the discussion started, but students formulate the majority of questions and have more control of the discussion.
- Allow ample time for all students to respond and encourage a lateral rather than teacher-directed response pattern.
- Mediate the responses, reinforce learning, and redirect questions based on misconceptions.

Suggestions for Successful Discussions

Planning

- In your syllabus, emphasize that discussion will be an important **part of the course**.
- Define the **criteria for receiving full credit** for class participation, including such items as "integration of class experiences and materials, the development of pertinent ideas, insights, or points of view, the sharing of exemplary experiences, asking of crucial questions, or building on provocative points made by others" (Barnes-McConnell, 1978, p. 67).
- Define **clear objectives** for the discussion.
- **Schedule a discussion** a few weeks into the semester. By then you may know who can be called on to take a stand, summarize, clarify, or be used to move the discussion along.

Initiating

- Develop a **strategy for beginning** the discussion or re-starting it should it bog down: Will you call on a particular student to begin the process or ask for a volunteer? (The larger the class, the more likely it is that participation will have to be encouraged by calling on students.)
- Start with a **common experience, a question, or a controversy**. You might provide a concrete, common experience through a demonstration, film, or role-playing.
- Ask a relatively open question such as, "What are your immediate reactions to…?"
- A good way to pose a controversial issue is to first ask by a show of hands how many students take one side or the other.
- To control the discussion, ask for five statements of evidence or argument from each side, then statements of rebuttal. Write these statements on the board.
- Play devil's advocate when a class comes too quickly to agreement on a complex issue. But always debrief students when the discussion is over on the reasons why you took the opposing position.
- Offer an example if the problem you have posed appears too abstract. "Let me describe an example of how. . . "
- Allow sufficient wait time. Wait at least 10 seconds before rephrasing the question. Research indicates instructors rarely wait long enough for students to think and formulate their responses.
- Know the material. Be ready to deal with nuances and unexpected new interpretations and perspectives from the students. Decide the important facts, concepts, formulas, relationships, chronology, and figures that will shape the discussion.

Guiding

- As the class discusses, put items on the board or overhead transparency.
- Arrange the responses in a way that demonstrates relationships, depth, and possible contradictions (perhaps by developing a concept map). Write only what you want the students to recall of the discussion.
- Think of questions that promote discussion, not answers. Some questions should promote discussion of the "big picture" while others should probe each aspect of the concepts.
- Listen to the answer, to both the words and to the subtext of what the student is trying to convey. If the first answer does not address the issue at hand, ask a question that will direct students to think in a different way.
- Give and take control. There will be times when you need to control the direction of the discussion or to diffuse inappropriate remarks. At other times, the discussion must be allowed to flow without any overt control. A hearty discussion may not flow linearly, but as long as the essential points are addressed, do not impose rigidity.
- Move around, going closer to students who are speaking, moving toward students who are not participating to bring them into the discussion. Move away from those who try to dominate.
- Ask for responses in writing. To get discussions going, ask students to respond to a question in writing. Usually five minutes is enough. Encourage them to be creative by using the writing as a chance to brainstorm. Then invite oral responses. Often quiet students will speak up if they have the words before them. Also, written responses often lead to more reflective discussions.

Addressing Common Problems

- Ask for **responses in writing**. To get discussions going, ask students to respond to a question in writing. Usually five minutes is enough. Encourage them to be creative by using the writing as a chance to brainstorm. Then invite oral responses. Often quiet students will speak up if they have the words before them. Also, written responses often lead to more reflective discussions.
- Moderate the **student who talks too much**. Avoid looking in the direction of the student, as if inviting him or her to answer, even when no one else is responding. Try "Let's hear from someone who has not yet contributed." Another strategy is to raise the question of participation with the class, e.g., "Would the class be more effective if the participation were more evenly distributed?" You might also ask one or more members of the class to act as observers for a few class periods, reporting back to the class. Perhaps assigning the avid talker to the observer role would help sensitivity. Another technique is to talk to the student individually outside of class.
- Use reason to calm **the discussion that turns into an argument**. In good discussions conflicts will often arise. Here are some ways to resolve them:
    - ◇ If the solution depends on certain **facts**, ask students to provide the authority.

- ◊ If there is an **experimentally verified answer**, use the opportunity to review the method by which the answer could be determined.
- ◊ If the question is one of **values**, use the occasion to help students become aware of the values involved.
- ◊ List **both sides of the argument** on the board.
- ◊ Take a **strong position as moderator**, preventing students from interrupting each other or speaking simultaneously. Lay ground rules for discussion, such as asking students to focus the conflict on ideas rather than on people and to resist being judgmental.

- **Help guide students who make unclear or hesitant comments.** Encourage students making unclear contributions to give examples or restate points for verification; encourage hesitant comments by enthusiastic nonverbal cues and patience.
- **Right the discussion that goes off track.** Stop and ask a student to summarize when the discussion appears to go off track. Help students isolate that turning point and suggest how it might be refocused on the issue at hand.
- **Postpone the student who attacks.** When a student argues for the sake of argument, an instructor will almost always lose if he takes the bait. This situation often occurs when an instructor is going over exams or assignments. Simply give the student some recognition while firmly moving on. Do not discuss the controversial issue in the classroom; instead, tell the student you will talk with him or her after class.
- **Redirect the student who tries to embarrass the instructor.** Students may try to gain authority or diminish your own through comments such as: "How do you really know that…?" or "You're not really saying that…?" Respond by redirecting the attack by saying: "What I'm saying is…, but now I'd like you to share your perspective." Turning the question back to the questioner forces him or her to take responsibility for his or her opinion.

Concluding the Discussion

Good discussions end with a summary so that students know what important points were covered. The advantage of active learning techniques such as the discussion is that students have the opportunity to verbalize course materials for them selves and receive feedback in class from the instructor on how well they understood that material. In addition to showing students why the discussion was important to their learning, a summary provides the opportunity to fill in points that were not covered and to praise the class for the quality of their responses.

Adapted with permission from *Teaching at The Ohio State University:* A Handbook, Center for Teaching Excellence.

Questioning Sessions

The Intention

Using Socratic questioning techniques to proceed through a lecture, a problem solving session, a demonstration, or simply as a stand-alone can be an effective active learning technique. Students learn to process concepts and information and to articulate that knowledge. Whether the questioning session works depends on how you ask, phrase, and pose the questions.

The Activity

Forming questions

To reach the higher levels, you will have to ask question that go beyond recall.

Comprehension:	Retell
Application:	How is … an example of…? How is … related to…?
Analysis:	What are the parts of …? How would you compare/contrast … ? What evidence is there for…?
Synthesis:	What do you predict/infer…? How would you create/design…? What would the result be if you combined…?
Evaluation:	What are your points of agreement/ disagreement and why? What criteria would you use to …?

Even when you pitch your questions at a particular level your students may not answer at the same level. Restating your question while emphasizing the type of answer expected might lead students to begin thinking at higher levels. Once again, when students understand what is expected they will perform better.

More recommendations for questioning

- Focus questions on learning objectives.
- Phrase questions clearly and specifically.
- Ask questions geared to the level of students.
- Keep questions in sequence.
- Ask questions at different cognitive levels.
- Follow up on student responses.
- Give students time to formulate responses.
- Use questions that invite wide participation.

Examples of open-ended questions

- Why is there an energy crisis?
- What are some of the reasons we don't use more solar energy to reduce our dependence on oil?
- How does this relate to theories of diffusion and adoption of innovation?
- Given the medical data before you, how would you go about diagnosing this patient's problem?
- Does anyone have a comment on X's response?

*Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. ASHE-ERIC Higher Education Report, No.1. Washington, DC: George Washington University, School of Education and Human Development

Additional Active Learning Activities

Writing

- **One-minute papers**

  Ask students to write on something they should have learned in class that day, something that is still not clear, questions they have, the main point of the lecture, critiques of the ideas being presented, or the part of class that helped them learn more. This can also be an alternative to calling or checking roll so the time is a trade-off.

  - ◇ At the beginning or end (or even in the middle) of class, ask students to submit a one-minute paper.
  - ◇ To limit the size of the responses in large classes, ask students to write their responses on a 3x5 card.
  - ◇ You or the students can provide feedback during the next class to selected questions.

- **Research summaries or abstracts**

  Much shorter than a research paper (perhaps one page), this method can still get the student to do the research.

  - ◇ Ask students to write a summary, analysis, and/or their reflections of a particular research article.
    - These may be exchanged among students and a consensus reached for submission to the professor.

- **Keeping a journal**

  Some successful journal activities have students relate theory to practice, concepts to reality, or show evidence of their learning, individual insights and questions about course material.

  - ◇ Before you ask students to keep a journal, plan specifically what should be in their journals.
  - ◇ Provide feedback at least three times a semester.
  - ◇ Be selective in the reading of journal entries.
  - ◇ Ask students to organize and mark entries that you will read.
  - ◇ Or ask them to select their best entry and mark it for you to read.

- **"How to" piece**

  Have students describe a solution to a problem. This can help students slow down and organize steps to accomplish something, analyze the relationship between steps, and begin to critique their own way of telling. This method can help in mathematics, sciences, or business to include those students whose writing skills may be better than their skills in these other areas.

  - ◇ Ask students to write complete instructions about "How to…"

- Give one student's instructions to another student and ask him or her to follow the instructions as written.
- Let the class decide if adequate instructions were given.

Visual-based Learning

Outlining, flow charts, webs, and concept maps

Charts, diagrams, webs, maps, as well as pictures, can be used as visual examples of abstract concepts. Concept maps, in particular, are concerned with relationships among ideas. They help students decide the important points and how they relate to each other.

- Ask students, individually or as groups, to develop one of these visual structures.
- Members of groups can be asked to come to a consensus and present one form to the class.
- These can also be shared, discussed, and synthesized into one in class.

Lecturing

Intentional errors

- Make an intentional error in class. You can usually make the error that is commonly made by students.
- Continue into absurdity until students question and correct you.

Collaborative Learning

- **Collaborative writing**
  - A collaborative writing assignment can be organized in several ways. Try to avoid giving one person all the work. One example might be to get a group to break down a writing assignment into parts; each student writes his or her part and then brings it to the group for compilation and editing.

Resources for Active Learning

The following is just a sampling of resources you can find on Active Learning. An Internet search of Active Learning will return thousands of references. Use the resources listed here to get you started in your search.

Broad Overviews

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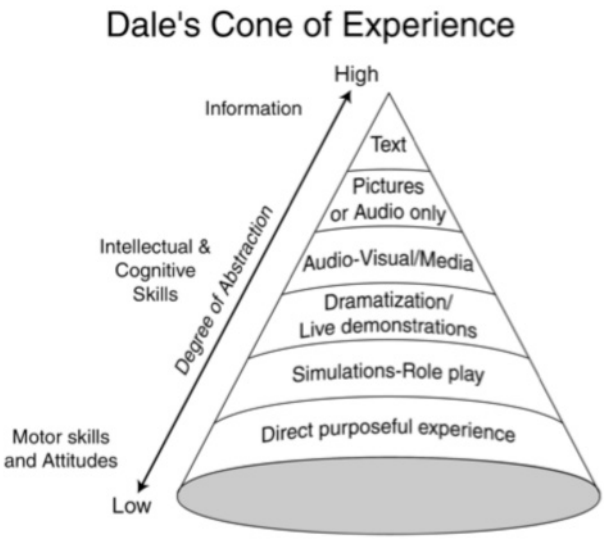
Chapter 9 - Instructional Media: Chalkboards to Video

Different types of educational experiences exist - from hands-on apprenticeships to role-playing, from demonstrations to reading printed text. Some educators believe that different experiences are more or less effective for achieving different types of instructional outcomes. For example, text with pictures is not as effective as live demonstrations for teaching motor skills. Instructors who are considering the use of media should ask themselves, "How do I expect the media or type of learning activity to make learning more effective?"

- **Types of Instructional Media**
- **Why Use Media in Instruction?**
- **Media Used to Enhance Presentations**
- **General Presentation Guidelines**
- **Instructional Strategies Involving Media**
- **Resources on the Use of Media**

Types of Instructional Media

- Real objects and models
- Printed text (books, handouts, worksheets)
- Printed visuals (pictures, photos, drawings, charts, graphs)
- Display boards (chalk, bulletin, multipurpose)
- Interactive whiteboards
- Overhead transparencies
- Slides and filmstrips
- Audio (tape, disc, voice)
- Video and film (tape, disc)
- Television (live)
- Computer software
- The Web



The diagram shows how Edgar Dale's "Cone of Experience" (1969) - organized learning experiences according to the degree of concreteness each possesses. At the bottom is hands-on experience. As you ascend the cone, concrete experience begins to drop out, with stimuli becoming more abstract; the stimuli require more skill on the part of the learners to interpret the messages they carry. You can see why lectures, even illustrated lectures, are considered to be some of the most abstract types of presentations. For certain types of learning (such as changing attitudes or teaching motor skills), experiences at the bottom of the cone are more appropriate than those at the top.

Learning experiences at the bottom of the cone tend to hold student attention longer and involve active student participation. Media at the top of the cone are said to be more passive but are suitable for transmitting large amounts of information quickly. Which is best depends upon your purposes and circumstances. While the Web is becoming popular for distributing other types of mediated messages, it is not always practical, and other types of media are more appropriate.

Why Use Media in Instruction?

As a rule, educational experiences that involve the learner physically and that give concrete examples are retained longer than abstract experiences such as listening to a lecture. Instructional media help add elements of reality - for instance, including pictures or highly involved computer simulations in a lecture.

Media can be used to support one or more of the following instructional activities:

- **Gain attention.** A picture on the screen, a question on the board, or music playing as students enter the room all serve to get the student's attention.
- **Recall prerequisites.** Use media to help students recall what they learned in the last class, so that new material can be attached to and built upon it.
- **Present objectives to the learners.** Hand out or project the day's learning objectives.
- **Present new content.** Not only can media help make new content more memorable, media can also help deliver new content (a text, movie, or video).

- **Support learning through examples and visual elaboration.** One of the biggest advantages of media is to bring the world into the classroom when it is not possible to take the student into the world.
- **Elicit student response.** Present information to students and pose questions to them, getting them involved in answering the questions.
- **Provide feedback.** Media can be used to provide feedback relating to a test or class exercise.
- **Enhance retention and transfer.** Pictures enhance retention. Instructional media help students visualize a lesson and transfer abstract concepts into concrete, easier to remember objects.
- **Assess performance.** Media is an excellent way to pose assessment questions for the class to answer, or students can submit mediated presentations as classroom projects.

Media Used to Enhance Presentations

The Chalkboard or Whiteboard

FSU has replaced the ubiquitous chalkboard with whiteboards in most classrooms. The whiteboard is one of the most basic forms of instructional media and is best used for emphasizing essential information and developing ideas as the class progresses.

- Put assignments due, the next assignment and due date, and the day's lesson objectives on the board before starting the class.
- Use the board to present a problem the class should be thinking about during the lecture.
- Use the board for graphics as well as text and formulas.

When Using the Whiteboard

- Include a whiteboard plan in your lesson outline that determines which aspects of the lesson will be illustrated on the board — list of concepts to be learned, timelines, outline for the day's presentation.
- Bring your own markers to class and carry plenty of spares.
- Use different colored markers to highlight important aspects of the lesson.
- Write neatly and horizontally, making certain your handwriting is large enough for students to read. Board work should be organized so that students will be able to interpret their notes later.
- Write on the board in several places (top, bottom, right side, left side). Go to the back of the room to see if you can read what you have written from any location. Be sensitive to obstructions, including the heads of students, overhead projectors, etc., that may block the lower part of the board.
- Give students time to copy what has been written.
- Avoid modifying the board while students are copying information.
- Talk to the students, not the board. With a little practice, you will find that you can write while you are partially facing the class.

Document Cameras

Document cameras are located in many of the general purpose and technology enhanced classrooms on campus. With a document camera, you can display documents, books, graphics (e.g., pictures, charts, and maps), and three-dimensional objects and project them so even students in the back of the class can see.

In most cases, the same rules that apply to the use of the chalkboard also apply to overhead projectors. Overheads, however, have several advantages — transparencies can be prepared in advance of the class, and it is easier to prepare graphics and pictures for the overhead than for the chalkboard.

Tips for Using the Document Camera

- The camera is best turned off when you are not directly referring to information on it. Many instructors use a piece of blank paper to cover part of a document so that only the point being developed is revealed.
- When preparing documents for display on the camera, use san-serif fonts such as Arial, Helvetica, or Tahoma in a 24 pt. or larger font size. Margins should be set at 1 ½ inches to avoid information being cut off the sides. When writing on displayed documents, use a medium to wide stroke marker and print clearly.
- Avoid using white paper as it produces a glare when projected. Blue paper or other similar pastel is a better choice. Likewise, three-dimensional objects are projected more clearly when placed on a darker background rather than on white paper or directly on the camera platform. Practice with different backgrounds to see which works best for you.
- Glossy paper in magazines and books may not project well because of glare. Practice with the camera settings before class to reduce glare or if possible consider copying the image onto different paper.
- Avoid the rapid paper flip. Consider placing your stack of papers on the cameral platform and sliding a sheet off when you are finished rather than taking off and repositioning a new sheet every time you change documents. Leave the document on long enough so the students have time to take notes but not past the point where you are finished talking about it.

Resource

If a scheduled classroom does not contain a document camera, you can book one online at Technology Enhanced Classrooms at http://condor.tecad.fsu.edu

LCD Projectors

The University has invested heavily in modernizing classrooms and lecture halls to take advantage of instructional technology, including LCD projectors. LCD's used with a computer project an image onto a screen or blank wall - and provide more instructional flexibility in the types of content that can be used in a classroom. Classroom Support will train instructors on how to use the LCD Projectors as well as other classroom technology.

Advantages of LCD's

- Since slides are stored in files on the computer, they can be made accessible to students or other instructors.
- Presentations are easily made using PowerPoint or other software applications. PowerPoint can also be used to prepare handouts and content outlines.
- Some instructors post their PowerPoint slides to their course sites so that students may download them for study purposes.
- Many of FSU's classroom technology installations include connecting a videocassette player and a document camera to the computer. This installation allows instructors to project videos or images directly from a book to the screen through the LCD projector.

Instruction through the Use of LCD's

Students prefer consistent presentation of information. Consider standardizing the usage of your LCD slides, keeping in mind the following:

- The opening slide might be the title or main theme of the day.
- Subsequent slides might be key terms, discussion questions, and important concepts.
- Use the slides to tell a story. Talk to the students, not at them.
- Involve the students in discussion of the visuals.
- If you use slides regularly, the final or ending slide will become a signal to the students that class is over, with accompanying lack of interest and closure. Instead, use the last slide as a discussion device to allow students to synthesize information and bring closure to the topic.
- While using a standard series of slides, vary the layout and color for each lecture. All presentation software allows the choice of different backgrounds and color through the use of templates or master slides.
- Use sound clips, animations, and clip art with discretion.
- Avoid using too many slides. A good rule of thumb is to spend two or three minutes per slide.
- Be careful about infringing on another author's copyrights. If there is any doubt, get permission and inform students that you have permission.

Personal Response System

FSU classroom technical support has equipped a number of classrooms with student response system technology (often referred to as "clickers"). This electronic technology allows instructors to monitor attendance, conduct real-time surveys in the classroom, and elicit student performance feedback through quizzes and real-time surveys. In its basic configuration, the system consists of wireless, hand-held, student transmitters (clickers) and an instructor-controlled receiver-displayed unit. The system supports a number of display formats including bar graphs and numerical distributions.

Tips for Using Clickers in the Classroom

- Use the clickers everyday so students will get used to bringing them to class.
- Spread clickers questions throughout your lecture so students remain engaged but do not offer so many questions that it becomes tedious for both you and them.
- Always have a couple of extra clickers on hand for students who may forget theirs, but create an expectation that students must be prepared for class by bringing their clickers with them.
- If you are using clicker questions for quiz grades, reduce the possibility of cheating by keeping the point value of the quizzes low.
- Always have a back-up plan! Technology is a wonderful tool, but it can sometimes have glitches. Have an alternate plan for what you will do if the system does not work for a given lecture.

Video or Film

- Using video or film in classroom instruction has the advantage of presenting abstract ideas in a realistic context, which helps students grasp the abstract ideas more easily and to retain the material longer.
- For more information on using clickers, visit http://cat.fsu.edu/clickers/index.cfm

Examples of Use

Filming students' in-class presentations and viewing the tape together offers students the opportunity of seeing themselves in action.

In an English class, a TA might show students a scene from a Shakespearean play to set the context for a lecture.

A political science instructor may use a tape of a politician who visited campus, or whose remarks were broadcast on C-SPAN.

A chemistry class may be shown a videotape of an important, but dangerous and expensive, experiment.

In a communications class, the students themselves could be taped during a problem-solving session. Later, they can analyze the group interactions that occurred.

In a statistical methods class, students can watch an online video overview of how to set up tables in SPSS that was recorded by the instructor using Camtasia, a screen capture and recording software.

When Using Video in the Classroom

- Do not show the entire tape/DVD if there is no need to do so. Think about why you are using the video and show only the applicable portions.
- Relate the video to what is being discussed in class and discuss relevance to every day issues or problems.
- Prepare a set of questions taken from the video that students might discuss or answer. Prepare students by providing an outline of the video's main points on the document camera, whiteboard, or handout so that students know what to look for as they watch.
- Since video only presents a one-way flow of information, compensate for this lack of involvement by encouraging dialogues in other areas of the class such as group discussion.

When Using Video Online

- Online video can be used for screen capture and recording, simulations, demonstration of processes and other visual illustrations.
- Keep the length of the video short, no more than 3 – 5 minutes and follow up with a set of questions or an activity to be completed to hold students' attention and keep them on task. If the video is long, break it up into 3 – 5 minute modules for easier viewing with questions or points to consider in between.

- When using web-based media, be certain to inform students of general technical and computer requirements and provide links for downloading the necessary plug-ins and media players.

General Presentation Guidelines

Guidelines for a Variety of Instructional Media

- Visual aids should augment the presentation; they are not meant to be the entire presentation.
- It is important to be able to teach without them. Instructional aids may arrive late, or not arrive at all. Also, something may go wrong or break down. Even careful planning cannot cover every possibility.
- It is imperative that all instructional media are previewed before they are used in class or online. This will familiarize you with content and structure, as well as ensuring that no unfortunate (and sometimes embarrassing) mix-ups have occurred.
- Visuals are best kept simple, with minimal wording. They should always be readable from a distance (when reproducing from texts and enlarging graphics). You can practice using the visual aids in the actual classroom before the lecture begins.
- The audience's line of vision should not be obstructed.
- Visual materials should be displayed only when the instructor is ready to use them, and they should be kept visible until the students have finished taking notes. You should remove the materials when you are ready to talk about something else, signaling that it is time for discussion or noting a subject change.
- Effective instructors talk to the students, not the visual aids.

Instructional Strategies Involving Media

While it is necessary to talk about how media might improve classroom lectures, the reality is that there are more effective types of learning activities. Probably the most studied and research-based movement in the use of technology today is being done by Vanderbilt University in the areas of situated cognition and anchored instruction.

Situated cognition defines understanding as partially being a function of the context in which it is learned. Most of us have experienced a situation where we have learned something, but we cannot recall it when we need it. Or that we know that we should be able to solve a problem but the details escape us. This is known as inert knowledge. One reason for this lack of recall, according to John Seely Brown and others (1989), is that the knowledge was learned in a sterile classroom situation and was never applied in a real world context.

One instructional technique to reduce inert knowledge is anchored instruction; that is, to instruct using an experience common to the students. Instructors at Vanderbilt create an anchor by showing a 12-15 minute video clip that presents the context for problem solving. All the data the student needs to solve the problem is contained in the video. Students work together in groups to find the data they need and solve the problem. The students present and defend their solutions, and the instructor provides feedback.

Most collaborative learning situations today involve the use of media in some way. The Web provides a way for students in different locations to collaborate on problem solving and learning. (For details on using the Web as an instructional media tool, see Chapter 10 - Using Course Websites as Instructional Tools.) The realization that learning is a social as well as a mental process is important to the understanding of how media can improve learning.

Resources on the Use of Media

Books/Articles

- Azarmsa, R. (1991). *Educational computing: Principles and applications*. Englewood Cliffs, NJ: Educational Technology Publications.
- Brandt, R. C. (1986). *Flip charts: How to draw them and how to use them*. Richmond, VA: Brandt Management Group.
- Brown, J. S., Collins, A., & Duquid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, 32-42.
- Dale, E. (1969). *Audiovisual Methods* in Teaching (3rd ed.). NY: Dryden Press.
- Davis, R. H., & Alexander, L. T. (1977). *Guides for the improvement of instruction in higher education: Vol. 4*. Effective uses of media. East Lansing, MI: Michigan State University, Instructional Media Center.
- Diamond, R. M. (1989). *Designing and improving courses and curricula in higher education: A systematic approach*. San Francisco: Jossey-Bass.
- Horton, W., & Horton, K. (2003). *E-learning tools and technologies: A consumer's guide for trainers, teachers, educators, and instructional designers*. Indianapolis: John Wiley & Sons.
- McKeachie, W. J. (1986). *Teaching tips: A guidebook for the beginning college teacher* (8th ed.). Lexington, MA: D.C. Heath.

- Newble, D., & Cannon, R. (2000). *A handbook for teachers in universities and colleges: A guide to improving teaching methods* (4th ed.). New York, NY: Taylor & Francis Group.
- Newby, T. J., Stepich, D. A., Lehman, J. D., & Russell, J. D. (1999). *Instructional technology for teaching and learning: Designing instruction, integrating computers, and using media* (2nd ed.). Upper Saddle River, NJ: Prentice Hall Career & Technology.
- Pettersson, R. (1989). *Visuals for information: Research and practice*. Englewood Cliffs, NJ: Educational Technology Publications.

On-Campus Offices

There are a variety of other media that can be considered, as technology develops to make classroom applications more varied.

- Office of Distance Learning
  - ◇ The Office of Distance Learning (ODL) can acquaint anyone who works in the classroom with recent developments in interactive video, computer-based instruction, and other instructional media.
  - ◇ The Online Course Development and Faculty Support Unit - ODL's full service studio includes on-demand video and audio production, reproduction of materials within copyright restritions, and use of MediaSite streaming.
  - ◇ Technology Enhanced Classrooms, part of University Computing Services, trains instructors to use the high-tech classrooms.
  - ◇ The Scholar's Commons Digital Media Services Unit at Strozier Library - Provides resources and media self-service for faculty and students.

Related Chapter

See Chapter 10
Using Course Websites as Instructional Tools.

Chapter 10 - Using Course Websites as Instructional Tools

Using its long history of developing and offering face-to-face instruction and its large investment in technology, Florida State University has developed online instructional tools for use in the traditional classroom, the web-enhanced class, and in fully online courses.

- **The Development of Online Learning**
- **Interactive Multimedia - Advantages and Overcoming Limitations**
- **Using the Web to Teach**
- **Planning for Web-based Learning**
- **Completing the Alternative Modes of Instruction Form**
- **Instructional Tools of a Course Website**
- **Learning How to Use Course Websites**
- **Introducing Students to Online Learning**
- **Website Resources on Online Teaching**

The Development of Online Learning

History of Distance Learning

The simplest definition of distance learning is learning that takes place when the instructor and student are not in the same room, separated by physical distance. Whether the instructor and student are across campus from one another or thousands of miles apart, they remain connected via some form of technology.

Since the first correspondence courses were offered in the late 19th century, the technologies used in distance learning have evolved considerably, from mail to radio, from local educational television stations to the latest media - computers, telecommunications, the Internet, and the World Wide Web. The Web, a computer network capable of delivering many different types of media, has contributed to the growth of interest in distance learning. Because of the Web's delivery and communication capabilities, the types of learning events that can take place are expanding. With the development of the Web, "distance" has become "online" learning. (See **Web-supported Courses**.)

Synchronous versus Asynchronous

The communication terms "synchronous" and "asynchronous" refer to the element of time in course interactions. Synchronous communication occurs when there is a simultaneous learning experience. Instructor and students communicate at the same time, i.e., in "real time." Synchronous online communication can take place via text (instant messaging, chat tools, and "virtual classrooms"), as well as via interactive audio and video conferencing.

Asynchronous communication offers participants more choices of where and when to engage in learning. An example would be a web-based course in which the instructor posts a lecture and assignments online for students to view, complete, and submit at another time. Another example would be a "threaded discussion" forum in which students post messages and responses over a period of days or weeks.

While synchronous communication may seem most desirable due to its similarity to the traditional classroom experience, there are limitations. One limitation is complexity: due to the limited number of communication channels available in an online environment, conversational turn taking becomes a more involved process (who is responding to whom? whose turn is next?). There also may be issues of complexity in the tools used for synchronous interaction that can put some students (e.g., the disabled) at a disadvantage.

Another limitation is bandwidth, especially with regard to synchronous audio and video interaction. The more data an instructor wishes to transmit - whether the data is text, sound, pictures, or all three - the higher the bandwidth requirements for all participants. Because broadband Internet connectivity is not yet universal, it may be difficult or impossible for instructors to interact synchronously with all students.

A third limitation to synchronous communication relates to student needs. Many online learning students hold full-time jobs, are busy raising families, and may well be located in a different time zone than the University. The online programs in which they are involved may have been marketed with asynchronous convenience touted as an important benefit - the very reason they have enrolled at FSU rather than elsewhere. Thus, even if issues of complexity and bandwidth have been surmounted, there may still be good reasons to employ asynchronous methods of interaction in a web-based course.

Explanation of Terms

The terms "media," "multimedia," and "interactive multimedia" have recently entered our lexicon; yet have become almost meaningless due to their overuse and/or misuse. An explanation is in order if you are to understand the varied uses of these terms.

- Media - First, the simplest definition. The word "media" (plural for "medium") is so commonly used today that it is becoming a collective noun in the singular form, as with the word "data." In the context of computers, media

generally refers to: 1) the objects on which data can be stored (e.g., disks, CD-ROMs), and 2) the form and technology used to communicate information – audio, video, graphics. Media enables students to reread lectures, which they may have missed in class while taking notes.

- Multimedia, then, refers to the use of computers to present concurrently, in an integrated manner, more than one medium - text, graphics, video, animation, and sound. Any website can be viewed as a multimedia presentation, even if it simply contains text and images (e.g., a lecture with graphics). A plus of multimedia in instruction is the ability to present information in various formats to accommodate the various ways students learn (e.g., visual, auditory) and to use the media to suit the subject or learner (e.g., assigning kinesthetic homework).
- Interactive multimedia - Multimedia are interactive when the audience has some control over the display or presentation. This user control or reaction to input distinguishes them from, say, motion pictures. Interactive multimedia runs from high interactivity, as with video games, to online forms, which give fewer options for user interaction (you simply fill in the blanks).

  Interactive multimedia can be both synchronous and asynchronous. In a live videoconferencing session (synchronous interactive multimedia), the instructor can query students, who then respond, which may stimulate further discussion from other classmates. Students taking quizzes on a course website and then receiving grades for their performance, and corresponding with their classmates or instructor via discussion boards, are examples of asynchronous multimedia interaction.

In both of these examples, however, the activities are no more interactive than in face-to-face classroom participation. The degree of interactivity does not increase but the quality may increase. Students working from a computer have more time to ponder a question before responding than they would if they were in the classroom. Instructors find that e-mail or discussion boards enable their students to have in-depth and uninterrupted discourse. Students who are timid about speaking out in class feel freer to express their opinions online.

A good relationship between instructor and students, making them feel they are getting a personalized education, does not just happen by posting lectures and a syllabus online. Quality interaction with students takes effort.

The Future

The future of online learning lies in the further integration of multimedia platforms. Multimedia is both an evolution and a convergence of technology. Computing, television, printing, and telecommunications are all converging. Also, as the costs of communication technologies decrease, it is likely that an entire infrastructure can be built – and accessed – by most people in the developed world. A fiber optic infrastructure would allow for larger bandwidths and thus the delivery of more integrated multimedia to homes and offices.

Interactive Multimedia: Advantages and Overcoming Limitations

Advantages	Overcoming Limitations
Better learning and retention Interactive multimedia provides multiple learning modalities and actively involves the learner.	**Limited modalities** Limited bandwidth makes real-time information transmission impractical, but this limitation has forced instructors to become better organized and more reflective.
Addresses different learning styles and preferences The incorporation of multiple modalities provides opportunities for teaching individual learners. **Example** Those with weak reading skills can use aural and visual skills to process verbal information.	**Limited imagination** Most software has limited capacity for genuine interaction with learners. Most computer-based instruction relies on simple multiple choice or true-false questions for assessing the learner's progress. It does not have the diagnostic capability of a good instructor. But this forces instructors to be creative, to find learning activities that do not rely on simple assessment tools.

Advantages	Overcoming Limitations
Effectiveness across learning domains Interactive multimedia instruction has been shown to be effective in most learning domains. It can present simulations that provide opportunities for problem-solving and higher-order thinking skills, and even to address affective components of learning.	**Equipment requirements** Although equipment is becoming standardized, and multimedia capabilities are built into operating systems like Windows, problems remain in getting everyone hooked up to all of the capabilities of the Web, especially those with older equipment. But hardware and software costs can be included in financial aid applications, and through University licenses, both can be purchased at reduced prices. Also, students can download free software.
Realism Interactive multimedia provides a high degree of realism. Instead of merely reading about a speech by Dr. Martin Luther King, students can actually see and hear the speech as originally presented.	**Start-up costs** Some students cannot afford to purchase the technology needed to participate in computer-based instruction, but such technology is already considered to be standard course material. Students are expected to own computers or use campus computer labs.
Motivation Learners show consistently positive attitudes toward interactive multimedia. For today's MTV-conscious youth, multimedia instruction is a natural avenue for exploring the information revolution.	**Entertainment value might outweigh educational value** The computer and the Web are time sinks, with diversions that can interrupt concentrated and focused study and work. However, such distractions can be overcome by putting responsibility for learning on the student. Instructors can then create activities that actively involve students. **Example** After students have read a chapter in the assigned text, query them about the content.

Using the Web to Teach

Any course offered through FSU may add a course website. Website uses vary from simply enhancing a face-to-face course to exclusive use for online learning courses. The following definitions may help clarify the use of the Web for teaching.

- **Web-supported course** – Any face-to-face course that uses a course website.
- **Online course** – Any course offered via the Internet that has no face-to-face requirement
- **Distance course** – A course offered through a distance program; generally web-based but may have some face-to-face requirements.

> **Example**
>
> The RN-to-BSN Nursing online degree program requires on-site practicum.

Web-supported Courses

If you simply want to enhance your face-to-face course by using the Web, there are two major uses – to make course content available to students and to use for online activities.

- **Make Course Content Available to Students**
  - **Post materials on your course website for students to view or print** – course syllabus, assignments, the calendar or schedule, written lectures, articles – just as you would hand out materials in a face-to-face class. The material you post remains available throughout the semester (or until you remove it), and will eliminate the expense and labor of making copies for your class.
  - **Connect students with material from other websites.** You simply provide a clickable hyperlink (website address) on your course website, which eliminates copying articles or material, using the reserve system at the library, or otherwise distributing paper. Of course, not every journal or book can be viewed online, so in some cases the hard copy version may still be necessary. On the other hand, many resources are only available via the Web.
  - **Post timely information on the Announcements page,** which is an electronic version of a bulletin board.
  - **Receive and return assignments (as files) through the Assignment Tool,** which is a kind of electronic mail slot.

- **Use for Online Activities**

Just about any activity students do in class can be adapted to the online environment. You can use a course website as an electronic classroom or meeting space where students engage in activities and complete assignments, from taking quizzes online to participating in class discussions and collaborating on projects.

Some of the tools available on a course website are:

- **Discussion Board** – You can moderate a class discussion on a designated topic; class members may post input or responses at any time. The entire history of the discussion is viewable, so no one needs to rely on recall.
- **Group Pages** – You can assign students to groups and provide a private group space where group members use communication tools to collaborate on assignments, activities, and discussion topics.
- **Send E-mail** – You and your students have access to e-mail forms, pre-addressed to individual class members.
- **Virtual (Online) Chat** – You and your students can engage in text-based interaction and share presentations and web resources in real time. (This tool is best used for quick exchanges on less-weighty topics. Discussion Boards are better suited for topics that require more elaboration.)

Reference

- See Learning How to Use Course Websites for a list of the various training methods available.

Online and Distance Courses

As of the date of this publication, FSU has online and distance courses for three undergraduate degree programs – Computer Science, Interdisciplinary Social Science, and Nursing – and 14 graduate degree programs – Adult Education (major in Human Resource Development), Business Administration, Communication Disorders, Criminology (major in Criminal Justice Studies), Educational Leadership, Information Studies, Instructional Systems (major in Open and Distance Learning; major in Performance Improvement & Human Resource Development), Insurance/Risk Management, Mathematics Education, Nursing, Physical Education, Science Education, Social Work, and Special Education. The number of online graduate degree programs is continually increasing.

Reference

- If you are interested in creating an online or distance course (or program), talk to your department chair. If the department chair likes the idea, he or she can get help on any facet of online education from the Office of Distance Learning. See Chapter 15 - Support and Resources for a list of contacts and phone numbers.

Time Involvement

The actual time it takes to get a website up depends upon your goals as well as your computer and Internet experience. You can learn to post basic documents – course syllabus and schedule – in one 2-hour workshop.

Reference

See Learning How to Use Course Websites for the various training methods available.

Learning to set up and manage an online discussion and to use many of the other course website features, such as the Assignment Tool, will take more time. Development of more complex materials such as interactive web simulations and audio/video components can add significant time and complexity (even as they make the course a more powerful learning experience). However, once you have created and uploaded material or created discussion boards, the online course can be copied forward from semester to semester, allowing you to concentrate on enhancing and improving your course in future offerings.

Online Communication and Time

The Web's open avenues of communication can be both a blessing and a curse. Students can get information via your class website that you otherwise would distribute during class time; yet some online material is difficult or illegal to copy or reproduce. Some students who would never talk in class will "talk" on the website. The Internet has offered not only more communication tools and access, it also has engendered an "always on" or "24/7" culture. Whereas strictly face-to-face classes have prescribed meeting times – and thus interaction times – many activities in web-supported or online classes are asynchronous; therefore, students can work and think about your classes outside of "standard" class meetings. So, offering a web-supported or online class can increase the amount of time you spend communicating with students. While this is good for education, it does place the burden on instructors to organize and manage online communication.

Planning for Web-based Learning

Planning the Components of a Course Website

As in all courses, the quality of the instructional planning maximizes the learning for all students. In the Web environment, answers to two questions are especially valuable.

- What components will enhance teaching and learning?
- What components will save time by being posted for students to access online?

At the most basic level, instructors can post content and

announcements at a course website. However, course planning usually begins with a course map – an outline of topics, weeks, objectives, activities, assignments, and assessments to show alignment of course components with each other in a weekly calendar format. Planning also includes the purposeful design of activities to create a student learning community – supportive student groups in a course that develop with the students' active access, pursuit, generation, and evaluation of information and learning in their discussion, chats, and e-mail communications.

Related Chapter

For further guidance, see "Teaching the Discussion Class" in **Chapter 11 – Teaching Contexts**.

Examples of Possible Course Website Components

- **Course Syllabus** (See Chapter 3 – Creating a Syllabus for details on what your syllabus should contain.)
- **Staff Information**
- **Student Information**
- **Course Calendar** – Due dates for readings, activities, assignments, quizzes, and exams
- **Weeks (or Units or Topics)**, which could include:
  - ◇ **Assignments and Activities,** including directions and due dates. For face-to-face classes with web-enhancement, you may wish to include required assignments, even if minor, for extra points to be turned in at the scheduled class times or other incentives to maintain class attendance.
  - ◇ **Course Documents** – For reference, study, or answers to frequently asked questions
  - ◇ **Lectures** – Notes and audio to highlight key concepts of course content
- **Communication Tools** – Areas for sending and receiving e-mail, participating in group or class discussions about particular issues, keeping electronic journals, completing "dry or simulated lab" exercises to prepare for "wet or real lab" experiences, or engaging in chat sessions. Many students are able and willing to participate more fully online than in face-to-face classes, especially when discussion assignments require each student to post a comment or the results of a brief assignment and to reply to a comment or question from other students.
- **Student Tools** – Areas for using the Assignment Tool to send and receive completed papers, homepages, or personal profiles of students, and access to grades.
- **Assessments** – Areas for quizzes, exams, and surveys; online grade books; and assessment statistics.

Clarity of Performance Expectations

It also is critical to make assignments and performance expectations clear and specific, so that students know exactly what you expect.

Examples

"Send your e-mail to 'x' by noon Thursday, 'date and year,' describing your topic and plan of procedure, in 2-3 paragraphs of 2-5 sentences each."

"Submit your midterm by noon Thursday, 'x' date and year, according to the instructions and requirements listed at 'x' location on the course website."

Engineering Activity Using Online Discussion

Homework #6 Discussion Questions

Part 1: Answer Three Questions
Complete all of Part 1 by 11:59 p.m., Friday, November 17.

Please answer the following three questions about your homework assignment. Use a word processor to compose your answers, and then copy and paste them as a reply to the Discussion Board.

1. What concepts did you need to know to complete your homework assignment successfully?
2. What parts of the assignment were particularly difficult, or especially easy, for you?
3. What questions do you have about what you have studied so far?

After you submit your answers, please complete the Part 2 activities.

Part 2: Read, Reply, and Respond
Complete all of Part 2 by 11:59 p.m., Friday, November 17.

Read the answers of the other students as the answers are posted.

4. Reply to at least two of the other students.
5. Respond to the replies that you receive. If you do not have any replies, then e-mail your classmate(s) asking for a reply to your answer.

Homework #6 Teamwork Forum Directions

If you are having difficulties with any of the problems presented in Homework Assignment #6, post your statements or questions about your difficulties and request assistance from your classmates for clarity on what you need to do. When you respond to someone's statement or question, please make

sure that you do not solve the problem. Instead, make sure that you provide guidance, such as an explanation of key concepts or ideas that will help in solving the problem. Please continue to discuss the interpretation of the problems and your approaches to solutions, as needed.

Sociology Assignment Using Online Discussion

You are assigned to correspond with each other using e-mail each week regarding sections of *The Ninemile Wolves*. I hope that this assignment will do a couple of things. For one, I want you to use concepts from the other course materials and from class discussions in your discussions of *Ninemile Wolves*. In addition, I want you to use sociological concepts actively, including those that we do not note in class. In short, this is an opportunity for you to not only improve your understanding of the material in this course but in sociology as a whole.

Everyone is required to attend an initial tutorial seminar to become familiar with using e-mail. After that, you may submit your weekly entries to your fellow students and to me any time during the week. Be sure to read the e-mails that you receive from your fellow students. Your grade depends in large part upon your ability to communicate your ideas to other students in your group effectively and to engage in a dialogue with them. To get you started and to prompt discussion as needed, below I pose questions for each week's reading. Those questions are almost always about deeper issues; so do not be satisfied with a simple answer.

Moreover, you should not use the discussion questions as a crutch. Ideally, you and other members of your group will identify your own issues for discussion and will eventually ignore the discussion questions. Also, you are welcome to pull in material from class, other courses, or your life experience, but there should always be a connection to *The Ninemile Wolves*.

Remember that we will not be discussing *The Ninemile Wolves* in class at all. This assignment is to be completed entirely via e-mail. Your weekly comments, due on the date listed by 9 a.m., should be approximately two computer screens long. They will be graded on the quality of thought and argument that they evince in the context of the issues raised by your group. There will be very few "right or wrong" answers to the issues that are raised in the book in an ultimate sense, although, as an individual, you should argue for the superiority of your viewpoint or seek to find common ground among diverse opinions. What matters most is how effectively you discuss those issues. I will print out your comments each week, grade them, and return them to you.

Excerpted from Rik Scarce, *Using Electronic Main Discussion Groups to Enhance Students' Critical Thinking Skills*. Retrieved August 2005 from: Used with permission from Horizon: http://horizon.unc.edu

Completing the Alternative Modes of Instruction Form

Technology Use and Form 2

As part of the formal planning process, instructors must complete the Alternative Modes of Instruction Approval Form (Form 2) if they plan to offer a course that will use some form of technology for equivalent contact hours and/or to deliver course content.

Copies of Form 2

The two types of courses that require the submission of Form 2 are the combined course offering and the distance-learning course.

- **Combined Course Offering** – Typically offered in the traditional face-to-face format on the main campus or a branch campus, the combined course offers less than 75% of the total course content through the use of some alternative means, i.e., website, video. The delivery of the instruction makes use of technology or instructional materials beyond those available or distributed in the face-to-face classroom; that is, the use of technology does replace some contact hours for courses taught on the main or branch campus.
- **Distance-Learning Course** – Courses in this category deliver some or all of the instructional content through alternative methods – a course website – and the content is delivered in addition to, or in place of, traditional face-to-face instruction. If any one student receives instruction (contact hours) through an alternate delivery method, then the course by default may be termed as a distance-learning course.

Instructional Delivery Indicators

A required field of Form 2 is the Instructional Delivery Indicator, which documents the "time" characteristic of a course: synchronous, asynchronous, or mixed.

- **Synchronous** – Both the student and teacher are scheduled to "meet, tune in, or log on" at the same time. Questions are responded to immediately through various means (e-mail, voice, chat room, etc.).
- **Asynchronous** – Instruction is not limited to the teacher and student "meeting" at the same time. The instructor may make available instructional materials or content (for example, posting questions, assignments, activities, tests, to a website), and the student may access those materials whether or not the instructor is present at that time.
- **Mixed** – Instructional activities take place both synchronously and asynchronously. A "mixed" time element occurs when neither element totals 75% or more of the total instructional delivery.

Guideline for Contact Hour Replacement

Thoughtful planning concerning the forms of communication and activities to be included in a course help make your courses successful. For example, in an online 3-credit course, three hours per week of planned communication occurring between faculty and students serves as the class contact time. In a web-supported course, some or all of the contact time takes place online at the students' convenience. Peer review curriculum committees at the department/school/college level determine contact-hour equivalence.

"Contact" in discussion forum areas, whether synchronous or asynchronous, includes the following online interactions:

- **Explications** with extemporaneous questions of or by students and comments discussed by instructors and students in class.
- **Reflection questions** to students engaging their prepared and focused discussion of thought-provoking aspects of a topic.
- **Reports** of individual or group projects posted for class review and comment by the instructor or fellow students.
- **Critiques** prepared by the instructor or other students for critical analysis of individual and group presentations.

Non-Contact Hours

Notice that individual readings, video or audio lectures, auto-graded practice exercises or problem sets, individual homework, quizzes, group projects, and exams do not appear in the above list of "Contact" forms. Instead, these activities are considered out-of-class study or assessment parts of the course.

Also, office hours may not be substituted for contact hours. Unplanned contact between instructor and students that does not directly relate to the planned delivery of course content or achievement of course objectives should be regarded as the equivalent of office hours, and should not be assigned equivalents to standard classroom contact hours.

Instructional Technology Indicators

Another required field of Form 2 is the Instructional Technology Indicator, which documents how the course content is to be delivered to students. There are 11 choices, from face-to-face classroom instruction to the Internet. You select the type of delivery, and then choose whether the delivery is 75% or more synchronous, asynchronous, or a mixture of both.

Submission of Form 2

When submitting: If the course will be taught both on-campus and online, copies of the syllabi for both versions of the course should be attached, along with a memorandum that briefly compares the two syllabi and that explains compliance with a major requirement: Courses must provide instructional contact hours equivalent to those available to students who take the traditional format.

It is preferable to submit the form, syllabi, and memorandum ***at least one term prior to the term that the course will be offered.***

Submit the completed form and attachments to the appropriate person in your department for peer and curriculum committee review. The forms are then forwarded to Melissa Crawford, Office of the Dean of the Faculties (mail code 1480), for approval by the Chair of the University Curriculum Committee. Approved forms are sent to the Registrar's Office; others are returned to the faculty.

For online graduate programs: A similar approval process exists for graduate degree programs. The Graduate Policy Committee (GPC) reviews all requests in an effort to ensure: 1) that a complete degree program is being offered, 2) that the department has the resources to offer the online program while maintaining its on-campus programs, and 3) that the online program has the same requirements as, and is comparable in quality to, the on-campus program. Department Chairs interested in offering an online program equivalent to an existing graduate degree program must submit:

- A course rollout schedule
- A written statement addressed to the Chair of the Graduate Policy Committee, which includes:
  - Admissions requirements, noting the similarity of the proposed online program to the existing on-campus program
  - Description of the similarity between courses offered online and on-campus
  - Description of how the department will offer the online program while maintaining the on-campus program (funding, personnel, schedule)
  - Estimate of the number of expected enrollment for both online and on-campus programs

Check the GPC meeting schedule and submit your request one year in advance. This prior approval will allow your department to plan its recruitment activities and facilitate the appropriate course building within set deadlines determined by the Registrar's Office.

Instructional Tools of a Course Website

Blackboard, the Software Used to Create Course Websites

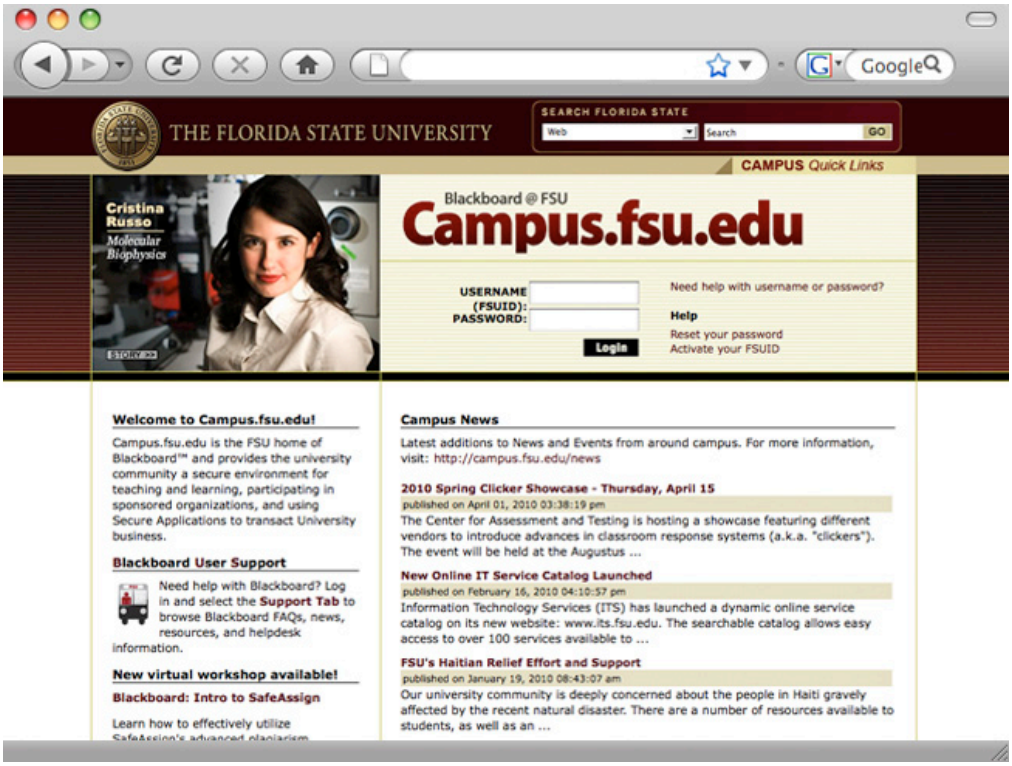
Blackboard is the main software used to set up web-supported and online courses at the University. FSU participated in its development and continues to use it because the software is relatively easy to learn and manage. Using Blackboard, instructors can:

Post class material, organized as:

- **Class Announcements** to post timely reminders or updates for the entire class.
- **Course Documents,** including course outlines, handouts, lectures, course readings, etc.
- **Staff Information** to deliver biographies of the instructor and others who teach or support the course.
- **Assignments,** including links to activities, projects, quizzes.
- **Resources** with links to other sites, from e-journals to the FSU homepage.

Enable asynchronous activities and access with built-in communication and students tools:

- **E-mail Sender** – Pre-addressed forms enable any course participant to send e-mail to any individual or class group.
- **Threaded Discussion Board** – You can assign discussions on designated topics, and sort postings by author or date.
- **Class Roster** – The e-mail address or homepage of any class member can be accessed on this page.
- **Student Homepages** – A template is automatically created for each registered student; class members can share information and a digital photo, which is helpful in creating a student community.
- **Virtual Classroom (Chat)**– Class members can be assigned to have real-time talks on this page.
- **Assignment Tool** – Assignments can be dropped off by students and retrieved and returned by instructors.
- **Check Grades** – Instructors can post a student's score for any assignment, quiz, or exam (along with total possible points and class average).
- **Group Pages** – Instructors can assign groups within a class to a set of the communication tools for use only by group members.
- **Class Statistics** – Instructors can access reports on a student's activity within the course website, from the time spent on the site to the website pages that were accessed.



Learning How to Use Course Websites

Whether you are a first-time or advanced user of a Blackboard course website, there are several methods available for learning how to use Blackboard to its fullest advantage.

- Course Template – If you feel confident that you can learn by doing, you can activate a web-based course template yourself. The template is a website that is not live, but that can be made live on the Internet once you have inserted all of your documents. You simply request a course website from Office of Distance Learning online.
- Workshops provide instruction and hands-on experience in everything you need to get started using Blackboard for teaching and learning.
    - ◇ A short course that walks instructors through the process of requesting, developing, and delivering a web-supported or online course is provided.
    - ◇ Advanced workshops on using audio and video on the course website are also available.
- Special training sessions for individuals or individual academic departments

To Sign Up for Workshops

Workshops are conducted throughout the academic year and are announced on campus.fsu.edu within the Support Tab.

For more information, contact the Office of Distance Learning at 644-4535.

Consultation Services Available

The Office of Distance Learning supports faculty members in their use of technology innovations in teaching and learning. Support for both web-supported and online courses includes consultation on preparing course websites, using instructional design, editing course material, and using digital media. Services include faculty consultations, instructional design, and editing of course materials.

Related Chapter

Chapter 15
Support and Resources for contacts and numbers.

Introducing Students to Online Learning

The gateway to most FSU course websites is the unified portal, campus.fsu.edu

After logging in, students will be on the Home page, which has links for tools, announcements, courses, and web mail. Note the tabs across the top of the page. Each tab is a resource designed to help you and your students. Also, keep in mind that the student Bb page does NOT have the following tabs: Content Collection, Learning Resources, and BB: Teach & Learn.

- **Home** - Contains the "My Courses" module, which enables students to see which classes they are enrolled in, that have Blackboard sites.
- **My FSU** - A customizable page that allows users to choose which items they would like to display. For examples, one of the most frequent chosen modules is the user's FSU course schedule (including course with Blackboard sites).
- **Courses** - Lists courses that the user is (or has been) associated with and the instructors for the course site.
- **Organizations** - Lists all organizations and Discussion Boards in which you or your students are participating. The Organization Catalog lists by academic unit all organizations that have a Blackboard website.
- **Content Collection** - Is a tool for managing files. Files can be set to provide any user or group (e.g., class mem-

bers) a level of permission, from the right to read the file to the right to remove the file. Files also can be linked to any Blackboard course and organization website.

- **Webmail** - Students can send e-mail to individuals who participate in a particular course or organization from the Send E-mail page. E-mails can be sent to individual users or to groups of users within the course, such as all Users. Students cannot send e-mail to users not in their course list.
- **Secure Apps** - Provides access to many of the secure websites that students use to submit and view their personal information and to transact University business.
- **Support** – The support page provides numerous avenues for assistance, including links to Bb faqs, the student and instructor Bb manuals, and information on training.

Website Resources on Online Teaching

Accessibility

- *Web Content Accessibility Guidelines* (WCAG) (1.1), ed. S. L. Henry. (accessed November 3, 2005) http://www.w3.org/WAI/intro/wcag.php
- *Research-Based Web Design & Usability Guidelines*. National Cancer Institute, Department of Health and Human Services. http://usability.gov/guidelines (accessed November 3, 2005).

Intellectual Property and Copyright

- The TEACH Act of 2002: *How the law affects online instruction* (2003). Office of Distance Learning, Florida State University: Tallahassee, FL. http://ctl.fsu.edu/explore/bestPractices/docs/TEACHAct.pdf
- *How to Cite Electronic Sources*. Library of Congress. http://www.loc.gov/teachers/usingprimarysources/citing.html
- *SafeAssign:* Safe-Assign replaces Turnitin as FSU's anti plagiarism tool. http://ctl.fsu.edu/explore/bestPractices/safeAssign.cfm

Online Pedagogy

- A. W. Chickering and Z. F. Gamson. *Seven Principles for Good Practice in Undergraduate Education*. http://www.hcc.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7princip.htm (accessed November 3, 2005).

Surveys and Research

- *The International Review of Research in Open and Distance Learning:* Athabasca University, Canada. http://www.irrodl.org (accessed November 3, 2005).

Online Teaching Guidelines and Resources

- S. Horton, 2000. Web Teaching Guide Bibliography. Yale University Press. http://www.webteachingguide.com/biblio.html
- Z. L. Berge (1995). *"The Role of the Online Instructor/ Facilitator," in Facilitating Computer Conferencing: Recommendations from the Field.* Educational Technology. 35(1) 22-30. http://www.cordonline.net/mntutorial2/module_2/Reading%202-1%20instructor%20role.pdf

Preventing and Dealing with Plagiarism

- FSU's Information for Plagiarism. Office of Distance Learning, Florida State University: Tallahassee, FL. http://ctl.fsu.edu/explore/bestPractices/plagiarism.cfm
- R. Harris (2004). *Anti-Plagiarism Strategies for Research Papers*. VirtualSalt. http://www.virtualsalt.com/antiplag.htm

University Computing and Network Resources

- Use Of University Information Technology Resources. Florida State University: Tallahassee, FL. http://policies.vpfa.fsu.edu/bmanual/itpolicy.html
- *Student Conduct Code*. Florida State University: Tallahassee, FL. http://srr.fsu.edu/conduct_code.html

Chapter 11 - Teaching Contexts

Elsewhere in this handbook we have covered effective lecturing. Here, we present other teaching contexts. While the dynamics of the student-instructor relationship and the criteria used for improving it remain essentially the same as in traditional situations, additional points should be considered.

1. **Teaching Strategies for Large Classes**
2. **Teaching the Discussion Class**
3. **Teaching in the Laboratory**

Teaching Strategies for Large Classes

Creating an Interactive Environment

It is essential to be enthusiastic and to have students answer specific questions during the lecture to keep them engaged.

- **Personalize instruction** - You may know some of your students from enrollment in a previous class or a student organization. Use this already established relationship through casual remarks before and after class, and expand the nonverbal inclusion of others in the exchange.

  There are many ways in which a teacher can attempt to make a large class more "personal." In general, these methods take time but are appreciated. Some strategies include the following:

  - Learn students' names. Use the Photo Roster to connect names with faces. Ask students to say their names before they respond to a question, and spend a few minutes after class memorizing them. Learning a small percentage of names in a large class gives students the impression that you are trying to connect with them.
  - Ask them to tell something about themselves on the back of an information card, which you can distribute on the first day. Also, your course website is an excellent place to collect information from a "Get to Know You" survey, which will also foster a learning community.
  - Emphasize willingness to talk outside of class by appointment, not just during formal office hours. Or, if you have a course website, use the online communication tools supplied. E-mail, group e-mail, and threaded discussion are all features that support communication.
- **Create a safe environment** - To encourage student involvement, talk about questions students have raised in previous terms.
  - "Do you know the first thing students typically ask when I present this problem?"
  - Or, the phrasing can be more specific: "I had a student once who asked me such and such, and that is really an excellent question."

Talking about student questions from previous semesters is a simple technique, but it does say to students that the questions they raise are relevant and demonstrates your eagerness to respond to their queries.

Consider developing a Frequently Asked Questions (FAQs) section on your course website.

If a student asks a particularly insightful question after class or in an office session, the student can be recognized in class with a comment like, "Jim asked me an excellent question yesterday. In fact, it is so good I'd like to take a few minutes in class to discuss it."

Students are sometimes helped when a professor acknowledges that a concept is confusing. Explain your first encounter with the idea. What strategies and techniques helped you to clarify the concept?

- **Use humor** - Humor can do much to communicate messages of "humanness." Use it in ways that are natural and comfortable expressions of your individuality. Most important, do not be afraid to laugh at yourself. If you make a slip in pronunciation or drop three pieces of chalk in a row, and your behavior makes students smile or even laugh, join them. Never use sarcasm; it can too easily backfire if misunderstood.

Dealing with "Lecturing Anxiety"

There are several points to keep in mind when you are trying to reduce the anxiety of lecturing before a large number of students.

- Most students will not recognize how tense lecturers are, especially if lecturers appear confident. Confidence comes from careful and thorough preparation. Knowing the material allows you to focus on students' reactions and to perceive when they are engaged and when they are confused.
- Many lecturers are their own worst critics. Focus on the material to be conveyed and the students' reactions.
- Some nervousness is helpful because it gives you an edge and a sense of spontaneity, anticipation, excitement, and alertness.
- Nervousness will decrease with experience.
- For those with chronic anxiety problems, there are numerous treatment programs available. The Office of Distance Learning at 644-4535 or the Employee Assistance Program at 644-2288 can advise you as to who can give you assistance.

Lecturing in Large Classes

Be prepared! Plan the lecture thoroughly, allowing adequate time for discussion of the necessary topics. Few situations are worse than running over time and having 200 people walk out on you.

- The lecture should not be used to convey information that can be more efficiently acquired in other ways such as textbooks, other books, online information, additional printed materials, web sites, or audiovisual aids. Nor should it be a repetition of material in the textbook or assigned reading, which is an insult to students. They will

quickly realize the uselessness of attendance.

- A productive exercise for instructors of large classes who wish to monitor students' perception of lecture content is to view a sample of student notebooks and then compare them with each other and with your notes.
- Efficacy can be improved by having students spend a few minutes discussing among themselves what has transpired after every 10 minutes or so of lecture. Another method is a structured lecture in which there are 20 minutes of lecture, followed by 10 minutes in which students work in teams on a particular problem, followed by another 20 minutes of lecture.

Suggestions for Successful Lectures

- Start the lecture on the right foot by allowing students a few minutes of adjustment time to get settled. If you put your key sentence first, they will probably miss it.
- Start the lecture with a non-critical item so that they know you have begun. Provide a brief review of major points before lecturing so that students can still interact with the lecture even if transitions are weak. For clarity and retention, outline what you will cover, cover it, then review or summarize what you've just covered.

  Example - One professor uses overhead projectors to present a relevant news item or article for students to review as they find their seats. She then begins the lecture by referring to these articles, which emphasize the relevancy of the topic of the day (using the opening minutes of the class effectively).
- Provide an outline of the main points of the lecture on the overhead projector or whiteboard. This outline can be presented to students in the calendar of a course website.
- Include no more than three or four main points in a 50-minute period.
- Begin by posing a question or example.
- Clearly delineate major points verbally ("The next point is….") and stand by the lectern in a relaxed posture.
- Write out unfamiliar terms, names, or references on the board or transparency. Intersperse concrete examples of general concepts for clarification. Also include these on the course website.
- Involve students as much as possible. Use topics as online forum discussions over the coming week or the prior week.
- Be enthusiastic.
- Adapt lecture material to your students. Share information that concerns them and provide examples that relate to their issues and concerns.
- Cover a few points in-depth rather than many superficially.
- Interest comes from variety. Try to assemble facts as well as examples, opinions as well as illustrations, statistics as well as anecdotes. A variety of material captures attention.
- Vary format and move around. Use visual aids.
- Use humor that emanates naturally from the material and setting.

Interaction and Discussion

Some instructors use small groups to manage interaction in large lecture classes. Some points to consider in helping small groups work well:

- Use clear, simple, and task-oriented instructions, such as:
  - ◊ "Decide together which of the brothers is the major character in the novel and why."
  - ◊ "Identify three positive and three negative qualities of King David's character."
  - ◊ "If you were Lincoln, what would you do about Fort Sumter?"
- Give groups a sense of how much time they have to do their work: "Take ten minutes to define your group's position."
- Ask groups to select a recorder and provide clear ways of reporting back.

Suggestions

Student reporters tell the instructor orally and he writes responses on a blackboard; reporters write responses on a transparency; reporters write responses on cards that are collated and read by the instructor. Another group member can be responsible for posting outcomes to the course website for future reference and review.

Make Instructions Specific and Concrete

Group activities work well in large classes with advance planning. Attention to detailed instructions is essential. Group tasks must be specific and concrete.

- "Groups should generate four possible explanations for the results we've just observed."
- "In five minutes, I want each group to have a list of three items."
- "Here's the statement... I want to know if the group agrees or disagrees and why."

When tasks are not specific or clear, group members must try to decide what they are supposed to do. When this occurs, time is wasted in confusion, complaining and socializing instead of working on the assigned task.

Monitor Time and Group Size

In large classes, group projects work best if they are brief and to the point, something quick and easy that adds presentational variety. The time allotted must be proportional to the task, but five minutes can be enough to work on a well-defined problem. Keeping the time limited also forces groups to focus on tasks quickly. Shorter times work well if group size is kept small - no more than three to five people, or, on occasion, people can work in pairs. Group size is also proportional to participation. It is tougher to be a silent member when there are only two other persons in the group.

Do Something with Group Products/Results

No one likes to contribute to an activity only to discover that the results are disregarded. If students have worked on solving a problem, ask the groups for the answer. If different answers are offered, that is better. Have group members defend and explain answers. Alternative answers and solutions can be recorded and posted on the course website or on the board during class.

Writing Assignments for Large Classes

Consider the following ways to structure writing assignments for large classes:

- Assign term papers with due dates for the different segments that combine to result in a complete paper - an abstract or summary, an outline, an introduction, main arguments with bibliographic references, a conclusion and then, finally, the entire paper, all at appropriate intervals.
- Assign shorter forms of written work from all students to fulfill Gordon Rule requirements (e.g., reaction papers, reading journals, position papers, laboratory or observational reports).
- Assign group projects that will produce a smaller number of written products to grade. These can be assigned online in threaded discussion forums and monitored throughout students' progress. Products can be posted to the website for all to view. The instructor can monitor fewer actual projects while including all students in the interaction thus produced.
- It is essential that the length of students' answers be limited if essay exams are to be used in large sections. Good ways to limit students' answers include focusing the questions somewhat more than you would in a similar but smaller class, encouraging students to be concise, and giving students a limited amount of space in which to answer.
- It is especially easy to be passive in a big class. Instructors must make special efforts to engage students. Conclude a lecture by proposing, "Take two minutes and generate a test question on today's content that you think you might see on an exam." You might just get a good question, and if you do decide to use it, students will take that segment of class seriously. These can be requested as hard copy at the end of class or be required to be posted by midnight that day on the course website.

- You can encourage quiet students to participate in discussions by writing. For example, you might say, "Please quickly write down five possible…" and then call upon a generally hesitant student for a response. The written aid will help that student make a comment. Online discussions often draw out the more reticent students since they can be thoughtful about a response and not the focus of attention of an entire class.

Suggestion

At the start of each class, students write for five minutes in response to a question about the assigned reading for that day. Grammar, mechanics, and organization do not count. Papers receive an "S" or "U," the only criterion being that they must demonstrate beyond a reasonable doubt that they have read and thought about the assigned reading. This method eliminates the need to take attendance or grade quizzes and encourages regular attendance and timely reading of assignments. If you have a web-supported course, this technique, which requires interaction, can be used in online threaded discussions.

Related Chapter

Chapter 13

For further information on writing assignments, see **"Writing Assignments and Their Evaluation" in Grading**.

Large Class Management

- **Latecomers** can be distracting to both the instructor's train of thought and to student attentiveness. With large classes, it seems that someone is always arriving late or leaving early. You cannot eliminate this entirely, but you can minimize it. A punctual instructor who arrives a few minutes early to set up and who begins promptly sets a good example. Indicate from the outset that tardiness is unacceptable. Use a glance, a dramatic pause, or verbalize your concern early in the semester. Do not hope the problem will go away and then, eventually, respond angrily out of annoyance. The latter response will be ineffective in curing behavior that is better prevented.
- **Backpack zippers** - The last few minutes of class is a common time for student attention to wander, and the zipping of backpacks interrupts the flow of class. A well-timed remark might be effective. Say, with a smile, "You have four more minutes for which you have paid, and I'll end promptly, so just wait to grab your backpacks."
- **Reading newspapers or non-class related material** - If you find reading the newspaper or any other behavior distracting, it is best to say or do something at the first instance of the behavior.
- **Your professional image** - Look at yourself in a mirror. Does your appearance reflect a relaxed or a formal attitude? It has been observed that if instructors project a more formal, professional appearance, students react in a more formal way in the classroom (i.e., less talking, less coming and going, etc.). On the other hand, if the

instructor is more relaxed or informal in appearance, it is likely that the students will feel less inhibited about talking, leaving early, etc. While appearance makes the first impression, it can be counteracted or enhanced by preparation, confidence, interaction, enthusiasm, inclusiveness, and fairness.

- Student feedback - Instructors need diagnostic, descriptive details indicating student perceptions of the learning experience.
    - ◊ Do the lectures facilitate a need for taking notes?
    - ◊ Is the pace manageable?
    - ◊ Do the readings make relevant contributions to understanding course content?
    - ◊ Does your style of presentation hold attention most of the time?
    - ◊ Are the examples relevant?
    - ◊ Are there enough examples?
    - ◊ Is the value of the course content clear?

  Data like these can be obtained through an instrument administered by the instructor - an instrument that asks what you are most interested in knowing. (See Chapter 14 - Improving Your Teaching with Feedback.)

  Open-ended questions can be focused. To create a list of specific suggestions to be considered for implementation, ask a question such as, "When do you find yourself most or least intellectually stimulated in this course?" These brief surveys can be conducted online for more immediate feedback to instructors.

  Minute papers are effective in getting feedback - "What was the most useful or meaningful thing you learned during this session?"

Other Techniques for Management

- The large-class lecture setting provides an opportunity to practice a familiar but often ignored technique: explication. Instructors can teach students how to read, even in large-lecture classes, by going directly to a text and reading and analyzing passages with them. The students, following along in their books, observe the professor working through a passage. Students are then ready to do it themselves. Invite students, either ahead of time or at the start of class, to find one or two quotations from the textbook that they found significant. This is an activity that can also be supported online on the course website.
- Include a list of study questions along with your course objectives. Each day begin the class by asking one of the questions. You may want to give the students five minutes or so to write down their answers. Then encourage students to share their answers with the rest of the class. This activity can also be a weekly activity online. It will prepare students for a lecture or can supplement other online activities.

- Do not overlook the flexibility provided in the online course management system (Blackboard) supported by FSU. There are many ways to communicate with and among students online. They can collaborate in small groups and you can monitor the activity, interjecting encouragement or correcting the course as necessary.

Teaching the Discussion Class

A discussion class is a small sub-group of a large lecture class, which meets regularly as a supplement to the weekly lectures. It can also be a small group formed online to work collaboratively either as part of an online course or as an activity that supports a course taught in the classroom. These are both subsets of the larger class, irrespective of class size.

While the once-a-week discussion or recitation class is common to math, science, and the social sciences, all disciplines will have occasion to use collaborative group discussions in online courses or as activities that supplement classroom activities. Generally, the lead faculty member for the course will determine the purpose of the discussion class or online group. Discussion group leaders such as mentors, TAs, or faculty facilitators have the responsibility of guiding and monitoring the discussion group appropriately in keeping with the instructor's purpose.

Identifying the Purpose and Goals of the Discussion Class

The purpose of the group discussion must be determined during the course design. Facilitators will rely upon the lead instructor to guide them in using the group discussion period or online function in accord with the goals and objectives of the course. These should be clearly indicated in the course syllabus. Facilitators should communicate with the instructor to ensure that they clearly understand the purpose of the group activity. The students will use this time appropriately only if the monitoring person clearly conveys and supports the goals.

Consider:

- Is the discussion period or activity to be used for reviewing and explaining the material already covered by the lecture?
- Are students supposed to work together on homework problems?
- Are you expected to introduce new material, or are you expected to broaden the students' ideas of specific aspects of the lecture materials?

Related Chapters

Chapter 2
Determining Learning Objectives and
Chapter 3
Creating a Syllabus.

Resource

- Our **Leading Discussions Tip Sheet**
  http://learningforlife.fsu.edu/ctl/explore/onlineresources/docs/leadingDiscussions.pdf
  This document gives quick tips, from motivating students, to participation, to concluding the discussion. Download and print the document for easy use.

Deciding What to Cover During the Discussion

If there is to be an effective discussion, it is essential for a facilitator to have a firm grasp of the course readings, labs, and lectures. It is crucial to have the same exposure to course materials and presentations as students. A lot of time and effort can be lost if assumptions are made about particular lectures or presentations. Appropriate guidance of discussion activities can only occur in the context of the course activities and materials to which the discussion relates.

- Although the course syllabus provides a general idea of what is being covered in class, **only attendance at the lectures will provide the necessary framework for group work.** Attending each lecture ensures awareness of potentially confusing events in the lecture (e.g., a misinterpreted word or phrase, a poorly presented whiteboard demonstration). Furthermore, if the intent of the discussion is to delve more deeply into lecture material, a first-hand experience of the presentation will enable a facilitator to focus and guide discussion appropriately. In the online course, facilitators should work through assignments ahead of schedule and communicate with the lead instructor to ensure compliance with goals for the discussion board.
- **Attending lectures serves as a beneficial review of the basic materials** that are required to teach your course or any advanced course in your subject. Often, advanced graduate students or experts in the field are surprised to find that the more complex problems they consider to be interesting are not really of interest to an undergraduate in an introductory course. Participation at the undergraduate student's level will help the facilitator better understand the student's current experience with the course material.
- **Attending lectures provides an opportunity to observe a more experienced instructor,** one you may (or may not) choose to use as a model in the future. After attending the lecture or completing online assignments, you should critique the experience. Were all points clearly and comprehensively explained? If so, the next discussion class may include a quick review of some of the main issues, followed by an application or extension of the idea. If it was not a particularly good lecture or activity - muddy explanations, confusing organization, too many irrelevant digressions - the next discussion should clarify, focus, and develop the assigned material. It is important, however, to be prepared in the discussion to answer all questions, not just those that you think will present problems.

  As one Physics department instructor pointed out, "Be prepared for the worst. If you go to class having prepared 95% of the problems, you can be sure that a student will have a question about the problem you did not do. And that problem will be a tricky one."

Getting Students Involved

How to get students involved in discussion classes also must be considered. Be sure that students know at the beginning of the semester what the purpose of the discussion class is, that it is not just a rerun of the lecture. Usually, it is an opportunity to address problems students may not thoroughly understand, to broaden their knowledge of what is already understood, and to give them some practice in applying the knowledge and skills they have learned. Demonstrate that you are sensitive to their concerns. Let them know that their input will help shape discussion topics and activities.

Related Chapter

Chapter 8
For more strategies on getting students actively involved in discussions, **Using Active Learning in the Classroom**.

Suggestions

A good way to get everyone in the class involved is to ask students to come to class with a question they would like to have answered. In the case of face-to-face discussion classes with a web-supported component, their queries can be anticipated by engaging in a brief online threaded discussion, or if there is no web-supported component to the course, an announcement can be made before the discussion period. The face-to-face experience can be shaped and anticipated by prior communication. Questions or concerns collected online or brought to class can be written on the whiteboard at the beginning of the discussion activity. This will only take a few minutes, and it will give you an idea of the type of problems students are having. Students can see what problems others are having, and it will give them a sense of participating in the shaping the class. As you write the questions, group them according to subject matter. You will find that, quite frequently, several students will have the same problem.

- An alternative way of involving students in discussion is by outlining on the board the topics you think need to be covered and having the students decide which they find most urgent. This can also be communicated online before a face-to-face meeting. This method has the advantage of giving you more control over the content of the class while still allowing the students some voice.

Adapted with permission from *The Teaching Assistant Handbook*. (1989). Teaching Assistant Project, The Graduate School, Rutgers University: New Brunswick, NJ.

Teaching in the Laboratory

Laboratory classes are taught in many different disciplines across the University. These suggestions are meant to be generally applicable.

Preparing for the Lab

There is much to coordinate in a laboratory class. Not only must you know the material, you must also supervise and guide students through the lab. Preparation for labs will necessarily be a large part of your teaching effort. Efficient

preparation is desirable for any lab facilitator, so take advantage of all available resources. TAs can ask for advice from experienced graduate assistants or lab assistants who are familiar with the lab. Their advice can save time, effort, and even occasional embarrassment.

Important: Establish communication with the lab manager or managers. Many issues regarding equipment, supplies, and condition of the lab before and after class can be discussed and protocols agreed upon in advance.

General Preparation for All Lab Meetings

- **Read the assigned lab activity in the lab manual** (if you are not the instructor who created the activity). Know what the students are supposed to learn and why. Look up any terms or concepts that are unfamiliar to you or your students. Familiarize yourself with the subject relevant to the lab activity by reading the course textbook or reference books and bringing them to the lab for student use. Be certain that you feel comfortable and knowledgeable about the material before lab. Also, keep abreast of the corresponding lecture or online activities as written in the syllabus. If it is possible for students to take the lab without being concurrently enrolled in the lecture, find out which students are doing so. Most likely they will require more orientation or should be paired with students currently enrolled in the lecture section.
    - ◊ Some labs may benefit from supplemental materials, especially those that consist solely of demonstrations (e.g., botany and geology sections). If the lab manual does not contain such materials, students may find it helpful if you prepare a handout to guide their observation. Alternatively, you can communicate with students online to prepare them and to field questions before the lab experience. Online communication can be useful in identifying challenges, which will prepare you for the face-to-face lab experience.
    - ◊ Obtain a syllabus and textbook for the lecture (or the relevant lecture course) so you know where your students are in the lecture sequence. If a lab takes place before a relevant lecture, you must take this into account, as students will not yet have had the theory. This is an excellent opportunity to prepare students by providing online orientation to the theory.
- **Know your equipment.** Check that all the relevant equipment is available and in the appropriate location. (Consult the equipment lists as needed.) Know how to use the equipment safely and efficiently as well as where to find more if you need it. Be familiar with how to turn equipment on and off, what constitutes breakage or failure, where to find a replacement, or how to restructure the lab without it. Make certain that students know how to take care of the lab and their assigned equipment. Labs will function more smoothly and safely when students share responsibility for set-up and clean up.
- **One week before class, actually perform the experiment and analysis, if possible.** The benefits of preparing the experiment in advance cannot be overstated. Running through the protocol allows you to anticipate and plan for problems. As you do the experi-

ment, pay attention to the clarity and completeness of the lab manual. You may need to warn students about possible pitfalls or supplement the manual with instructions or handouts.

- **Think about equipment and supplies.** What and how much will you need for your students for the particular lab exercise? Will you need to schedule class activities to avoid long waiting lines in that particular lab for a crucial piece of equipment?
- **Run through the data analysis with your trial data.** Keep a record to refer to during lab, and include units and necessary equations since many students have difficulty with these. Finally, know whether you can obtain the expected result. Plan for alternative strategies for the times when results go awry.
- **Make a list of anticipated student questions and your responses.** Labs are experiential and often the best response to a question is to pose another question. What questions will help students do their own problem solving? In labs, these usually refer to given, or known, information, or reviewing observations. If you can, shadow an experienced lab instructor. You should hear typical questions and answers relevant to that day's lab exercise.

Many large courses have weekly preparatory sessions with lab facilitators and the course supervisor (occasionally the lecturer) attending. "Prep" sessions have many advantages over individual preparation. When doing the lab as a group, you can preview the experiment and lab manual; the experience will have more of an actual classroom atmosphere. As a group you can decide what to emphasize across sections and discuss how to solve difficult situations from a variety of perspectives. This is also a wonderful opportunity to learn from others who are experienced with the lab.

If this is not a usual practice, efficient preparation can be managed by online communication among facilitators, lab assistants, and the instructor. At a minimum, tips from more experienced persons can be shared with others tasked with lab oversight.

- **Think about time management.** When preparing the lab, keep in mind the length of time particular tasks will take. What should students be doing after a half hour, an hour, three hours? Try to anticipate any problems your students will have in budgeting their time on various sections of the experiment. Guide and pace your students so that all of them finish on time (or approximately on time). Sometimes you can subdivide lengthy labs, with different groups carrying out different sections. In some cases, you may need to do parts of the experiments or give a group demonstration.
- **Think about safety.** Review the safety concerns presented by the lab and plan what you need to do to reinforce these concerns for students. Provide guidelines before the lab meeting by e-mail or, if a web-supported course, with an online course announcement. Be aware of any health-related problems that students might have that require special consideration (allergies to chemicals, students who need rest breaks because of health, etc.).

- **Plan for student preparation and write-up.** There is nothing more frustrating than repeatedly answering the same questions because students did not read the lab manual. In addition, unprepared students in a lab take longer and make more mistakes. Some options to help students prepare include the following:
  - **Assign advance readings** with guiding questions to focus their study. If your course is web-supported, this can be done through online communications in a threaded discussion format to include all students. If it is not web-supported, you can distribute a handout in the class before the lab.
  - **Give short quizzes** of two to three questions at the beginning of the lab. (Students can grade these.)
  - **Briefly discuss the key lab procedures** and outline them on the board or in a handout.
  - **Pose questions** to students randomly during the lab introduction.
  - **Require pre-lab write-ups** of an introduction or purpose of the lab for students to include in their lab notebooks.
- **Plan your introduction and closure.** Review and think about the goals of the course. Relate and integrate them into the lab activities.
  - What concepts must be introduced or reviewed to make the lab material relevant? What is the lesson(s) to be learned from the lab and how will the students understand and retain it?
  - Where appropriate, a brief, well-prepared demonstration can be informative.

  Introduction and closure are extremely important and your presentations should be short and to the point. Remember, students are there to get their hands dirty, **not to listen to another lecture**.

Take a few minutes at the end of lab to review the goals, and discuss results and difficulties. A group analysis and comparison of results helps students experience the realities of the scientific process.

Checklist for Pre-Lab Preparation

» Work through each experiment yourself, including data analysis, so you will have a thorough understanding of it. Your models can become instructional aids.

» Read and study the textbook and theory on which each experiment is based so you can answer students' questions.

» Figure out where students may have problems with the experiments. You might also ask persons who have previously taught the lab.

» Ask the instructor or facilitators who have previously taught the lab which experiments have constraints or confounding conditions, e.g., weather dependence, the lecture sequence of the topics, or are tied to other courses.

The First Lab Meeting

Careful thought and planning are essential for the first lab class. This is the time to set the tone for the rest of the term.

- Encourage the students to get acquainted with you and one another. Introductions could include major, hometown, special interests related to the lab, information about current enrollment in the related lecture course, etc. Begin to learn students' names; keeping a list with related information can be an aid.

  Suggestion from a facilitator in Physics:

  Facilitators also need an introduction to the students. I generally ask people why they are taking the course - pre-med, pre-dentistry, other health professions, engineering, physics major, etc. (Three out of 300 took my course for "fun.") Another facilitator hands out index cards asking students for name, method of contact (e-mail, phone number, beeper, etc.), and one "interesting personal fact" to help him remember names.

- **If course design requires that students work in groups, it is important to form the groups** and encourage members to become acquainted with each other. You may have a simple experiment for them to do on the first day that would require them to work together so that they begin to get to know each other as collaborators and resources in a learning context. These newly-formed acquaintances can be reinforced by required online communications between lab meetings.

- **Help students to understand the relationship of the laboratory section to the overall course,** and point out that most of the experiments are intended to illustrate basic ideas that underlie fundamental concepts presented in the course. Briefly review the types of experiments the students will be performing. Emphasize the importance of arriving at the lab on time due to the need for orientation and guidance before beginning the experiments. Show them the laboratory facilities and give them a few minutes to become familiar with their surroundings.

- **Prepare a handout (**with the information in the first 3 bullets above) or include this information in the syllabus or on the course website. Other issues that should be written on a handout and communicated on that first day include:

  - ◇ The importance of laboratory safety measures.
  - ◇ A complete list of safety rules.
  - ◇ Notification that students with physical or other impairments who require special consideration must make a request for this consideration. (The student must also inform the Student Disability Resource Center, 644 9566. You cannot inform SDRC on the student's behalf.)
  - ◇ Detailed explanation of the general ground rules for the proper handling and storage of supplies and equipment, including clean-up procedures following the lab meeting.

- ◊ List of the manuals and supplies the students will be expected to purchase and where these may be obtained.
- ◊ Explanation of preparation required for each session.
- ◊ Review of the overall grading policy that is in place.
- ◊ Discussion of expectations regarding independent and collaborative work.
- ◊ Explanation of the format for notebooks and reports the students will be expected to keep (Provide sample notebooks and reports.)
- ◊ Any ground rules such as:
  - » Attendance policies,
  - » Late report submission policies,
  - » Lab make-up policy, or
  - » Policies on cheating and plagiarism.
  - » Discussion of the assignment for the next laboratory session.

- It is important to distribute a handout that specifies these policies and guidelines for several reasons. It gives you and the students a written record. Students joining the class after the first day do not miss this important information, and, if disputes arise later, you will have documentation. Bring copies to subsequent classes for those who do not attend on the first day. Post these guidelines on the course website.

Suggestion

Seek experienced lab facilitators in your department for more ideas on what specifically needs to be emphasized or explained explicitly on the first day.

Related Chapter

Chapter 3
Creating a Syllabus - For examples of issues and policies that should be covered in your syllabus.

Running the Lab

With your preparations finished, everything is in place and ready to go for the students. Here are some suggestions for structuring the lab period.

- **Go into the lab early and write a brief outline of what is to be covered on the board.** This helps keep students focused, helps pace the work, and is especially important for classes that might have multiple, ongoing experiments. Include pertinent announcements (review and exam dates, assignments due) to avoid spending too much time on these during class. This and other relevant information can also be posted on the course website in Announcements or as part of a discussion forum. Or, you may wish to put this information in a handout for the students.

- **Begin the lab on time.** Waiting for everyone to show up only encourages latecomers. Consistent promptness can inspire everyone to arrive on schedule.
- **Briefly summarize the results of the previous week's lab.** Summarizing is important for continuity throughout the semester. This should also be done online before the current lab meeting.
- **Give a brief introduction to this week's lab.** Here you can give any announcements, answer questions about lecture, and introduce the lab. Be concise. Again, advance organization by way of online announcements and summaries can be valuable in preparing students.
- **Demonstrate any tricky techniques or apparatus and point out the location of special materials.** Gather the class close together for this demonstration, making certain everyone can see and hear. Encourage questions, but ask your own to monitor understanding, which will help you avoid explaining the same thing ten times in the first half hour. Have students form lab groups now if this has not already been accomplished online or as part of the course design.
- **Interact with students.** Take an active role with your students. "Learn and use their names" bears repeating because of its importance. Try to interact with everyone during the period. Move through the entire room. Check notebooks and make suggestions, eavesdrop on discussions or read over students' shoulders. This way you are readily available when questions come up and you can steer students in the right direction if they have gone off course. Such vigilance can help you detect quickly particular challenges that can then be addressed to the entire class.

  Suggestion from an international instructor:

  I am not very good with names and faces, but every semester I have made an effort to know all the students' names by the third week of school. That is tough for international instructors but it helps a great deal.

- **Never pretend to know the answer to a question.** If you do not know the answer, look it up in a reference, or ask another facilitator or the course instructor. Students will respect your honesty and will trust the correct answers that you do give. Describe to students your methodology for finding an answer. This can help them learn how to search for answers independently. Such tips encourage and support active learning on the part of students, a worthy goal for any instructional activity. Remember to find the answer and provide it to the class online and at the next lab meeting.

  Suggestion from a Physics instructor:

  Students will often not ask questions. Constant circulating among the students is needed. Lots of questions come forward on an individual basis. I would ask how it was going, what certain results showed (concepts proven), or if there was another way to do something. Nine times out of ten doing this elicited good, thoughtful questions.

- **Let students take responsibility for learning.** De-emphasize the "teacher as expert" model. One purpose of a laboratory section is to teach students how to learn through experimentation; in other words, how to do science themselves. It can be hard to know where to draw the line between effective hands-off teaching and letting the class drift aimlessly. Have a procedure for encouraging students to be their own resources and follow it. For example, you might require students to pose their question to three other students before they ask you. Online activities can help prepare students to be more active learners. A hypothetical but similar problem to that which will be addressed in lab can be opened for discussion among the lab participants through a threaded discussion before the class meeting.

  Suggestion from a Geology instructor:

  Encourage collaboration. The students will learn as much from hashing things out with one another as they will from you – if not more.

- **Pace student progress.** Time allotted for labs is frequently too short and students will not finish unless they are kept on track. Indicate which parts of the lab absolutely must be completed during the period. Periodically, you might announce what they should be working on. Try to keep the class at roughly the same point, but recognize that students work at different rates. Try to help groups that are lagging behind schedule. For those who finish early, encourage review of the material or discussion of additional questions. Also, expect some socializing. Early completers might be encouraged to work with slower groups.

- **Provide a sense of closure and clean up.** A good conclusion reinforces learning. It is a time for reflection and processing observations. Post results on the board and let the students draw their own conclusions, as part of a class discussion. If time is short, you can begin this when most people have finished. Follow-up and completion can be accomplished as an online activity using threaded discussion for reflection and exchange. Allow sufficient time for tidying up. Check that all equipment and utilities such as gas, air, and water outlets have been turned off. Again, effective communication with the lab manager will provide clear guidelines and expectations.

Adapted with permission from *Guidebook for Teaching Labs for University of Michigan Teaching Assistants: The Center for Research on Learning and Teaching and The LS&A TA Training and Development Program.*

Resource

The Office of Distance Learning is a faculty-support organization that provides assistance with technical issues and course design. For more information on resources to aid in designing, developing, and conducting all or part of a course online or with the enhancement of various digital media, go to the **ODL website** or call 644-4535.

IV. Student Assessment
Chapter 12 - Testing and Assessment Issues

Assessment of student achievement is an important part of the teaching and learning process. Given at the beginning of a course, assessments help you know where to begin and/or identify areas of remediation that must be addressed. Frequent assessments during the course help you and your students see the progress of learning and help identify problematic areas where students need more help or time. Given at the completion of instruction, assessments tell you how much has been learned by the end of a unit, by mid-semester, or by the end of the term. They provide the basis for making judgments on the grades to assign each student. This chapter provides an overview of assessments, with a focus on tests or examinations typically given in paper/pencil format or on the computer.

- **Types of Learning Assessments**
- **Paper/Pencil or Computer Examinations (Tests)**
- **Step-by-Step Guidelines for Creating Tests**
- **Constructing Performance Tests**
- **General Tips about Testing**
- **Helping Students Learn from Tests**
- **Using Item Analysis to Test Your Test**
- **Cheating on Tests**
- **Alternative Methods of Assessment**
- **Resources on Testing**

Types of Learning Assessments

- **Examinations**
  - Open-ended such as essay and short-answer.
  - Limited-choice such as multiple choice, sentence completion, fill-in-the-blank, matching, true-false.
  - Usually provided in pencil/paper format, sometimes involving scan response sheets or administered on a computer.
- **Written or Constructed Student Creations**
  - Reports, papers, projects, products.
  - Usually done outside of class and involving research or reviews of a variety of information sources. Final products are assembled for submission.
- **Performances**
  - Demonstrations, events, presentations.
  - Students demonstrate skills and knowledge in simulated or authentic conditions. May focus on psychomotor skills but can also heavily involve cognitive skills and judgments, such as in counseling performances.

Paper/Pencil or Computer Examinations (Tests)

Purposes of Effective Assessments

- **Intended learning outcomes:** Measure what students should know and/or be able to do to show they have mastered the learning outcomes.
- **Knowledge and skills included in the instruction:** Measure the amount and quality of student ability to use information, examples, practices, and other related activities provided during instruction.
- **Enable generalization:** Allow inference from skills and knowledge tested that students have mastered the full range of skills and knowledge and the essential or key content points.

Alignment of Course Components

Assessments should align with the course objectives or specified learning outcomes and the content and activities included in the class. The appropriate range of content should be assessed, as well as the key points covered during instructional activities. The assessment should allow the student to demonstrate his or her knowledge and skill in the subject area.

Constructing Tests

Limited-Choice vs. Open-Ended Questions

The term "limited-choice" is used here to describe test questions that require students to choose one or more given alternatives (multiple choice, true/false, matching), and "open-ended" is used to refer to questions that require students to formulate their own answers (sentence completion, short answer, essay).

Deciding Which Type of Test Questions to Use

Whether it is better to use open-ended or limited-choice test items depends on the circumstances and on the goals of the test. Each type of test has its own sets of strengths and weaknesses. The advantages and disadvantages of the two main categories of test items are discussed below in terms of the various issues that are often considered when a test is being developed.

Table 1 - Comparison of Limited-Choice and Open-Ended Tests

Issue	Limited Choice	Open-Ended
Level of learning objective	Recall, comprehension	Problem solving, synthesizing
Content coverage	Wider sample	Greater depth
Practice and reward of writing and reading skills	No	Yes
Reward of creativity and divergent thinking	No	Yes
Feedback to instructor and student	Limited but fast	Thorough but slow
Length of exam (time to complete)	Short	Long
Size of class	Larger	Smaller
Reliability in grading	Very reliable	Requires work to become reliable
Exam construction and grading time	Long/short	Short/long
Test reusability	High	Low
Prevention of cheating	Low	High

Level of Learning Objective

In principle, both limited-choice and open-ended items can be used to test a wide range of learning objectives. In practice, most people find it easier to construct limited-choice items to test recall and comprehension, while open-ended items are used to test higher-level learning objectives, but other possibilities exist. Limited-choice items that require students to classify statements as fact or opinion go beyond rote learning, and focused essay-questions can easily stay at the recall level.

Related Chapter

Chapter 2
Determining Learning Objectives, for discussions of the different levels of learning outcomes.

Content Coverage

Since more limited-choice than open-ended items can be used in exams of the same length, it is possible to sample more broadly over a body of subject matter with limited-choice items.

Scoring and Grading

Limited-choice exams allow faster and more consistent scoring than open-ended exams. Open-ended exams require individual review and judgment of student responses and, therefore, take longer to score and may be scored more subjectively, even by the same reviewer. Unless graders are available, it is very difficult to give long open-ended exams and provide timely feedback in a high-enrollment course. Exams that consist mainly of limited-choice items are usually more practical under these circumstances.

Test Construction

Constructing good limited-choice exams takes much longer than open-ended exams because items must contain the pertinent information students need to answer the question, a set of appropriate distracters, and the correct answer. In addition, none of the information should include clues that point to the correct answer or be written in a way that confuses student reading and interpretation of the item. Open-ended exams, on the other hand, may be constructed quickly and easily because they usually consist of one or two direct statements or questions asking students to respond in writing. The chances of providing unwanted clues are greatly reduced, and there is no opportunity to confuse students with distracters that may be too close to the right answer.

Length of Exam and Student Response Time

Whether using limited-choice or open-ended exams, instructors should consider how much time students might need to respond thoughtfully to the test items. One frequent complaint from students is that they knew the material but there were so many items that they could not answer every question or could not take time to provide thoughtful answers. Asking a colleague or a graduate student who has taken the course to complete the test may give you some estimate of how many items can be completed during the time provided.

Reusability of Exam Items

In general, exams consisting of a large number of limited-choice items are easier to reuse than those consisting of only a few essay questions. More items are more difficult for students to remember and transmit to those who will take the exam later (if the printed exam does not get into circulation). If a large item bank is built and different exams can be randomly generated from the same pool of questions, limited-choice items are highly reusable.

Prevention of Cheating

Limited-choice exams provide more opportunities for cheating than do open-ended exams since single letters or numbers are far easier to see or hear than extensive text. Cheating on limited-choice items can be minimized in several ways, such as using alternative test forms and controlling students' seating arrangements.

Writing Limited-Choice Test Questions

In the discussion of limited-choice items below, the term "stem" is used to refer to the part of the item that asks the question. The terms "responses," "choices," "options," and "alternatives" are used to refer to the parts of the item that will be used to answer the question.

Example

Stem: Who is the author of Jane Eyre?

Responses:

A) Emily Bronte

B) Charlotte Bronte

C) Thomas Hardy

D) George Elliot

Multiple Choice Items

Advantages - Multiple-choice items are considered to be among the most versatile of all item types. They can be used to test students' ability to recall facts as well as their understanding and ability to apply learning. Multiple-choice items can also provide an excellent basis for post-test discussion, especially if the discussion addresses why the incorrect responses were wrong as well as why the correct responses were right.

Disadvantages - Unfortunately, good multiple-choice items are difficult and time-consuming to construct. They may also appear too discriminating (picky) to students, especially when the alternatives are well constructed, and open to misinterpretation by students who read more into questions than is there.

Suggestions for Constructing Multiple-Choice Items

Concerns about the general construction of questions

- Use negatively stated items sparingly. When they are used, it helps to underline or otherwise visually emphasize the negative word. Never use the word "not" in a multiple-choice question.
- Be certain there is only one best or correct response to the stem.
- Keep the number of alternatives at five or fewer. Beyond five alternatives, poor alternatives are likely.
- Randomly distribute correct responses among the alternative positions so that there are no discernible patterns to the answer sequence (e.g., ABBABBABB). Try to have a nearly equal proportion of As, Bs, Cs, etc., as the correct answers.

Concerns about the construction of the stem portion of the question

- Use the stem to present the problem or question as clearly as possible.
- Use direct questions rather than incomplete statements for the stem.
- Include as much of the item as possible in the stem so that alternatives can be kept brief. However, when applying definitions, it is recommended you place the terms in the stem and use the definitions as options, although this makes the questions rather long.

Concerns about the construction of the responses or options of the question

- List options on separate lines rather than including them as part of the stem, so that all options can be clearly distinguished.
- Keep all alternatives in a similar format (i.e., all phrases, all sentences, etc.).
- Be certain that all options are plausible responses to the stem. Poor alternatives should not be included just for the sake of having more options.
- Check all choices for grammatical consistency with the stem.
- Try to make alternatives for an item approximately the same length. Making the correct response consistently longer is a common error.
- Use misconceptions students have displayed in class, or errors commonly made by students in the class, as the basis for incorrect alternatives.
- Use "all of the above" and "none of the above" sparingly since students, on the basis of incomplete knowledge, choose these alternatives often.

- Use capital letters (A, B, C, D, E) as response signs rather than lower-case letters ("a" gets confused with "d" and "c" with "e" if the quality of the typeface or duplication is poor).

True/False Items

Advantages - True/false items are relatively easy to prepare since each item comes rather directly from the content. They offer the instructor the opportunity to write questions that cover more content than most other item types since students can respond to many questions in the time allowed. They are easy to score accurately and quickly.

Disadvantages - True/false items, however, may not give a true estimate of the students' knowledge since students have a 50/50 chance of guessing the correct answer. They are very poor for diagnosing students' strengths and weaknesses and are generally considered to be "tricky" by students. Since true/false questions tend to be either extremely easy or extremely difficult, they do not discriminate between students of varying ability as well as other types of questions.

Suggestions for Constructing True/False Items

- Keep language as simple and clear as possible.
- Use a relatively large number of items (75 or more when the entire test is T/F).
- Avoid taking statements verbatim from the text.
- Be aware that extremely long or complicated statements will test reading skill rather than content knowledge.
- Require students to circle or underline a typed "T" or "F" rather than to fill in a "T" or "F" next to the statement. This allows scorers to avoid having to interpret confusing handwriting.
- Avoid the use of negatives, especially double negatives. Never use "not."
- Avoid ambiguous or tricky items.
- Be certain that the statements used are entirely true or entirely false. Statements that are either partially true or partially false cause unnecessary ambiguity.
- Use certain key words sparingly since they tip students off to the correct answers. The words "all," "always," "never," "every," "none," and "only" usually indicate a false statement, whereas the words "generally," "sometimes," "usually," "maybe," and "often" are frequently used in true statements.
- Use precise terms, such as "50% of the time," rather than less precise terms, such as "several," "seldom," and "frequently."
- Use more false than true items, but do not exceed their use more than 15%. False items tend to discriminate more than true items.
- Avoid patterns in answers such as "all true," "all false," or "alternation."

Matching Items

Advantages - Matching items are generally quite brief and are especially suitable for who, what, when, and where questions. They can, however, be used to have students discriminate among, and to apply concepts. They permit efficient use of space when there is a number of similar types of information to be tested. They are easy to score accurately and quickly.

Disadvantages - Among the drawbacks of matching items are that they are difficult to use to measure learning beyond recognition of basic factual knowledge, and they are usually poor for diagnosing student strengths and weaknesses. Matching items are appropriate in only a limited number of situations, and they are difficult to construct, since parallel information is required.

Example

Notice the relative width of the columns in the "Cities of the World Quiz" on the following page. Also notice that the directions tell the learner what to do and answer possible questions about the format of the quiz.

Cities of the World Quiz

Directions: A description of, or fact about, a major city in the world appears as part of the numbered question. The city names are listed on the right. Write the capital letter corresponding to the correct city in the list on the line corresponding to each question. You may use cities from the list more than once. Some cities may not be described at all.

___1. The Seine river divides this city into two famous banks.

___2. This obscure Roman fortress city suffered four major fires on its way to becoming capital of an empire larger than Rome.

___3. The capital city of the Island of Taiwan

___4. Once a capital of the Roman empire, this city became the capital of the Eastern Orthodox faith.

___5. The tallest building in the world is located in this city.

___6. Called the "City of Big Shoulders," this city was once home to the world's largest stockyards.

___7. Home city to the Statue of Liberty

___8. Located on a continental divide, this city's builders reversed the direction of flow of water in the City's river.

___9. This city was once the winter capital of Japan.

___10. The Kremlin is located in this city.

A. Kyoto
B. Madison
C. London
D. Paris
E. Tallahassee
F. Chicago
G. Rome
H. Lisbon
I. Moscow
J. Taipei
K. Constantinople
L. Beijing
M. New York
N. Dubai
O. Cape Town

Suggestions for Constructing Matching Items

- Use only homogeneous material in a set of matching items, i.e., dates and places should not be in the same set.
- Use the more involved expressions in the stem, and keep the responses short and simple.
- Supply directions that clearly state the basis for the matching, indicating whether a response can be used more than once and stating where the answer should be placed.
- Be certain there are never multiple correct choices for one premise, although a choice may be used as the correct answer for more than one premise.

- Avoid giving inadvertent grammatical clues to the correct choice by checking that choices match each other in terms of tense, number, and part of speech.
- Arrange items in the response column in some logical order - alphabetical, numerical, chronological - so students can find them easily.
- Avoid breaking a set of items (premises and choices) over two pages.
- Use no more than 15 items in one set.
- Provide more choices than premises to make "process-of-elimination" guessing less effective.
- Number each premise for ease in later discussions.
- Use capital letters for the response selections rather than lower case letters. Insist that a capital letter be written in the area where the answer is placed.

Writing Open-Ended Test Questions

Completion Items

Advantages - Completion items are especially useful in assessing mastery of factual information when a specific word or phrase is important to know. They preclude the kind of guessing that is possible on limited-choice items, since they require a definite response rather than simple recognition of the correct answer. Because only a short answer is required, completion items require a wide sampling of content.

Disadvantages - Completion items, however, tend to test only rote and repetitive responses, and they may encourage a fragmented study style since memorization of bits and pieces of information can result in higher test scores. They are more difficult to score than forced-choice items, and scoring often must be done by the test writer since more than one answer may have to be considered correct.

Suggestions for Constructing Completion Items

- Use original questions rather than taking questions from the text.
- Provide clear and concise cues about the expected response.
- Use vocabulary and phrasing that comes from the text or class presentation.
- Provide explicit directions, when possible, as to what amount of variation will be accepted in the answers.
- Avoid using a long quote with multiple blanks to complete.
- Require only one word or phrase in each blank.
- Facilitate scoring by having the students write their responses online arranged in a column to the left of the items.
- Ask students to fill in only important terms or expressions.

- Avoid providing grammatical clues to the correct answer by using "a," "an," etc., instead of specific modifiers.
- Assign much more credit for completion items than for T/F or matching items.

Essay/Short-Answer Items

Advantages - Short-answer items, those limited to fewer than five full sentences, are interchangeable with completion items. Essay items, on the other hand, allow expression of both breadth and depth of learning, and encourage originality, creativity, and divergent thinking. Written items offer students the opportunity to use their own judgment, writing styles, and vocabularies. They are less time-consuming to prepare than any other item type.

Disadvantages - Unfortunately, tests consisting only of written items permit only a limited sampling of content learning due to the time required for students to respond. Essay items are not efficient for assessing knowledge of basic facts, and they provide students more opportunity for bluffing and rambling than do limited-choice items. They favor students' good writing skills and neatness, and they are pitfalls for students who tend to go off on tangents or misunderstand the main point of the question. The main disadvantage is that essay items are difficult and time-consuming to score and are subject to biased and unreliable scoring.

Suggestions for Constructing Essay/Short-Answer Items

- Use novel problems or material whenever possible, but only if they relate to class learning.
- Make essay questions comprehensive rather than focused on small units of content.
- Require students to demonstrate command of background information by asking them to provide supporting evidence for claims and assertions.
- Provide clear directions about expectations.
- Allow students an appropriate amount of time. It is helpful to give students some guidelines on how much time to use on each question, as well as the desired length and format of the response, e.g., full sentences, phrases only, outline, and so on.
- Inform students, in advance, about the proportional value of each item in comparison to the total grade.
- Keep grading in mind while creating the questions. Jot down notes of what you expect to see in student answers that help identify mastery of the subject matter.

Step-by-Step Guidelines for Creating Tests

- Determine which types of items are best for the testing situation, and then write them.
- Write explicit directions for the test sections indicating credit on each section.
- Organize the layout (group like items together; start with easy items; number the items).
- Make the answer key.
- Review patterns of responses (avoid sequences such as ABABCABABC).
- Use alphabetic, chronological, or numerical sequences to determine how response choices are organized, all of which will help you avoid getting into a pattern of responses.
- Develop a scoring method or scheme.
- Weight test points according to types of item, learning assessed, and student effort involved.
- Score test papers anonymously.
- Observe student confidentiality.
- **Review the final product.**
- Are the items concise?
- Have inadvertent clues been avoided?
- Do the number of items written for each objective, or topic area, represent the emphasis placed on them during instruction?
- Do the difficulty levels of the items seem appropriate?
- Is the length of the test appropriate?
- Are the test items readable (understandable)?
- Have spelling errors and typos been corrected?
- Ask an "outside reviewer" available to critique the test for content, difficulty level, and timing.
- Make final changes and then duplicate the test.

Constructing Performance Tests

Advantages - The truest measure of whether a learner is able to do something is to watch the learner do it. Performance tests provide an opportunity to make this kind of measurement. As long as you are able to observe the student's performance of a prescribed task, confidence in the student's ability is validated.

Disadvantages - While you may see a performance successfully completed, normalcy of the performance situations is not assured. Also, know that failure to perform may not show what the student has done or will do in the future.

General Guidelines

Different kinds of tests are appropriate depending upon some of the following general guidelines.

- **It is important to base the test on the specific skills or competencies that the course is promoting.** A course in family therapy, for example, might include performance tests on various aspects that are covered in the course, such as recording client data, conducting an opening interview, and leading a therapy session. Developing a performance test involves isolating particular demonstrable skills that have been taught and establishing ways in which the level of skill can be assessed for each student. For example, you might decide that the best way a student can demonstrate counseling skills, such as active listening, would be to have the student play the role of therapist in a simulated session.
- **Good performance tests specify criteria on which successful performance will be judged.** For curriculum areas in which it is possible to define mastery clearly, it is desirable to do so (e.g., "The student will be able to tread water for five minutes"). In most areas, however, effective performance is a complex blend of art and skill, and particular components are very subtle and hard to isolate. In these cases, it is often useful to try to highlight some observable characteristics and to define what would constitute adequate performance.

Example

In a test of teaching, students might be expected to demonstrate clarity, organization, discussion skills, reinforcement of student responses, and the like. Operational definitions for specific components to be evaluated may be phrased like the following excerpt from a teaching observation checklist: "Praises student contributions - The instructor acknowledges that s/he values student contributions by making some agreeable verbal response to the contributions. The instructor may say 'That's a good point,' 'Right, well done.' or the like." Such information is helpful to the student as well as the instructor who will be rating the performance.

- **Define the task as clearly as possible rather than simply alerting students to the fact that their performance will be observed or rated.** It is helpful to give students precise instructions on how the test will be structured, including how long they will have to complete the task, the conditions under which they will perform the task, and other factors that will allow them to anticipate and prepare for the test. If possible, set up a new testing situation by asking a student or colleague to go through a trial run before using the test with students so that unanticipated problems can be detected and eliminated.

- **It is important to give the same test or same kind of test to each student.** When possible, it is best to arrange uniform conditions surrounding a performance-testing situation. Students can be given the same materials to work with or the same task. Often, however, particularly in professional practice situations, it is difficult to control the context of a performance-testing situation. One nursing student may be evaluated while dealing with an especially troublesome patient, while another will be working with a helpful patient. In these situations, documenting and allowing for the contextual influences on the performance is an extremely important part of the evaluation.

In summary, the effectiveness of performance testing is directly related to how appropriate the test is, given the course objectives; how clearly the tasks are defined; how well the criteria for successful performance have been identified and conveyed; and how uniform the testing is for all students involved.

Related Chapter

Chapter 13
See **Grading** for a discussion of grading students in a performance situation.

- **Use a variety of item types.**
  It is often advantageous to include a mix of item types (multiple choice, true/false, essay) on a written exam or to mix types of exams (a performance component with a written component). Weaknesses connected with one kind of item or component or in students' test taking skills will be minimized. If a mix of item types is used on one exam, items of the same type should be grouped together.
- **Be cautious about test banks.**
  You should be cautious about using tests written by others. Items developed by a previous instructor or by a textbook publisher can save a lot of time, but they should be checked for accuracy and appropriateness for the given course, and whether they are written according to the standards of test construction.
- **Test early.**
  You will find it helpful to test early in the semester and, if results are poor, consider discounting the first test. Students often need a practice test to understand the format each instructor uses and to anticipate the best way to prepare for and take particular tests.
- **Test frequently.**
  Frequent testing helps students avoid getting behind, provides you with multiple sources of information to use in computing the final course grade (thus minimizing the effect of "bad days"), and gives students regular feedback.

Suggestion from an instructor in Information Management Systems, College of Business - "I give quizzes every week. (I don't count two of the quizzes, giving the students a chance for a cut and to drop their lowest grade. Some of the quizzes do not require study or effort but they do tell me if the students are understanding very general concepts....) The students studied for the quizzes, and I believe they did better on the mid-term and final exam than students in other sections of the course largely because of the quizzes."

- **Test in proportion to the emphasis a topic was given in class.**
  It is important to test various topics in proportion to the emphasis they have been given in class. Students expect this practice and study with this expectation.
- **Show items to colleagues before printing the test.**
  Written exams should be proofread with care and, when possible, a second person should be asked to proofread them. Tiny mistakes, such as mis-numbering the responses, can cause problems later. Also, check carefully for missing pages after collating.
- **Reuse effective test items.**
  If enough test items are developed and kept out of circulation between tests, it is possible to develop a test item bank from which items that are known to be effective can be reused on multiple versions or offerings of a test. (See Using Item Analysis to Test the Test for information on how to determine the effectiveness of test items.)
- **Do not use a series of questions in which answering successfully depends on knowing the correct answer to a previous item.**
  Generally, on either a written or performance test, it is wise to avoid having separate items or tasks depend upon answers or skills required in previous items or tasks. A student's initial mistake will be perpetuated over the succeeding items or tasks, penalizing the student repeatedly for one error.
- **Pilot-test the exam.**
  A good way to detect test errors in advance is by pilot-testing the exam. You can take the test yourself or ask colleagues and/or former students to critique it.
- **Be aware of the needs of special students.**
  It is important to anticipate special considerations that learning- disabled students or non-native speakers may need. You must decide whether or not these students will be allowed the use of dictionaries, extra time, separate testing sites, or other special conditions.
- **Bring extra copies of the test to class.**
  Having too few copies of a written exam can be a disaster. You can avoid problems by bringing more copies of the exam than you think will be needed. Also, when duplicating the test, be certain that no pages are missing. Missing pages can pose a serious problem unless a contingency has been planned.

- **Do not interrupt students while they are taking the exam**.
  Before the exam, students can be informed that they should check the board periodically for instructions or corrections. You can minimize interruptions during the exam by writing on the board any instructions or corrections that need to be made after the exam has begun and then calling students' attention to them.

Helping Students Learn from Tests

Testing's most important function is to serve as an educational tool, not simply as a basis for grading. Not only do tests direct students' studying, but also provide important corrective feedback for the student.

Returning Test Papers

Returning test papers promptly is appreciated by students and conforms to traditional learning principles. However, if you do not plan to discuss the papers, do not hand them back at the beginning of the hour or you risk losing students' attention for the rest of the hour.

Although students appreciate your returning examinations to them, there may be some question as to whether you should return multiple-choice examinations. Multiple-choice items are difficult to construct, and you may not want the items to "get out." However, you can return separate answer sheets so that your marking and arithmetic can be checked. Allow students to have copies of the examination while you go through the test. If you follow this method, however, certain questions arise. Does such a procedure destroy the validity of the items in future tests? Do the students benefit from an exam review? These are experimental questions to which we have only partial answers, but evidence suggests that validity is not lost and that students do learn from their corrected papers, even when they do not get to keep them. Although you may not wish to spend class time quibbling over some individual items, you should make known your willingness to discuss the test individually with students.

Providing Feedback for Essays and Short-Answer Tests

The comments written on essays and short-answer tests are far more important than the grade. What kinds of comments are helpful? Look for problems that arise from a lack of ability to see relationships, implications, or applications of material. Help students find alternative ways of looking at the problem rather than simply noting that something is wrong.

Comments that provide correction and guidance may not achieve their purpose if students become so discouraged that they give up. The motivational as well as the cognitive aspects of comments need to be considered. Misconceptions must be identified, but not in overwhelming number. Encouragement and guidance for improvement should set the overall tone.

Suggestion

When you review an essay or short-answer test in class, describe what you had expected in a "good" or "satisfactory" answer, and then discuss common inadequacies. Read an example of a good answer (without identifying the student), and construct a synthetic "poor" answer as a contrast.

Reviewing Limited-Choice Tests

A small-group exercise is a technique for helping students learn from mistakes while reducing their tendency to complain about the appropriateness or fairness of test items. Instructors using this technique break the class into small groups of five to eight students. Each group discusses the test for part of the class period. When they have finished, unresolved questions are referred to the instructor as the expert. This method seems to permit dissipation of the aggressions aroused and to limit arguments to points where there are several aggrieved students.

Dealing with Special Problems

What about the student who comes to your office in great anger or with a desperate appeal for sympathy but with no educationally valid reason for changing the test grade? First, listen. Engaging in a debate will simply prolong the unpleasantness. If you decide not to change the grade once you have heard the student out, try to convert the discussion from one of resistance to problem solving. Try to help the student find alternative modes of study that will produce better results. ("What can we do to help you do better next time?") Encourage the student to shift from blaming you or the test toward motivation to work more effectively.

Suggestion

A technique that will reduce the number of students coming to your office in a state of high emotion is to ask students who have complaints about grades to write a paragraph describing their complaint or point of view. State your willingness to go over the test with anyone who brings in such a paragraph. This technique has a calming effect, resulting in fewer unfounded complaints and more rational discussion with those who do come to your office.

While these suggestions may save you some bitter moments, they cannot substitute for the time (and it takes lots) devoted to the construction of good tests.

Adapted with permission from: A Guidebook for University of Michigan Teaching Assistants. Center for Research on Learning and Teaching, University of Michigan and from: Teaching Tips: A Guidebook for the Beginning College Teacher (9th ed.) by W. J. McKeachie (1994).

Using Item Analysis to Test Your Test

After a test has been administered, a good way to judge its quality, particularly in the case of a limited-choice test, is to perform an item analysis. It is especially important to do this when test items will be reused or when there is sufficient doubt about students' test results to consider dropping some items as invalid when computing the final grade. Machine scanned test forms or software can be used for an item analysis. It is possible to perform an item analysis without a computer, especially if the test is short and the class size is small.

Procedures for Computing Difficulty and Discrimination Indices

- Score each test by marking correct answers and putting the total number of correct answers on the test.
- Sort the papers in numerical order (highest to lowest) according to the total score.
- Determine the upper, middle, and lower groups. One way to do this is to call the top 27% (some people use the top third) of the papers the "upper group," the bottom 27% (some people use the bottom third), the "lower group," and the remaining papers, the "middle group."
- Summarize the number correct and number wrong for each group.
- Calculate the difficulty index for each item by adding the number of students from all groups who chose the correct response and dividing that sum by the total number of students who took the test. The difficulty index will range from 0 to 1, with a difficult item being indicated by an index of less than .50 and an easy item being indicated by an index of over .80.
- Calculate the discrimination index by first calculating for both the upper and lower group students the percentage of students who answered each item correctly. Subtract the percentage of lower group students from the percentage of upper group students to get the index. The index will range from -1 to +1, with discrimination over .3 being desirable and a negative index indicating a possibly flawed item.

Table 2 illustrates **item analysis** for a simple set of scores for 37 students on a 10-item test. The names of the 10 students (approximately 27% of the total students) with the highest scores are listed as the upper group; the 10 students with the lowest scores (again, approximately 27%) are listed as the lower group; and the remaining 17 are listed as the middle group. On item 1, for example, the difficulty index was calculated by totaling the correct responses and dividing by the number of students (19/37 = .51). The item appears to be on the difficult end of the range.

The **discrimination index** for the same item was obtained by first calculating the percent correct for both the upper and lower groups - 20% and 90% respectively - then subtracting the percentage for the lower group from that of the upper group (.20 - .90 = -.70). This negative discrimination index indicates that the item is probably flawed. Note that the students who scored poorly on the exam as a whole did well on this item and the students who got the top total scores on the exam did poorly - the reverse of what one would expect. A mistake in the answer key or some error in the question that only the more discriminating students would catch might be the cause. If the answer key is correct, this item should be dropped from the test. Such items should be revised before being used on a test again.

Sample Test Grid for 10 Items

Item Numbers

	1	2	3	4	5	6	7	8	9	10
Upper Group										
Ellen	C	C	C	C	C	C	C	C	C	C
John	C	C	C	C	C	C	C	C	C	C
Albert	W	C	C	C	C	C	C	C	C	C
Joanne	W	W	C	C	C	C	C	C	C	C
Maria	W	C	C	C	C	C	C	C	C	C
Anne	W	C	C	C	C	C	C	C	C	C
Doris	W	C	C	C	C	C	C	C	C	C
Joshua	W	C	C	C	C	C	C	C	C	C
Barbara	W	C	C	C	C	C	C	C	C	C
Michael	W	C	C	C	W	C	C	C	C	C
# Correct	2	9	10	10	9	10	10	10	10	10
# Wrong	8	1	0	0	1	0	0	0	0	0
Middle Group										
# Correct	8	12	12	13	12	13	11	11	12	12
# Wrong	9	5	5	4	5	4	6	6	5	5

Lower Group										
Lucille	C	C	C	C	W	C	W	C	W	C
Joseph	C	C	C	C	W	C	W	C	C	C
Charles	W	W	C	C	C	C	W	C	C	W
Leslie	C	C	C	C	C	C	W	C	C	W
Jerome	C	C	C	C	C	C	W	C	C	C
Nancy	C	C	C	C	C	C	W	W	C	W
Judith	C	C	W	C	C	C	W	W	W	W
Ralph	C	W	W	W	C	C	C	W	W	W
Beth	C	C	W	W	W	W	W	W	W	C
Donald	C	W	C	C	W	C	W	W	W	C
# Correct	9	7	7	8	6	9	1	5	5	5
# Wrong	1	3	3	2	4	1	9	5	5	5
Difficulty										
Index	.51	.76	.78	.84	.73	.86	.59	.70	.73	.73
Discrimination										
Index	-.7	.2	.3	.2	.3	.1	.9	.5	.5	.5
	C =	Correct								
	W =	Wrong								

Adapted with permission from: Teaching at the Ohio State University: A Handbook. Center for Teaching Excellence (1990).

Cheating on Tests

The University has an Academic Honor Code that calls for the coordinated efforts of faculty members and students to uphold academic integrity and combat academic dishonesty, including cheating and plagiarism. The Academic Honor Code includes descriptions of violations of the code, statements of student and faculty responsibilities for upholding the code, and explanations of academic penalties for violating the code. A description and information of the Academic Honor Code can be found in the current **Student Handbook.**

Preventing Cheating

- **Reduce the pressure.**
  The first action you can take is to reduce the pressure on students. While you cannot influence the general academic atmosphere that places heavy emphasis on grades, you can influence the pressure in your own course. One method to accomplish this is to provide students with several opportunities to demonstrate their achievement of course objectives rather than relying upon a single examination.

- **Make reasonable demands.**
  A second way to reduce cheating is to make sensible demands. Write fair tests and design reasonable assignments. Some cheating is simply the result of frustration and desperation arising from assignments that are too long to be completed adequately or tests that require the memorization of trivial information. Remember, some students view cheating as a way of getting back at an unreasonable instructor.
- **Treat students as individuals.**
  Work to develop and maintain students' sense of individuality and having a personal relationship with you and their classmates. Students are not as likely to cheat in situations where they are known as individuals, whereas they may be tempted to cheat in situations where they feel they are anonymous members of a crowd. If a large course has regular meetings in small discussion or laboratory sections, there is likely to be less cheating if the test is administered in these groups than if the test is administered en masse. Moreover, if it is in their regular classroom, they will perform better.
- **Show an interest in your students.**
  Cheating is more likely to occur when students think the instructor is disinterested and unconcerned. Instructors often feel that any show of active proctoring will indicate that they do not trust the students. However, it is possible to convey a sense of alert helpfulness while walking between desks and watching for questions.
- **Use alternate seating**.
  The most common form of cheating is copying from another student's paper. To minimize opportunities for copying, try to recruit proctors and administer exams in a room that is large enough to enable students to sit in alternate seats. Before students arrive, write on the chalkboard: "Please sit in alternate seats."
- **Use alternate test forms.**
  Another way to reduce cheating is to use two or more alternative forms of the test. This method can be achieved by simply scrambling the order of the test items. Instructors who want the test items to follow the order that the material was covered in the course can scramble the items within topic areas.
- **Be careful with extra copies.**
  Do not leave copies of tests lying around your office, the typist's office, or photocopy room.

Adapted from: *Teaching Tips: A Guidebook for the Beginning College Teacher (9th ed.),* by W. J. McKeachie, Lexington, MA: D. C. Heath. (1994).

Handling Cheating

Despite preventive measures, almost every instructor must at some time or other face the problem of what to do about a student who is cheating. Policies for handling cheating are set by the University as well as by departments. FSU's Faculty Handbook provides specific information about university policy. There are assessment devices, other than tests, that can be used to provide measures of student performance, including:

- Essays
- Term papers
- Research reviews
- Reports
- Case studies
- Portfolios
- Projects
- Performances
- Peer evaluation
- Mastery
- Simulations

Just as with tests, the underlying principles to keep in mind as you introduce alternative assessment tools are validity and reliability. A tool you use for measurement will be valid as long as it measures student learning of goals and objectives set for the course. The measurement will be reliable if you expect to get similar results administering the chosen assessment tool to the same group of people again. It will have the additional benefit of reusability, if it can be used in multiple instances, including future classes.

Available media and equipment influence the choice of assessment tools. But the principle factor involved in the choice of an assessment strategy is the overall design of the course. Good design principles demand that the assessment strategies be chosen as part of the overall instructional plan before the course actually starts.

- **Essays** are written assignments in which the student is the source of information. Essays report on things the student knows or thinks. Reference is not a major part of an essay. But an essay requires the student to use high-level thinking skills. There may be preparatory activities involved with writing an essay. For instance, an assignment may ask a student to read several articles from several viewpoints and then derive his own viewpoint from the articles. The expectation in giving the assignment is that the student will apply reasoning skills and reach a conclusion that is well-reasoned. The actual position reached is not the main value of the essay, and should not be evaluated unless your objective is to have students' opinions agree with your own.

  Essays expose student reasoning-processes. An assignment of a practice essay (that is not figured into the course grade) near the beginning of a course gives the instructor an idea of whether the student's reasoning skills are adequate for pursuing the course. If a change in reasoning skills is a desired course outcome, an essay assigned near the end of the course is a good way to tell whether the desired skills have been attained.

- **Reports** (and term papers) usually have a specific topic that may be assigned by the instructor or selected by the student. When a student reports on a set of facts or events, accuracy of the student's description is the main concern. The report often includes a provision for commentary by the student. The student's commentary is presumed to reflect the student's point of view accu-

rately about the facts, events, or issues of the report. Research on which a report is based may use a variety of sources including experimentation and documentation. The amount of research for a report varies. In a report based on documentation, credit for quotations and concepts should be included.

- **Research reviews** ask a student to find out what research about a topic area has been done. Unless the student is asked to synthesize the results of the research, reviews offer little room for a student's free expression or creativity. If the same research review is assigned to a group of students or a class, duplication of the research found should anticipated. The assignment measures the ability of the student to use available research tools and the ability to judge whether articles found qualify as appropriate references for the subject at hand.
- **Case studies** are often associated with problem-based learning. They are used to assess a learner's ability to analyze, make decisions, and solve problems.
-

Related Chapter

Chapter 8
Using Active Learning in the Classroom,
provides learning through case studies is addressed.

Case studies measure depth of learning to a greater extent than most limited choice tests, which focus on memorization skills. Used as an assessment tool, the instructor usually creates the case that can be contained within the allocated assessment time. Like the case studies used for learning, case-study assessments contain a number of circumstantial descriptions that provide guidance through the project. While there are self-consistent solutions, there are no "perfectly right" answers. Students look at the circumstances, bring them into their own personalized conceptual frameworks, and then try to provide solutions. Consequently, answers may be phrased in various ways, but must include all salient points and exclude inaccurate points.

Advantages: Case studies assess the readiness of learners to use their skills in real world contexts. The student may expose both the process of working through a case and the results obtained. This allows the assessment to focus on either the process or the product. The student should be informed ahead of time whether process or product will receive the greater weight. Cases are equally easy to present in computer-based, hard-copy, or audio-based form. They lend themselves to either collaborative efforts or individual efforts.

Student answers to case-type problems may, with permission of the students involved, become models for answers to cases delivered in subsequent classes. If prior student work is used to model poor performance, care must be taken to keep the student's name and identity anonymous. It is probably better to con-

struct poor examples, if they are needed, rather than use student work.

Limitations: The cases may require considerable effort to create or select. The tendency to collaboration makes it difficult for teachers to assess individual contributions to team efforts. Grading case studies take a long time and tends to be highly subjective. Subjectivity is greatly reduced, however, by using guidelines and rubrics that specify the features that will be assessed in the answer.

Contextual considerations: Case studies can be used with almost any available media. Cases can be presented in print, audio, video, computer, or Internet depending on what the learners have available. Proposed solutions can be designed for presentation using any of these media choices. Where the Internet is available, using collaborative learning tools, such as those included in Blackboard, allows tracking individual participation in collaborative activities, provided all parties have agreed to use these tools. This means that where cases are assigned to groups, individual contributions to group effort can be assessed in a limited sense. A tracking system may note the number of contributions an individual makes to a discussion, but rarely evaluates the quality of those contributions. Checking samples from an archive of the discussion often gives a truer picture of individual student efforts.

- **Portfolios** contain all the work that students collect to demonstrate how their work has progressed and developed over time. The student, over the length of the course, will have been involved with and probably completed several projects. In most cases, it is wise for teachers to set standards for portfolio contents in terms of number, quality, and size of projects to be included. Fine Arts and Performing Arts classes are likely to include portfolios among the assessment tools used. Other instances where tangible products result from student efforts are also good places to use portfolios. For instance, a business class may create a portfolio that includes a business plan, some presentations, and an implementation timeline as evidence of completion of course objectives.

  Advantages: Assessing portfolios encourages extended thinking and reasoning. Where privacy is an issue, sharing project contents should be strictly controlled. The student is completely responsible for decisions about what to include and is therefore led to considerations of quality in what will be submitted. Except for setting standards, teachers do not have much to do with the construction of the portfolio and are free to guide learners toward completion of their portfolio projects. A wide variety of media choices is available for the types of projects that may be included.

  Portfolios are useful in a wide range of subject areas. Besides the arts, where it makes sense to let students demonstrate their capability with produced work, such areas as writing and even mathematics have been assessed with portfolio type assessment tools. In writing, student style and organizational skills are demonstrated with portfolios. In mathematics, data

analysis and problem solving may also be assessed with portfolio work.

Limitations: Grading is highly subjective. The teacher sees only the successes of the student and leaves all failed projects out of grading considerations. Grading portfolios can take a long time. Portfolios can show development on a broad spectrum of work or allow students to concentrate extensively on very narrow areas of a field of study. This strength of the portfolio approach allows students to mask weaknesses in other areas. Extensive use of portfolios may encourage students to repeat earlier successes rather than to undertake new challenges.

Contextual considerations: Projects must be constructed in a media form compatible with the available media. Mediation of the projects in the portfolio to match delivery system capabilities may distort the value of the project. For example, a portfolio of art work loses scale information and impact when displayed on a computer monitor. Where such distortions are likely to happen, the student should be made aware of them and requested to take measures to offset the distortions (through labeling, etc.). Also, handing a portfolio physically puts a large and potentially valuable body of student work at risk.

- Term papers are valuable to students because they provide them with an opportunity to be experts in small but relevant areas of the field. They should be limited to one per term. Term papers are long for most students and are a significant part of the work for the term. A term paper should be introduced early in a course and collected near the course's end. It should contain some requirement for research, and a strong indication that the student has mastered the course material as it was presented over the term of the course. A term paper is a type of project, and the characteristics and recommendations for projects apply (see next bullet).

Suggestions for making term papers more effective measures of learning:

- Ask students to write to readers other than you, such as peers, experts in the field, or specific journals.
- Clarify what the final term paper should do: classify, explain, summarize, demonstrate, generate, or design.
- Let students know your expectations concerning:
  - ◇ Academic discourse conventions
  - ◇ Level of formality
  - ◇ Structure: introductions, bodies, conclusions, and internal organization options
  - ◇ Formatting instructions: length, margins, typing, cover page, page numbering, and documentation style. Give samples, if possible.
  - ◇ Charts, graphics
- Assist in the writing process:
  - ◇ Students bring in drafts and respond to each

other's work.

- ◊ Conduct individual conferences.
- ◊ Photocopy a past student's draft and critique it as a class.
- ◊ Encourage students to take their drafts to the Writing Center.
- ◊ Schedule the workload.

- When grading term papers:
  - ◊ Avoid being too directive, commenting on every grammatical error or global problem, and avoid making vague or generic comments.
  - ◊ Respond to strengths and weaknesses.
- When responding, save yourself time by:
  - ◊ Marking patterns in grammatical errors, or have students find the errors.
  - ◊ Focusing on three or four major issues.
  - ◊ Having students peer review the term papers before turning them in.
  - ◊ Having students visit the Writing Center.
  - ◊ Designing your assignment carefully.
  - ◊ Using a grading rubric.
- Projects - A teacher may request one large project or several smaller projects during a student's course of study. The assessments of student performance on the project(s) collected may make up the whole or a part of a student's course performance. Monitoring the student's ongoing progress toward completion of a project moves the emphasis of instruction and assessment away from outcome and toward process. Large projects create an opportunity for the instructor and the student to work with each other. Typically, an instructor will assign a large project to the student, then check the student's progress at various stages, offering advice for changes to be made along the way.

  Advantages: Students doing projects work outside the boundaries of the classroom. Classroom time-constraints play a limited role in how projects turn out. Student effort is given to organizational activities along with problem solving. This allows the instructor to see the student's work at its pinnacle, much like a portfolio. Presentation of some or all of the projects by their creators can be a classroom enhancement activity. Students should know in advance whether all projects or a sample of projects will be presented. The student-to-teacher interactivity involved in most projects provides feedback to learners at the most appropriate time in a student's learning process - while a project is being done. Interaction between teacher and student helps keep the student on schedule toward project completion.

  Limitations: Since so much of the project is done outside the classroom setting, it is very difficult to monitor what the student is doing while completing

the project(s). Different levels of acceptable outside help may need to be defined. The pacing of projects comes from both the student and the instructor, and consequently does not faithfully represent the student's own ability to set a pace. Providing feedback to the student in a timely manner requires large amounts of teacher time and frequent teacher check-ins.

Contextual considerations: Interactive projects are very well suited to Internet-based teaching tools. Tools for project interactivity over the Internet, such as "Common Space" (for writing), are becoming readily available at low cost. The use of these complex tools greatly facilitates working with this strategy, although there is a need to learn how to use the tools that may take away from available contact time. Feedback on projects must be timely, since pacing can be easily upset by long teacher delays.

- **Performances** require a student to perform in a classroom or at a special facility where performances of the type in question are done. Typically, there will be some measurement of the quality of the performance requested. The instructor alone, the instructor and the rest of the class, or a larger invited group, may view performances.

  Advantages: Pre-established criteria help the student by clarifying the evaluation standards, letting students see strengths and weaknesses that they have relative to these criteria, and demonstrating that the grading system used is consistent.

  Limitations: The number of available criteria that can be applied to measurement of student performance is incredibly high. No single checklist is likely to encompass every aspect of what students do when they are asked to perform. The richness of available criteria, however, does not make assessment of a live performance impossible. Instead, it makes precision in matching the choice of included criteria to learning objectives more critical than ever. For example, if you were making a performance checklist for a dance performance, you would almost certainly include some criteria related to the execution of the performance. But would you include criteria related to the choreography? You would probably only include this if the student was responsible for the choreography. Would you include a measure for the warmth of a student's smile while dancing? It depends on whether your instruction included any encouragement of the act of smiling as something that enhances stage presence.

  You want to be fair to the students as much as possible in the checklist criteria you include. If your learning objectives are at particular levels, the performances on your checklist should be at the same levels. Creating scales and rubrics provides guidance for measuring what are often spontaneous and subjective performances. In general, students should be aware of the objective criteria on which performances

are measured.

- **Peer Evaluations:** The idea behind the use of peer evaluation as an assessment tool is that a student's peers, who have had to work with and contend with a student, have a good idea of that student's contribution level. The higher the grade levels of the students, the more likely this is to be the case. By asking students to review other students' products, results, or performances, you can take account of experiences in which you were not directly involved. Peer evaluation often involves the use of a measurement instrument distributed multiple times. This presumes that all of a student's peers participate in the evaluation. Sometimes, the number of instruments to be completed and counted may be reduced through varying both the assignment of partners and the assignment which peers get to review. Some formula for compiling the instrument results yields an indication of each student's peer evaluation score. Peer evaluation, when used at all, should be only a part rather than the whole of a student's final grade.

  Advantages: Peer evaluation fills a gap in the usual assessment process that exists because so much of a student's performance is unseen. Peer evaluation instruments, while subjective on an individual basis, provide data through which a quantitative measure of subjective judgments is accumulated. The feedback of measured information to the student, in carefully chosen circumstances, may motivate improvements in student performance. Group dynamics are being measured with these instruments, which is important in environments that value active participation in collaborative activities.

  Limitations: Peer evaluation may measure student popularity or some phenomenon other than the one the instructor wants to assess. Although the instruments are used to gather data, the data are an accumulation of subjective judgments. Summary of the measurement-instrument results is time consuming. A set of standards should be provided and explained to students, or students may agree among themselves on the standards they will use in determining peer performance.

  Contextual considerations: In computer-mediated, distance-education environments, collaboration is often a significant part of the learning experience. Peer evaluation is the only tool that measures this collaboration from the group's point of view. The negative influences of poor in-group performances by some students may be brought to light. Where computers are used to mediate communication in the educational environment, they can be used to aid in gathering and summarizing peer evaluation data making peer evaluation strategies easier to use.

- **Mastery Models** - When it is important that a skill be mastered, an "all or nothing" approach, similar to pass/fail, may be the best indicator. This is particularly true when a skill that will see later use in the learning process

is first being learned. To assess using a mastery model, it is typical to assign a project that involves the use of the new skill, so that handing in a successfully completed project serves as an indication of the skill having been mastered. In many cases, the learner may take an unlimited number of tries without penalty, but will pass once mastery has been demonstrated. In essence, this model is like pass/fail for the steps along the way to achieving course objectives.

Advantages: Mastery models are not competitive - everyone can and will master the skill. Such models have high validity and reliability, and they provide a clear and direct measure of success in reaching learning objectives. Students also have the ability to avoid the need to relearn redundant material.

Limitations: Mastery models are only applicable in skill-learning situations. While they measure the mastery of a skill, there are different levels of mastery that are not measured beyond the minimum competency level. Because everyone passes eventually, mastery leaves open the question of how to give grades. When everyone succeeds, there needs to be a difference between A and D, but this method incorporates no distribution of grades that may be used for determining the difference. While applying the principles of mastery learning helps students get through courses, the non-competitive nature of the learning makes it difficult to assess inside a competitive framework.

- **Simulations** - In an assessment that uses simulation, students are placed into an environment that, in many significant ways, looks and behaves like the environment where learning will actually be applied. They are given opportunities to perform in the simulated environment. Some record of their performance is used as the basis for assessment.

  Advantages: The use of simulations reduces the student's exposure to situations that could have strong negative consequences if performance was done improperly in a real-world situation. A classic case of simulated assessment is the airplane cockpit simulator that monitors student performance in handling the controls of an airplane but will not crash. Simulations do not have to reach this level of complexity, however. Students have learned social skills such as job interviewing by playing their roles as if they were really going through an interview process.

  The simulation provides a more accurate measure of performance than just asking students to describe how they would do something. Simulations can be repeated to achieve continuous improvement until a standard level of performance is reached.

  Limitations: Simulations must be designed for each situation in which performance is being assessed. Designing and building the simulations is costly and time consuming. Once a student is made aware that the situation is a simulation, stresses associated with real world performance are significantly reduced, resulting in an inaccurate measure of the student's actual capacity to perform.

Contextual considerations: The simulation exercise must be tested and calibrated at the student's location. Many simulations are done with computers, and this makes their assessment results easy to pass on to other computers.

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Chapter 13 - Grading

This chapter discusses grading philosophies, presents suggestions that will help to maintain fairness and consistency in your grading, and discusses issues that should be addressed in course planning.

- **Grading Philosophies**
- **Purposes Served by Grades**
- **Types of Grading**
- **Attributes of Grading Methods**
- **Evaluating Performance**
- **Other Grading Considerations**
- **Fairness in Grading**
- **Rights of Student and Instructor**
- **Writing Assignments and Their Evaluation**
- **Checklist for Designing Writing Assignments**
- **Sample Explanations of Grades Given for Writing Assignments**
- **Analytic and Holistic Scoring on Writing Assignments**
- **Suggestions - When Grading Writing**
- **Designing Essay Assignments and Writing Projects**
- **Resources on Student Assessment**

Grading Philosophies

Grading is a major concern to both new and experienced instructors. Some are quite strict at the beginning to prove that they are not pushovers. Others, who may know their students personally, are quite lenient. Grades cause a lot of stress for undergraduates; this concern often seems to inhibit enthusiasm for learning for its own sake ("Do we have to know this for the exam?"), but grades are a fact of life. They need not be counterproductive educationally if students know what to expect.

Grades reflect personal philosophy and human psychology, as well as efforts to measure intellectual progress with objective criteria. Whatever your personal philosophy about grades, their importance to your students means that you must make a constant effort to be fair and reasonable and to maintain grading standards you can defend if challenged.

College courses are supposed to change students; that is, in some way the students should be different after taking your course. In the grading process you have to quantify what it is they learned, and give them feedback, according to some metric, on how much they learned.

The following four philosophies of grading are from instructors at FSU. Which is closest to your philosophy?

Philosophy 1 - Grades are indicators of relative knowledge and skill; that is, a student's performance can and should be compared to the performance of other students in that course. The standard to be used for the grade is the mean or average score of the class on a test, paper, or project. The grade distribution can be set objectively by determining the percentage of A's, B's, C's, and D's that will be awarded. Outliers (really high or really low) can be awarded grades as seems fit.

Philosophy 2 - Grades are based on preset expectations or criteria. In theory, every student in the course could get an A if each met the preset expectations. The grades are usually expressed as the percentage of success achieved (e.g., 90% and above is an A, 80-90% is a B, 70–80% is a C, 60 - 70 a D, and below 60 is an F). Pluses and minuses can be worked into this range.

Philosophy 3 - Students come into the course with an A, and it is theirs to lose through poor performance or absence, late papers, etc. With this philosophy the teacher takes away points, rather than adding them.

Philosophy 4 - Grades are subjective assessments of how a student is performing according to his or her potential. Students who plan to major in a subject should be graded harder than a student just taking a course out of general interest. Therefore, the standard set depends upon student variables and should not be set in stone.

Instructor's Personal Philosophy

Florida State University does not have a suggested grading philosophy. Such decisions remain with the instructors and their departments. However, the grading system employed ought to be defensible in terms of alignment with the course objectives, the teaching materials and methods, and departmental policies, if any.

The grading system as well as the actual evaluation are closely tied to an instructor's own personal philosophy regarding teaching. Consistent with this, it may be useful to consider in advance factors that will influence instructors' evaluation of students.

- Some instructors make use of the threat of unannounced quizzes to motivate students, while others do not.
- Some instructors weigh content more heavily than style. It has been suggested that lower (or higher) evaluations should be used as a tool to motivate students.
- Other instructors may use tests diagnostically, administering them during the semester without grades and using them to plan future class activities. Extra credit options are sometimes offered when requested by students.
- Some instructors negotiate with students about the method(s) of evaluation, while others do not. Class participation may be valued more highly in some classes than in others.

These and other issues directly affect the instructor's evaluation of students' performance.

As personal preference is so much a part of the grading and evaluating of students, a thoughtful examination of one's own personal philosophy concerning these issues will be very useful.

Grades can serve many purposes. The purpose and the appropriate type of grading system should be clear to you and to your students.

Purpose 1 - Help students improve their performance. Grades are a way of telling students how they are doing with regard to understanding course content and developing skills. If grades are to be effective communication for this purpose, they must be combined with feedback to the student about what is wrong and how the student can do better.

In this sense, an **A** means: "You are doing very good or excellent work; you demonstrate an ability to converse and apply the major and minor concepts of the course and a willingness to put in the effort necessary to become proficient in continuing to study the subject in the future. Keep up the good work."

A **B** might be interpreted as: "You are doing a good job in this course; you demonstrate understanding of the major concepts; and your work reflects an ability to apply these concepts and rules in a reasonable manner. With more time and effort you might expect to do better."

A **C** might mean: "You exhibit satisfactory work in the course on the major concepts, but do not seem to have a good grasp of the detail and or subtleties of the content or skills. It is recommended that you seriously consider whether you should continue to take courses in this area. With more time and effort you might be able to perform at a B level."

A **D** means: "You are barely able to apply the concepts and knowledge in the course; you are doing the assignments or exercises, but they do not show much ability to continue in this area."

An **F** means: "You are not performing well in this course; assignments are weak or missing. You might want to consider your preparation and/or dedication for courses such as this."

Purpose 2 - Provide information to the student and others regarding your professional opinion of the potential of this student as to the content and skills being studied. In this sense, you are communicating to other faculty, potential employees, and even the student's family about the effort and skill the student is exhibiting in your class.

Here, an **A** might mean: "This is a very good student, with good learning skills for this subject, who should be encouraged to pursue study in this area."

A **B** might be interpreted as: "A good student with potential for the area if he or she applies him or herself."

A **C** means: "This student passed the course at a satisfactory level, but does not demonstrate real strength in the area."

A **D** means: "This student shows minimal skills in this area, and should not be encouraged to pursue this field."

An **F** shows: "Unsatisfactory performance."

The two basic types of grading are normative (comparative) and criterion (mastery).

Normative

Philosophy 1, stated above, leads to normative grading. In normative grading one assumes that the students in the class represent a normal distribution of intelligence that will result in a similar distribution of learning. Descriptive statistics are often associated with normative grading, and often the terms "curving the scores" or "grading on a curve" are used. This curve is often called a "bell" curve. The curve is centered on the mean score, and the distribution is often indexed by the standard deviation of the scores.

While the measurement of many physical and psychological phenomena fit into bell-shaped distributions, it is unreasonable to think that one would see this type of distribution over course content after instruction. After all, the purpose of instruction is to develop among the students a common set of understandings and skills. Obviously, not all students will be equally successful, but the hope is that the curve will be highly biased in a positive direction. Why would an instructor want to assume that the distribution would be normal? A better question is, "Why would an instructor want to normalize the distribution with statistics so that certain percentages of students would fall into each of the categories?"

Wilbert McKeachie (1986), in his book Teaching Tips for College Teachers, notes:

Grading on a curve stacks the cards against cooperative learning, because helping classmates may lower one's own grade. The problem of grading on a curve seems to arouse the most heated discussion for assigning failing grades. Logically, it would seem that an instructor should be able to designate some minimal essentials, mastery of which would be necessary for passing. (pp. 105-106)

Criterion

Criterion-referenced grading is more in line with McKeachie's suggestion. The criterion is preset, as a percentage or number of points, or standards that represent performance at an A, B, C, D, or F level. For instance, 90% or better = A, 80-89% = B, 70 – 79% = C, 65% - 69%= D, <64% = F.

Or, a course might have five quizzes each worth 10 points; a paper or project worth 25 points; and a final exam worth 25 points. Since combined these equal 100 points, the same scale as above could be easily applied.

Comparison of Norm- and Criterion-Referenced Grading

Norm-Referenced	Criterion-Referenced
Compares the performance of individuals against one another.	Compares the performance of individuals against preset criteria.
Spreads out a grade distribution.	Grades may be clustered at the high or low ends.
Hooked to content.	Hooked to course objectives.
Encourages competition.	Encourages collaboration.
Grades affected by outliers.	Grades not affected by how other individuals perform.
Does not help the student in knowing how to improve.	Can be used diagnostically to indicate strengths and weaknesses.

Rubric

A more generic type of indicator could be in the form of a rubric, which is a descriptive scale with values attached, as shown in the following table.

A (95 pts)	All major and minor goals achieved Pluses for work submitted on time, and carefully proofread Minuses for work submitted late or resubmitted
B (85 pts)	All major and most minor goals achieved Pluses for work submitted on time, and carefully proofread Minuses for work submitted late or resubmitted
C (75 pts)	Most major goals and minor goals achieved Pluses for all work carefully proofread Minuses for work sometimes late or redone
D (65 pts)	Sufficient goals achieved to warrant a passing effort
F (0 pts)	Few goals achieved

The above rubric would be accompanied with a list of the major and minor goals for the course, or assignments to which the rubric was applied, and, of course, the criteria or points awarded would be changed to meet the needs of the particular course or assignment. Rubrics are very popular for grading essay exams. Rubrics also can be used for other types of authentic assessments such as projects, portfolios, presentations, and discussion board posts.

Attributes of Grading Methods

Many different types of evaluations may be effective depending upon the design of specific course materials and goals. However, good grading methods are characterized by the following attributes.

Validity

- **Face Validity** - It is of paramount importance that whatever method of evaluation is employed you must accurately measure the skill or knowledge that the method seeks to measure. It also is important that evaluations exhibit face validity, which refers to the degree to which elements of the evaluation appear to be related to course objectives. Students often complain that they see no connection between the evaluation and course objectives. It is therefore necessary not only that the instructor make a connection between the evaluation and the course but also that the student is able to do so.
- **Content Validity** - Evaluations also must have content validity. Regardless of the format of the evaluation, it must conform closely to course objectives. If a course objective states that students will be able to apply theories of practice to case studies, then an evaluation should provide them with appropriate cases to analyze. Finally, effective methods of evaluation have certain predictive characteristics. A student who performs well on an evaluation concerning a certain skill might be expected to perform well on similar evaluations on related skills. Additionally, that student would be expected to score consistently when evaluated in the future.

Reliability

The concept of reliability is closely related to, and often confused with, validity. A reliable method of evaluation will produce the same results (within certain limitations) for the same student across time and circumstances. While it is understood that performances will vary, the goal is to eliminate as many sources of error as possible. It has been noted that the three most common sources of error in evaluating students reliably are:

- **Poor communication of expectations** - It is imperative that the student understands the question or the task assigned. Poor student performance can be the result of a failure to provide clear instructions.

> **Example**
>
> Assignments should always be written to avoid any verbal misunderstanding. The results of a failure to communicate are often a poor grade given to a student who may actually have mastered the subject matter.

- **Lack of consistent criteria for judgment** - This exists where the basis for making the judgment is not clear. When consistent criteria are absent, the same grader can evaluate identical tasks differently at a later date or by a different grader concurrently. However, if a specific set of criteria is established prior to the evaluation, error in this area can be diminished.

- **Lack of sufficient information about performance** - Another source of error in evaluating students occurs when the instructor does not have a sufficient amount of information. It is important that this information reflect a student's performance in a variety of formats. Clearly, using a single paper submitted at the end of the semester to determine the entire course grade would violate this principle.

Remember - "The faculty member has the responsibility to explain to students in his/her classes at the beginning of each term the specified grading standards to be used along with a statement of the goals and objectives of the course to be taught."

Grades and Grading Practice, Faculty Handbook

Realistic Expectations

Consideration must be given to the fact that students are also enrolled in several other courses that demand their time and attention. Instructors also are limited in the number and types of evaluations they can develop and administer in any individual course, while still grading and returning work in a timely fashion. Ideally, these constraints can be recognized and the best possible system of evaluation can be generated within these parameters.

Evaluating Performance

Performance vs. Recall of Knowledge

In some fields, such as dance and art, students are evaluated on their performances, rather than on predictors of their performance. This evaluation generally involves individual observations of performances and performance evaluation reports. Also, this method is characteristic of academic courses that result in a final project, such as computer programming courses.

Guidelines for Evaluating Performance, as identified by Stritter, Hain, and Grimes (1975):

- The most effective evaluations are descriptive. You should describe the behavior in clear terms rather than in interpretive terms. Attempts to report what is observed rather than making assumptions about students' intent are most valuable.
- Specific descriptions are preferable to generalizations. Students need to know as precisely as possible exactly which parts of their performance need to be improved.
- Evaluation is most effective when it is timely. Provide feedback as soon as possible after the performance of the tasks. If the behavior is distant in time to the performance, the student is more likely to discount it as inaccurate.

- Evaluations should contain information about changeable behaviors that will be beneficial to the student. Feedback concerning students' personalities is inappropriate and unlikely to produce results. However, evaluations of behavior that can be altered can result in improved student performance.
- Evaluation is most useful when the students and the instructor clearly understand precisely what skills or tasks are expected to be mastered and exactly how those skills will be reflected or graded in the performance.

Other Grading Considerations

You should specify in advance if you will be considering attendance, attitude or effort, and participation in the final grade. It is essential to make clear which behaviors are being targeted and what the expectations of the instructor are.

- **Attendance** (or the lack of it) in undergraduate (and sometimes graduate) classes can be a problem. Many professors tie attendance to grades in that unexcused absences incur a penalty, which is factored in at grade time. Some examples we have seen include:
  - ◊ Each unexcused absence reduces the total number of points earned in the course by X.
  - ◊ Three unexcused absences will result in a grade of F.
  - ◊ Tests missed because of unexcused absences will be graded as 0 points.

  If you are grading attendance, be sure your class time is meaningfully used, or students will be resentful. Also, if you are grading attendance, do it in a systematic, regular manner. Students are very clever about ways to get on the attendance list without being in class.
- **Attitude or Effort** - Instructors who choose to grade on attitude or effort will be pressed to justify decisions, so it might help to have specific criteria or tasks that will be related to the grade. Pop quizzes or assignments based on required readings may be used to motivate and document student preparation and attendance.

  Students also interpret grades as a measure of their self worth. They often relate how long and hard they worked at something that only demonstrates a modest understanding. Student effort must be recognized but should not be a consideration in assigning a grade. Statements such as - "I can see how much effort you put into this to attempt to understand it. I am happy to be able to give you a B on the skills you have demonstrated. Keep up the good work" - might help students understand that you recognize the subject is difficult for them, but because of their effort, they are performing at a good level.
- **Participation** - Some instructors keep a running record of contributions during discussion sections or ask a student to do so. To avoid putting shy or inarticulate students at a disadvantage, an instructor might ask for written comments or questions to be submitted, or offer to be available for personal talks at other times.

Grade Inflation

When all the students in a class get A's, or a high percentage of A's and B's, other professionals can interpret the distribution differently. Are these students so different from the general mix of students that they perform that much better in your classes? Are you such a good teacher that all your students are performing at "very good" and "excellent" levels? If true, then by all means give the grades with confidence. However, giving good grades to students who do not earn them is not helpful either to the student or to your department. Sure, all students would like an A, but those who spend the time and effort to earn an A do not enjoy seeing those who merely slid by be given similar grades.

The only way to avoid this situation is to have definite goals and standards for performance. A senior professor once advised, "You only get what you ask for and what you will accept." Therefore, if you expect a lot, then ask for a lot, and assign grades with regard to performance.

Above all else, students get upset when they think that they have been graded unfairly. The most common complaint is a lack of alignment between what was taught and what was tested. **This is the reason why we so strongly stress the alignment of objectives, learning activities, and assessments**.

There is no perfect test. Any assessment will have errors in it because of insufficient sampling, ambiguity, misconceptions, fatigue, multiple interpretations, new knowledge, etc. With this is mind, remember that a test score is an approximation of actual performance or skill. Instructors must be flexible about grading and be ready to remove a question from a test if the question is a poor one (not necessarily because no one answered it correctly; rather, because the good students missed it and the poorer students answered it correctly). One way to avoid poor questions is to link them to the lesson or course objectives.

Grading Principles

- Tell students how you are going to grade them. Let them ask questions to clarify anything they are uncertain about.
- Ask students if they have any concerns about your grading system, and consider the rationale for their concerns.
- Let them know how attendance and missed exams will affect their grades.
- Give them multiple opportunities to show what they have learned. A few short tests generally give better information than a single long one.
- Provide corrective or informative feedback that will help them improve as the course progresses.
- Grades linked to course learning outcomes stated or printed in the syllabus are more defensible than those that are not.
- Grades are important to students, and it is important to be fair.

- Do not get into an argument about how something was graded. Have the students present their case; listen to what they are saying; determine how you would feel if you were in their position; and, finally, explain the grade and why you think it was fair, or change it based on the new information.

Privacy of Student Grades and Records

Posting Grades

The Family Educational and Privacy Act and federal regulations are interpreted to require the student's consent to release non-directory information. When posting grades of students who have given their consent for the posting of grades by social security number, the faculty member should not arrange the list in alphabetical order.

Faculty Handbook

All students in the university have a basic right to privacy, and it is the responsibility of the instructor to respect and safeguard that privacy. The Family Educational and Privacy Act, commonly known as the Buckley Amendment, dictates that information about students cannot be released without their express permission. Although this ruling most directly concerns staff members who work with academic, disciplinary, psychological, and placement records, instructors must take care that student grades and records are handled in a confidential manner.

- **Never discuss one student's grades with another student** or with any other person. Of course, you may discuss a student's performance with those who have a professional "need to know" such as other faculty members involved with that student.
- **Never allow students to pick up papers for absent friends.** Return written work only to the student concerned.

Instructors' Legal Considerations

To avoid legal complications, document your decisions as carefully as possible and be consistent. Keep grade books secure. Some departments also require retaining them for some time after the course is over. Instructors are advised to check with their departments for specific schedules concerning the maintenance of these records. Some instructors also protect themselves by keeping lines of communication open and taking the opportunity to prevent cheating when possible by making it hard to copy answers during exams, making it difficult to change corrections of returned papers, being careful to check-off completed assignments, and the like.

Possible Cheating by Students

If you do not have any definite proof of plagiarism or ghostwriting, your actions are quite limited. To determine if your suspicions are warranted, you might talk with the students in question and ask them how they decided on the topic or found the references, but, unless this talk provokes a confession, it is hard to take further action.

Be certain to include in your syllabus the definition and description of plagiarism. Students are not always aware of the issues. Simply letting the student know that you pay close attention, however, may encourage the submission of original work in the future. Some instructors attempt to avoid this situation by giving assignments that will not welcome cheating.

Example

If the same term paper has been assigned in Psychology 101 for five years in a row, some "oldies" with new names are likely to surface. Also, if a topic is very broad - a paper on anything in history - it is easy to find something to submit that may not be original or intended for that course.

Plagiarism Detection Website

FSU instructors have access to a plagiarism detection function, SafeAssign that is a part of BlackBoard. This text-matching process provides resources on developing topics and assignments that encourage and guide students in producing papers that are intellectually honest, original in thought, and clear in expression. SafeAssign helps instructors create a culture of adherence to the University's standards for intellectual honesty. It also reviews students' papers for matches with Internet materials and with thousands of student papers in its database, and returns an Originality Report to instructors.

You will need to inform students that you will be using SafeAssign. Include a statement on your course site and syllabus, such as, "In this course, students will submit papers through the Blackboard website to the instructor. Student papers will then be submitted to SafeAssign to generate an originality report of matches with pre-existing materials. Papers with low originality scores will receive further investigation according to departmental procedures."

Questions to consider when using a plagiarism detection tool:

- What will be your syllabus/course website statement informing students about your use of SafeAssign?
- Will you permit students to see their originality reports?
- Will students submit hard copies as well?
- What will be your threshold for incorrect citations?
- What procedures will be followed if you determine that a student has plagiarized?
- How will you use SafeAssign to educate students about plagiarism?

Related Chapter

Chapter 3
Creating a Syllabus.

Why add writing assignments?

Your students will learn far more if you add a writing requirement to your course. Writing is a form of thinking, whatever the subject to be learned, because writing is actually reasoning our way to what it means. Writing across curriculum is a method of getting students to learn a discipline that appears alien and forbidding (e.g., science courses for art majors). No subject is too hard if students take the time to read, think, and write clearly.

Teaching Writing

If you do include writing assignments in your course, you will be teaching writing. Instructors tend to assume that their students have learned to write somewhere else, but often they have not. You may feel inadequate to teach writing, but in fact, you are a more experienced writer than your students and you know more about the goals for your writing assignments than your students.

Two Types of Writing Assignments

It is important to take time during class to discuss writing strategies and the thinking skills behind the writing.

- Writing Exercises - Explanatory writing transmits existing information or ideas. The central point of students' writing exercises is to find out what they know and how they want to say it. The writing is linear and sequential. Students can make clear to themselves a subject that they have previously known nothing about by just putting one sentence after another, by reasoning their way in sequential steps to its meaning - if sentence B logically follows sentence A, and if sentence C logically follows sentence B, eventually the student will get to sentence Z.

  Writing, thinking, and learning are the same process. Students must first learn to reason well. Writing organizes and clarifies thought - how we think our way into a subject and make it our own. Students do not know how to be precise, and are generally guilty of fuzzy thinking.

Suggestion

Assign a one-page paper on your subject that will show students' critical thinking skills. These writing exercises should be graded on clarity, common sense, logic, plausibility, and precision, not for the content of their views. Your subject is important but not as important as clear reasoning, for without it, students will not learn your subject. An idea can have value in itself, but its usefulness diminishes to the extent that a student cannot articulate it to someone else.

- **Practice Writing About Your Discipline** - With this type of writing assignment, students are entering the ongoing discussion in your discipline. A piece of writing should be viewed as a constantly evolving organism. Most students have been taught to visualize a composition as a finished product, with topic sentences in place, etc. Here, the shift is to process - putting the emphasis on

rewriting and rethinking that mold a piece of writing into its best form. One of the underestimated tasks in nonfiction writing is to impose narrative shape on an unwieldy mass of material. Students must do more than write with clarity; they must organize their sentences into a coherent shape, taking readers on a complicated journey without losing or boring them with too many details.

Writing is learned mainly by imitation. If you have previously taught a course that required a Practice Writing assignment, present the best papers from the students in those classes as a model for your current students. Also, every discipline has a body of good writing that can be used as a model (e.g., Stephen Jay Gould for paleontology, Lewis Thomas for biology, and Robert Coles for child psychiatry). But it is advisable to use such superior examples with discretion, as they can be intimidating to some students, particularly in the lower-level courses.

Suggestions

Bring articles to class that you consider to be well written and explain why you think so. Students will be forced to think about elements that go into good writing, and the articles will show that there are many different kinds of good writing. Or, have students select magazines or other publications in which they would want to be published. Then, have them write an article for the publication.

Adapted from *Writing to Learn* by William Zinsser (1993). New York: HarperCollins.

Assignment Suggestions

- Write your course goals, and then write your assignments to fit your goals. Devise a writing assignment **you** want to read; that is, 40-50 versions of the assignment.
- Break longer assignments into parts, but be certain the parts are not too small (e.g., progress reports rather than outlines). And if you require a certain process, then reward students by grading the process as well as the product.
- Complete the writing exercises assignment yourself before you assign it to students. You will have a sample to show students.
- If you are a Teaching Assistant, you may find that some students will dispute your competence to evaluate them and their grades - no matter how well you write the assignment or how clear your grading criteria are. Do not allow a few students to persuade you that you need to be more detailed in your assignments. After a certain point, more information is not helping them; they simply ask more questions. If you are discussing the writing assignment in class, a one-page handout describing a writing assignment and grading criteria should be sufficient.
- Assign drafts of students' papers, and ask them to hand them in. Drafts should be part of their final grade. If you point out problems on students' drafts, they can correct them before the final paper is due. Also, a class activity where students read each other's rough drafts may be more important than some other activity.

- If you mark all the mechanical errors on students' papers, wanting them not to repeat the mistakes, you must explain each error and why it was wrong. If a student has logic problems, problems with English as a Second Language (ESL), or just too many mechanical errors to make herself understood, the student needs the help of a tutor in the English Department's Reading/Writing Center.
- Ask students for feedback about your writing assignments. Ask, when they turn in the final version of their paper, what they wish they had known before they started, what confused them the most, what they learned from the assignments, what they would have done differently, what problems they encountered, what they think about their own paper, etc.
- There is no fast way to grade papers, but you can save yourself time. When you return a set of papers to students, include a page-long report that explains the grades you gave in general. This report will save you from repeating a lot of the same comments on many papers.

Excerpted from *Advice about Making Writing Assignments and Evaluating Them*. Assistant Professor Ruth Mirtz and Teaching Associate Genevieve West, Department of English. Fall Teaching Conference: 1996.

Checklist for Designing Writing Assignments

____ Rationale or purpose for assignment

- Connect the assignment to the goals for the course.
- Connect the assignment to other reading and writing assignments.
- Include goals that include critical thinking and writing improvement.
- Place most important goals first, not last.

____ List of steps or tasks to be undertaken

- Break the assignment into a reasonable number of parts.
- Note how long each step might take and what problems might arise.
- Be specific about how many texts should be read, how many questions discussed.
- List questions to be answered.
- Indicate how much choice students have in the topic, process, and structure.
- Indicate whether there will be oral components (class presentation, conference).

____ Audience for the text and how much they know and what they need to know

- Peers with a similar level of knowledge
- Experts in the field
- Younger students with an interest in the material
- A hostile audience that needs persuading

____ Intermediate writing texts and activities, such as drafts and outlines

- Indicate on what kind of draft you will provide help.
- Indicate what you think a "working" draft is; that is, describe the level you want.
- Describe how to get feedback on a draft.

____ What the final product should do and not do

- Should it summarize, define, explain, describe, persuade, argue, support, or demonstrate?
- List structure desired - introductions, bodies, conclusions, and internal organization options.
- Describe what the final product is NOT: not a book review, not a personal reaction paper, etc.
- Explain academic discourse conventions or disciplinary style you want in the Practice Writing for Your Discipline exercise. Are students aware of the level of formality needed (use first person or avoid passive-voice sentences)?

____ Formatting instructions (what the final product should look like)

- Length, margins, typing, cover page, page numbering
- Documentation style (give sample, if possible)
- Charts, graphics
- Level of correctness; suggest editing procedures; suggest a specific handbook for reference

____ Grading criteria

- Describe paper at each grade level: "The best papers will have…" (See Sample Explanations of Grades Given for Writing Assignments.)
- List absolute criteria.
- Make sure most important criteria are listed first, not last.
- Make sure grading criteria correlate with the purpose of the assignment.

____ Policies for written assignments, if necessary

- Plagiarism policy
- Late paper policy
- Your availability to read drafts or have conferences
- Reading/Writing Center, Phone: 644-6495

____ Sample paper or assignment

- Annotate the sample to point out the important thinking operations it shows.
- Go over a sample in class using an overhead projector.

____ Method of feedback (for yourself) during and after assignment sequence

- Ask students to write a progress report a week or two before the final version is due.
- Ask students to write a five-minute report on what they leaned from the assignment.
- Ask students to add a "memo" to you about what problems they encountered.
- Include questions about writing assignments on midterm and final evaluations of the class.

Adapted from Assistant Professor Ruth Mirtz and Teaching Associate Genevieve West, Department of English. Fall Teaching Conference: 1996

Sample Explanations of Grades Given for Writing Assignments

In the following sample explanations of grades given for writing assignments, students were to write a paper based on a specific text.

- **An "A" paper addresses the assignment carefully and thoughtfully, and then goes a little beyond it to say something original.** The paper identifies a clear and focused thesis about the text, following it in a well-organized manner, presenting a clear and persuasive argument to support the thesis and adequate evidence to back it up. The writer paid close attention to the text, citing specific passages and discussing them in relation to the thesis by carefully considering what they reveal about X's project, his assumptions, and his conclusions.

  Such a paper maintains a consistent style, presents quotations effectively, avoids repetition and digressions, and is proofread to catch all grammatical errors and create smooth and effective transitions. In addition to a clear introduction setting up the thesis, an A paper also has a thoughtful conclusion discussing the implications of the argument and encouraging the reader to consider the issue further.

- **A "B" paper addresses the assignment but does not go beyond it in any significant way.** It may also lack a clear structure. The paper identifies a thesis but does not fully explore the way the issue plays itself out

in the text or considers its implications. The paper may make some intelligent connections but not explore them fully, or it may have a thoughtful thesis that is not fully developed.

Some B papers have the feeling of being unfinished, as if they could have been placed within a larger framework (such as U.S. society, world issues, or the overall socioeconomic system within which education occurs). Many B papers have the capacity to be A papers with one more draft. Perhaps the thesis needs to be more clearly articulated, or more textual evidence needs to be cited. Sometimes they need to be organized more effectively or more carefully proofread; indeed, sometimes working on the grammatical and organizational structure allows the writer to see how to strengthen the overall argument.

- **A "C" paper addresses the assignment somewhat but seems to miss its essential point or go off on a tangent that never connects back to the thesis.** The paper often does articulate an interesting thesis but then either contradicts itself or simply moves off in another direction.

  Some C papers are the result of the writer's unfamiliarity with the text; however, more often they result from the writer having too much to say on an issue about which he has strong feelings. This excess of emotion gets in the way of a purely rational argument and may produce strong but unsupported (or even insupportable) assertions. It frequently produces an excess of grammatical errors, as well.

  Many C papers have the capacity to be A papers with one or more careful drafts. If they lack a clear thesis and thus do not present their arguments strongly, the writers can return to the introduction and carefully state what the paper will prove, then reorganize the paper around that. Papers that earn a C because of the strong emotions they aroused in the writer often become truly excellent papers because the writer's feelings provide incentive for the necessary revisions. On the other hand, papers that earn a C because the writer did not know the text well enough should generally be abandoned and started from the beginning after the writer has reread the text.

- **A "D" paper does not seriously address the assignment.** It may raise some issues that connect with the assignment, but for the most part reveals a lack of understanding of the assignment or, in some cases, a writer who was simply not yet ready to begin the paper and needed more time to consider the issues carefully. The paper may address a question outside of the text, using the text as a jumping-off point to discuss something raised in it, rather than analyzing the text itself. Or the paper may simply be an elaborate plot summary of the text that raises important issues and maybe makes relevant connections, but does not say anything about them.

  These papers may have occurred because the writer was not sure how to write analytical papers or because the writer felt strongly about issues raised in the book and allowed those feelings to get in the way of the real

assignment. In either case, the paper should be used as "research notes" toward another paper, rather than a first draft of a paper to be revised. Reading over the paper carefully often reveals an issue that could become the thesis of another paper, and much of the summary in the paper can be used to support the argument. The existence of strong feelings can lead to an exploration of why the text provoked such a strong reaction, and this, in turn, produces effective analysis.

- **+/-: The plus or minus part of the grade represents the top and the bottom range of the letter grade rather than a different set of concerns.** These grades often reflect grammar and style issues that mar an otherwise good paper or that raise the reader's appreciation of a paper whose content needs work. Stylistic and grammatical revisions rarely raise a paper grade more than one of these subdivisions (e.g., from a C to a C+).

Excerpted from Howard, R. M., & Jamieson, S. (1995). *Ethnicity and identity in the U.S. The Bedford guide to teaching writing in the disciplines*. Bedford/St. Martin's: NY, NY.

Two methods for evaluating student writing are analytic and holistic scoring. The **analytic** approach considers writing to be made up of various features such as creativity, grammar, succinct expression of concepts, and punctuation, each of which is scored separately. An analytic writing score is made up of a sum of the separate scores and is often a weighted sum developed after multiplying each score by numbers representing the relative importance of the features the instructor wishes to emphasize. **Holistic** scores are obtained by comparing individual student essays to model essays, representing good, fair, and poor responses to the assignment.

A third variation is global scoring, which assumes that writing is the sum of various features, but assigns the final score without the use of a scale. This method, which is used most frequently in casual approaches to grading writing, tends to result in less precise evaluation.

Analytic Scoring

Analytic scoring is the traditional approach to grading writing. Instructors who use analytic scoring view writing as a demonstration of many isolated skills that when graded separately and added together will result in an appropriate evaluation of the piece.

Strengths

- Helps instructors keep the full range of writing features in mind as they score. An essay that is poorly punctuated may present a good analysis of a problem and/or strongly state a position. The punctuation may overwhelm the instructor to the degree that she fails to notice the achievements in the essay and grades it too low.
- Allows students to see areas in their essays that need work when accompanied by written comments and a breakdown of the final score. Its diagnostic nature provides students with a road map for improvement.

Weaknesses

- Time consuming. Teachers are usually required to make as many as 11 separate judgments about one piece of writing. Furthermore, not all students actually make their way through the analytic comments so painstakingly written on their papers nor will all be able to make profitable use of those comments on succeeding writing assignments.
- Negative feedback can be pedagogically destructive. Teachers who combine analytic scoring with confrontational or unclear comments, especially about issues of grammar, may actually inhibit student growth.

To maximize the effectiveness of analytic scoring:

- A written analytic scale, such as the one that follows, helps to define grading criteria clearly and, if shared with students, can foster an understanding of what is expected and how their paper will be evaluated.
- Criteria are weighted according to their relative importance. For instance, if the goal of an assignment were the assimilation of course materials, then logic, ideas, arrangement, and resourcefulness would be rewarded more than grammar and mechanics.
- Feedback in the form of marginal and end comments is most effective when the comments balance challenge and support. Writing is tough to do, and most students, from having too little practice, feel inadequate about their writing.
- Instructors can downplay the possible confrontational effect of grading by being sensitive to such issues as using sarcasm in their comments, obliterating a student's work with lines and the like.

Example of Analytic Scoring Scale

Criteria Weight	4	3	2	1	0
1. Recognition of main points - 30%	accurate				inaccurate
2. Ability to summarize - 10%	succinct				too much/little
3. Ability to distinguish and analyze the differences between the two approaches/viewpoints/analyses - 20%	clear, insightful				vague
4. Ability to state a position - 5%	clear				confusing
5. Ability to support a position with information derived from the articles - 15%	adequate, logical, refers to articles				inadequate, illogical, no reference articles
6. Organization - 10%	clear				confusing
7. Readability: Language use and mechanics - 10%	appropriate, correct, contributes to communication				inappropriate, incorrect, interferes with communication

Note: Scoring guide from Farris (1987)

Holistic Scoring

Writing experts have developed a special process for grading writing - holistic scoring - that is especially useful in grading large numbers of essays. Usually, more than one evaluator grades student essays. Using evaluative criteria developed from the learning objectives for a writing assignment, an instructor selects several student essays that exhibit high, average, or low achievement. These models then become the standards by which the instructor and one or more graders evaluate a group of essays. Each evaluator reads the student paper quickly and determines whether it is stronger or weaker than its closest equivalent among model essays.

In a typical English program, holistic scoring is done on a four-point scale. Three model essays are chosen: the 4/3 model is above average, the 3/2 model is average, the 2/1 model is below average. A student essay that is better than the 4/3 model receives a 4. A paper not as good as the 4/3 model, but better than the 3/2 model, receives a 3, and so on. Each rater makes only two decisions: 1) which model essay is most like the student's essay to be scored, and 2) whether it is better than, or worse than, its model counterpart.

When a grader has determined the score of a student essay, the grader marks the appropriate number in one corner of the front page of the essay, folds down the corner so as not to influence other graders, and passes the paper on to the next grader. When all the papers have been scored at least three times, the final scores are given a letter grade equivalent.

Example

Holistic ratings = Totals = Letter-grade equivalent

4 + 4 + 4 = 12 = A
4 + 4 + 3 = 11 = A
4 + 3 + 3 = 10 = B+
3 + 3 + 3 = 9 = B
3 + 3 + 2 = 8 = B
3 + 2 + 2 = 7 = C+
2 + 2 + 2 = 6 = C
2 + 2 + 1 = 5 = C
2 + 1 + 1 = 4 = D
1 + 1 + 1 = 3 = E

The qualities each number stands for are as follows:

The **4 essay** will state a concrete thesis that is directly related to the assigned topic. The essay will focus on a central idea and show a sure grasp of logical progression. The thesis will be substantiated with specific examples or details and will demonstrate the writer's ability to select effective, appropriate words and phrases, to construct and organize sentences, to make careful use of transitional devices and to maintain an appropriate tone throughout. The paper will be free of serious mechanical errors.

The **3 essay** will have a clearly stated thesis that is logically and adequately developed. This essay should contain most of the qualities of good writing itemized in the discussion of the "4" essay, but differs by lacking the real distinction of the latter, although it should show competence. It may contain a thesis that is rather awkward or tedious. Too many examples may be used or occasionally used inappropriately. Word choices and sentence structure should show competence, but may falter occasionally. There may be some mechanical errors, but these should not be numerous or reveal a lack of basic competence.

The **2 essay** will meet only the basic criteria, and those in a minimal way. The paper should present a central idea with sufficient clarity so that the reader is aware of the writer's purpose, but it may take some effort to isolate the writer's point. The organization must be clear enough so the reader can see how the writer means to achieve her purpose, but the organization may be weak. The essay should provide evidence, but it will probably be underdeveloped or poorly related to the central idea. The paper will give one the impression that the writer knows what sentences and paragraphs are, but little else. Mechanical errors will be more frequent with some more serious than in the "3" essay.

The **1 essay** will show very little competence. The thesis, if present, will be difficult to locate or incomprehensible. The paper will not focus on the assigned topic. Instead of a logical progression, there may be nothing more than listed, underdeveloped points, and the mechanical errors will be so substantial as to bring into question the writer's grasp of the most basic compositional and grammatical skills.

As with analytic scoring, it is important that students are made aware of the method of evaluation and criteria in advance of their writing.

Advantages

- **Inter-rater reliability**. Holistic scoring is considered by some to be the most consistent and reliable method of scoring writing available.
- **Efficiency.** Holistic scoring takes much less time to do. Each reader of a holistically scored essay reads the essay through quickly, matching its quality to that of one of the model essays. With the models firmly in mind, a holistic grader's first impressions of an essay are highly reliable.

Weaknesses

- **While the score given will be reliable, the student will not necessarily know the reason behind his grade.** Most instructors go back and make some kind of end comment on holistically scored essays to give the student some idea of why the essay was better or worse than the model essays. Formative comments with regard to specific areas in need of improvement are not available to the student. Model essays can be given to the students for comparison.
- **Holistic grading can be impractical for individual instructors.** While an individual instructor could go through a stack of papers looking for high, middle, and low models and grade the rest of the papers according

to these models, the best situation for holistic grading occurs when two or more instructors work together. Holistic grading is ideal for large enrollment courses where two or more TAs are responsible for the grading.

- Peers can provide useful suggestions on their classmates' papers before they turn in the final draft. To help students learn what to look for, examples of old essays (with authors' names deleted) that have been marked showing common problems can be provided.
- More than one draft of a single paper may be useful for learning. Requiring students to resubmit encourages them to work through problems before submitting the final draft.
- How instructors comment can be as important as what they comment on. Writing specialists prefer comments on content problems phrased as questions (e.g., rather than writing "Confusing" in the margins, one might say, "I was with you until you began discussing 'active learning.' What do you mean by 'active learning'? Why is 'active learning' an important point here?").
- Do not use editor's shorthand when commenting on student papers (e.g., "Awk" for "awkward"). While convenient for the instructor, this type of comment lacks explanatory power for the student. If a passage is awkward or a word choice is incorrect, it is more informative to let the student know why.
- Instructors need not feel as though they must find every error in a student paper. Writing specialists recommend putting a check mark in the margins next to a line containing a misspelling or other minor error. This places the burden back on the student to discover the error.
- Not all writing assignments need to be graded. For example, instructors who assign journals often evaluate only a small percentage of the journal entries students have been assigned to write. The rest of the entries are simply counted to make sure that students are keeping up with their work.
- Occasionally, an instructor will have students who need additional help with their writing. If so, you may contact the Reading Writing Center in the English Department, 644-6495. Also, see ACE Tutoring Services at Strozier Library, 445-6660.

Sample Essay Grading Standards

Grading Standards for Written Assignments in AML 3680

Key Elements and Points

Inquiry (30 points)	
A	**B**
• Based on original, logical, and coherently organized set of ideas. • Presents a clear and persuasive argument; addresses relevant topics in the readings. • Demonstrates an understanding of the topic, the text(s), and the critical issues raised. • Shows a thoughtful understanding of the author's position(s). • Addresses significant points and events in the assigned reading.	• Evidences a true inquiry. • Raises insightful questions occasioned by the text. • Undertakes some sustained inquiry into those questions. • Shows a good, close reading.
C	**D**
• Essay is marred by one of the following: • Lack of insight • Failure to raise substantive, interpretive questions • Careless reading	• Essay is marred by one of the following: • Lack of insight • Failure to raise substantive, interpretive questions • Careless reading • Argument is underdeveloped

Research (40 points)	
A	**B**
• Makes use of brief textual quotes that exemplify significant points in the reading. • Uses specific, relevant examples that back up assertions. • Uses two outside sources accurately and thoughtfully in conversation with the text. • Sources used put the writers and their works in a cultural, critical, geographical, folkloric, and/or historical context. • Sources are cited either in-text or with a "Works Cited" list. Articles are from academic sources and scholarly journals (online scholarly journals suffice). Web articles are used only as leads to track down information, not as sources. • Discusses how the research helps deepen student's understanding of the work. • Includes student's opinion and critical judgments of the material. • Avoids talking about whether student "liked" or "disliked" the reading(s).	Paper has what is required for an "A," except one of the following: • Does not include quotes from the reading(s). • One of the sources falls short. • Missing discussion of how the research helps deepen the understanding of the work. • Student's own opinions are missing. • Paper is what is expected from an adept college junior. • Writing is clear and grammatically correct. • Paper has few, if any, punctuation or spelling errors.
C	**D**
Two of the following occur: • Paper has no quotes from reading(s). • Sources fall short (one or both). • Missing discussion of how the research helps deepen understanding of the work. • Student's own opinions are missing.	• Plot summary, no matter how elegantly written, will not receive a grade higher than a "D." • Some conspicuous flaw usually earns an essay a "D." • Paper contains only minimal textual support. • Paper shows poor or inadequate use of evidence.

Organization (20 points)	
A	**B**
• Assertions, at each turn, are clearly articulated. • Words carry precise meaning, and don't obscure it; sentences use only the words their ideas require, not any more. • Student's critical position vis-à-vis the topic, the major issues, and the author's positions are clearly identified. • Paragraphs have distinct though related roles in the essay's cohesion as a whole, each holding one thoroughly asserted idea (not two competing ideas, not one idea half-asserted).	• Paper is very good. The writing is clearly, thoughtfully, and effectively executed. • What sometimes prevents an "A" is a lack of one of the following: ◇ Originality ◇ Thorough thinking ◇ Careful proofreading
C	**D**
• If two of the following virtues are absent and the other areas of the paper are strong, the essay will usually earn a "C": ◇ Originality ◇ Thorough thinking ◇ Careful proofreading	• Paper is weak, behind the curve, less than what is expected from an able college junior. • Paper has problems with: ◇ Organization ◇ Careless writing ◇ Skimpiness

Grammar (10 points)	
A	**B**
Sentences are without grammatical, spelling, or typographical errors that exacting proofreading would catch.	Grammar, spelling, and punctuation errors may exist, but not at severe levels.
C	**D**
Obvious grammar, spelling, and punctuation errors exist that distract the reader from the content.	• Problems with sentence clarity • Paper is in dire need of proofreading.

Reference

- For FSU's grading system, see the Florida State University General Bulletin

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V. Course Evaluation and Revision

Chapter 14 - Improving Your Teaching with Feedback

There are several ways to get feedback about your teaching: student feedback, self-evaluation, peer observation, viewing a videotape of your teaching, consultation with a faculty colleague, or a consultant from the Office of Distance Learning. The more information you gather about your teaching the more you can improve the quality of the teaching and learning experience for your students.

- **Types of Evaluation**
- **Student Feedback: What It Means, How to Use It**
- **Teaching Assessment by Students (TABS)**
- **Other Types of Student Feedback**
- **Self-Reflection**
- **Peer Review**
- **Videotaping and Consultation**
- **Resources on Feedback**

Types of Evaluation

Formative and Summative Evaluations

Evaluation has different purposes. It can be used to improve, rate, or rank a process or product. When used to improve the process, the evaluation is formative, because it is helping to shape the development of the process. When used to rank the quality and effectiveness of a course, the evaluation is summative. Obviously, both types have their place in the improvement of instruction.

- The **SPOT** (Student Perception of Teaching) course evaluation form used at FSU has information detailed enough to help you make course revisions for the next time you teach the class (formative). SPOT also has section D, SUSSAI (State University System Student Assessment Of Instruction), which provides summative information for making judgments about the quality of your instruction.
- The Office of Distance Learning (ODL) offers an instrument known as **TABS** (Teaching Assessment by Students), which is distributed to students approximately one-fourth to one-third of the way into a course. This timing provides you with information that enables you to make changes during the current term, if you wish. The TABS instrument, used together with consultation from ODL, has proven to be effective in improving student

perceptions of instruction and teaching.

For detailed information on both the SPOT and the TABS forms, go to **SPOT** (p. 3) or **TABS** (p. 6).

> **Suggestion** from a former student - "When we fill out end-of-semester evaluations on teachers and courses, it doesn't do us much good. Our class is over. If we could give feedback when it might do some good – during the semester – that would be better."

Student Feedback: What It Means, How to Use It

How valid and reliable is student feedback? Most instructors, at one time or another, have asked:

- Are students good judges of effective teaching?
- Over time do students tend to remain consistent in their judgments of effective teaching?
- Do students give the highest ratings to those instructors from whom they learned the most or to those instructors who are popular?
- What is the agreement between student evaluations and other qualified judges of teaching effectiveness?

Research for the past 15 years on student perceptions of teaching in higher education courses shows that students consistently select eight factors that are important to them in rating teaching effectiveness. Students tend to remain consistent in their judgments of instructors not only from term to term, but also from year to year. Student ratings of teaching effectiveness are strongly correlated with their ratings of how much they learned in a course but only moderately correlated with how much they say they liked the instructor. Finally, student evaluations correlate highly with ratings given by faculty peers and teaching consultants. For more information, see Kulik (2001).

Effective Teaching Factors

The eight factors of effective teaching are that the instructor:

- **Demonstrates knowledge of the subject matter.**
  - ◇ Provides relevant subject matter.
  - ◇ Answers questions on the subject matter.
  - ◇ Directs students to appropriate resources for further information.
- **Shows enthusiasm for the subject.**
  - ◇ Expresses overt interest.
  - ◇ Articulates the importance of the subject matter.
  - ◇ Is well prepared for class (clear syllabus and schedule, organized in class).
  - ◇ Syllabus is clearly written and formatted and has a positive tone.
  - ◇ The schedule for topics, assignments, and tests is clearly presented and changes during the term

are minimal.

- ◊ Appropriate materials are presented or made available for each topic/class meeting.
- ◊ Activities (within and outside of class) are well organized.

- **Explains information clearly.**
  - ◊ Presentations are well organized.
  - ◊ Language of presentations and explanations is appropriate to the topics and to student levels of knowledge.
  - ◊ A variety of examples are provided.
  - ◊ Visuals or other appropriate aids are presented.
- **Encourages discussion/class interaction.**
  - ◊ In class, stimulates student thinking and encourages responses.
  - ◊ Encourages student questions and answers.
  - ◊ Invites students to share information and give opinions.
- **Stimulates interest in the subject.**
  - ◊ Encourages higher level thinking skills (beyond just memorization).
  - ◊ Helps students see relevance in topics for their own lives or goals.
  - ◊ Provides opportunities for students to gain confidence that they can achieve in this subject area.
- **Is readily available to students.**
  - ◊ Provides opportunities for students to meet individually or to ask questions (office hours, e-mail, online discussion boards, etc.).
- **Shows concern for students.**
  - ◊ Provides additional help when asked.
  - ◊ Provides opportunities for additional help when students seem to need it, even if they have not asked.
  - ◊ Responds quickly to student requests for help.

How are courses evaluated at FSU?

SPOT (Student Perception of Teaching) is used to evaluate courses at FSU. Adopted by the Faculty Senate in March 2003, SPOT replaces both the SUSSAI form (which has been incorporated into SPOT as Section D) and the SIRS form.

- **Section A:** General information that will be used to describe the student population evaluating the course.
- **Section B:** Details about the course and the instructor's performance.
- **Section C:** Overall evaluation of the course and instructor.
- **Section D:** SUSSAI (State University System Student Assessment of Instruction): All SUS schools are required by the Florida Legislature to have students use this common tool for assessment of classroom instruction.

- **Section E:** Space for responses to questions that a department may wish to add for evaluation of its courses.
- **Section F:** Space for responses to questions that an instructor may wish to add.
- **Section G**: Students' written comments on what was best about the course and instructor and what should be improved.

University Policy

Campus-based courses - Instructors (faculty, adjuncts, and graduate assistants) who teach undergraduate courses with ten or more students in fall and spring terms, or graduate courses with five or more students in fall and spring terms, must administer course evaluations. The instrument used for student assessment of courses is the SPOT form.

Online courses - University policy does not require fully online courses be evaluated, but it is highly recommended and may be required by schools, colleges, or departments. These courses are evaluated using eSUSSAI (rather than SPOT).

Complete information on requesting, administering, and receiving evaluation results is available for both on-campus and online courses at Assessment and Testing, Offic of Distance Learning.

Course Evaluation: Results and Reporting

Course evaluation results for each course and instructor are compiled into a report, which indicates for each question:

- The number and percentage of student responses falling into each evaluation category.
- The median and the interquartile range of the responses.

Instructor Reports: Access and Delivery

- **Instructors** have access to a secure website to view and print their course evaluation reports. The original forms with the handwritten comments are returned to instructors after scanning. (Paper reports are no longer used.)
- **Department chairs** receive a printed copy of each instructor's report. Additionally, department chairs have online access to instructors' reports.
- **Deans** have online access to reports on instructors within their college or school.
- **President and Provost** have online access to all instructors' reports.

University-wide access

University-wide summary reports by term are available online to everyone, including the general public. These reports provide an overall picture of how students rated all instructors and courses at FSU for a selected term.

College, school, and department access

Summary reports by term for each college, school, and individual departments are available to the President and Provost online. Deans and department chairs may access the summary reports for their respective colleges and schools. Deans can also access the summary reports for all departments within their respective colleges and schools. Department chairs and instructors may access the summary reports for their own departments. Access reports from the **ODL website.**

Since fall 2003 all SUSSAI results can be viewed online at the Assessment and Testing, Office of Distance Learning by searching for instructor, course, or department. A CD-ROM containing SUSSAI reports is available at Strozier Library. Additional copies are also sent to the United Faculty of Florida, Student Government Association, Student Disability Resource Center, and FSU's Panama City Campus. For SUSSAI prior to Fall 2003, print format copies are available at these same locations.

How do you interpret course evaluation results?

Reading your report

- For items marked in rating categories of strongly agree, agree, excellent, very good, or good, take note of what is working and keep doing it.
- For items marked as disagree, strongly disagree, fair, or poor, take note of problems in these areas. Look at Section G on the back of the evaluation form to see what students have written in the open response section. This information often helps to understand the ratings in the closed response sections of B, C, and D.

Considering the context

It is important to consider your results in the context of teaching evaluation results for the university as a whole. These results can be found for any term at Assessment and Testing, Office of Distance Learning.

Ask yourself:

- How do my responses on each item compare to the overall University-wide statistics for each item?
- How do my responses on each item compare to other courses taught at the same level (1000, 2000, etc.)?
- How does my teaching affect student learning and attitude, both positively and negatively?
- In which areas should I consider making changes?
- What should I continue to use or to do?
- What specific changes should I make?
    - ◇ Topics
    - ◇ Syllabus
    - ◇ Schedule
    - ◇ Readings and other materials

- ◊ Activities (in and out of class)
- ◊ Assignments/Tests
- ◊ Teaching delivery methods and/or style
- ◊ Course procedures/policies
- ◊ Other areas

The results of the end-of-term questionnaires arrive too late to make changes that term, and the questionnaires usually do not encourage students to give the specific comments an instructor might need either to identify how well students have understood the material or to spot weaknesses in classroom presentation, organization, pacing, assessment, and workload. A much more effective feedback activity is one that takes place during the term or even several times during the term, such as the TABS instrument.

Teaching Assessment by Students (TABS)

TABS is designed to be given to students during the semester (preferably mid-term) to collect information you can use to make timely improvements to your course. The TABS instrument, developed and administered by the Office of Distance Learning (ODL) , includes Likert-style questions (strongly agree, agree, etc.); the option for instructor-developed questions; and standard, as well as instructor-developed, open-ended response questions. All assessment records, results, and recommendations related to TABS
are confidential. In addition, TABS is used for formative evaluation to help instructors improve or enhance their teaching skills. Therefore, the services of ODL are **not** for summative evaluations for personnel decisions. Contact ODL at **644-4535**.

TABS also can be administered through your course website. See Modify Your Teaching Approach for details.

How does TABS relate to the eight factors of effective teaching?

TABS Questions	Effective Teaching Factors
1-4, 8-15, 17-21, 23-25	Presentation/Facilitation
6-7	Subject matter
5, 15-16, 22, 26-27	Student
28	Student learning in course

How to Analyze the TABS Report

Section I - Note those items that have means above 2.5, especially items receiving ratings of 3's and 4's (3 - disagree, 4 - strongly disagree).

Section II – (Supplemental Items) You may have added items to gather information about particular elements of the course. Interpret numbers according to your own scale or look for similarities in comments.

Section III – (Free Response Section) Especially note what students say you do best. You can expand on these strengths. Get student suggestions about course improvements and group them in related areas.

Section IV - If you have added any open-ended questions, use the methods discussed above.

Other Types of Student Feedback

Instructor-Written Student Questionnaires

Often instructors create their own questionnaires, which work fine if the questionnaires are kept short and focus on a particular technique they are trying out in a class. Be certain that the student responses are anonymous and that students are not graded for turning in an evaluation.

Whatever form of feedback you choose to receive from your students, it is useful to get someone else to help you assess the comments and discuss different possibilities of responding to student suggestions. It is also good to talk to the class as a whole about the comments – some that you intend to address, and perhaps reasons others that cannot be addressed.

Written Feedback from Students

- **Use a Minute Paper** – A less formal way to get written feedback from your students is to have them write down what they like about the class, what they do not like, and suggestions for improvement. This method can be used two or three times during the semester and also can be used to evaluate a particular class session.
- **Use E-Mail** - Cross and Angelo (1988) recommend instructors solicit comments and suggestions for improvement, backed up by examples, using e-mail from students. This tool would certainly be useful for distance learning classes.
- **Use a Survey** - Your course website (in Blackboard) has a survey tool that will allow you to enter your own questions and then provide students the opportunity to respond anonymously to your questions. This tool is useful not only for distance learning classes but also for campus-based courses.

Conduct a Discussion with Students

Get feedback through a discussion in which students are encouraged to speak openly about the class and the instructor. The topics should be the strengths of your teaching and possible areas for improvement. You can facilitate this discussion, or if you prefer, you may be able to get a colleague to help you with this.

The advantages of this type of forum are that students tend to give detailed information and that one student's remarks often trigger comments from others, leading to issues that might not have been mentioned in less interactive methods. After a consultant-conducted forum, the consultant meets with the instructor to share students' comments and helps interpret them. This method often can give you more useful feedback and options than with written feedback.

Self-Reflection

Keeping a **teaching journal** can be a useful tool to help you reflect on your teaching and assist you as you work to develop your own personal teaching style. Here are some ways you might use such a journal:

- **As you are planning your instruction, write down the learning objectives** of a class session and how you plan to reach those objectives. If you articulate what you want students to be able to do after a particular class period, you will design more effective instruction.
- **Immediately after a class session, reflect on whether you reached the objectives,** what worked, what did not work as well as you would have liked, and alternative strategies you might try another time. Also, write down anything you learned, e.g., observations about a particular student, a combination of students in small groups that worked well, or something you learned about yourself as an instructor.
- **Write down ideas gained by talking to colleagues, consultants, or from attending workshops.** Relating these ideas to your own teaching can assist you in becoming a more effective instructor.

Peer Review

Having another instructor sit in on a class period can be a rich source of information. As an observer, this person can often help you understand the dynamics of your classroom. Many teachers find it beneficial to pair up with another teacher and sit in on each other's classes, paving the way for discussion about teaching in your discipline that can be beneficial to both instructors.

Videotaping and Consultation

One of the most powerful and, therefore, helpful forms of feedback on your teaching can be the viewing of a videotape of one of your class sessions. The videotape will give you information on your teaching that is unavailable by any other means; it will help you see yourself as others see you.

Viewing the tape with a consultant can be even more useful. A consultant can help you see the whole picture, assist you in focusing on your behaviors that facilitate student learning, and stimulate a discussion about alternative ways of approaching aspects of your teaching that you would like to change. Consultants at ODL are available to videotape your classroom and consult with you as you view your tape. These sessions are confidential and, if you would like, the videotape can be erased.

Resources on Feedback

Books/Articles

- Braskamp, L. A., Brandenburg, D. C., & Ory, J. C. (1984). *Evaluating teaching effectiveness: A practical guide.* Newbury Park, CA: Sage Publications.
- Cohen, P. A. (1980). Effectiveness of student feedback for improving college instruction. *Research in Higher Education,* 13, 321-341. [Cited in J. Kulik (2001). New Directions for Institutional Research #109, Jossey-Bass.]
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- Kulik, J.A. *Student ratings: Validity, utility, and controversy*. The student ratings debate: Are they valid? How can we best use them?; New directions for institutional research, no. 109, eds. M. Theall, P.C. Abrami, and L. A. Mets. San Francisco: Jossey-Bass, 2001.
- McKeachie, W. J. (2006). *Teaching tips: Strategies, research, and theory for college and university teachers* (12th ed.). Boston: Houghton Mifflin.
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- Weimer, M., Parrot, J. L., & Kerns, M. M. (2002). *How am I teaching? Forms and activities for acquiring instructional input*. Madison, WI: Atwood Publishing.

VI. Campus and Community Resources

Chapter 15 - Support and Resources

The resources available at FSU for supporting instructors and their students are many and varied. Here, we list programs and services that can help you with your research and teaching responsibilities, as well as those that support students.

- **Research Services**
- **Student Support Services**
- **Teaching Support Services**
- **University Policies**

Research Services

Campus Libraries

- **Robert Manning Strozier Library** is the home of the Scholars Commons, located on the lower level of Library. The Scholars Commons offers resources to facilitate study and research by faculty and graduate students. The Scholars Commons hosts programs including book discussion groups, guest lectures, faculty symposia and graduate research fairs. The librarians provide expert research and reference services, and consult with faculty on collection development. A large reading room is reserved for graduate students and faculty, and smaller rooms are available for conferences, group work, and events like dissertation defenses and graduate lectures. A computer lab provides general resources and those specific to graduate students' needs. The Scholars Commons is also host of a myriad of material retrieval services; interlibrary loan, uBorrow, and other borrowing programs bring scholarly materials to you from around the globe. Statistics consulting is also provided.

  Strozier Library is also the home of **The Special Collections Department** which holds rare manuscripts and books and the University Archives.

- **College of Law Library** makes computer searches available through several online and CD-ROM databases. Staff provide legal reference assistance. A completed borrower's form enables anyone to check out materials.
- **Claude Pepper Library** contains the personal and professional papers and mementos of U.S. Representative Pepper, who was known widely as the champion of the aged.
- **Paul Dirac Science Library** contains scientific and technical books and periodicals. Public access terminals and microcomputers connected to the University's Computer Center are available for student use.
- **Population Center Library** houses materials related to the study of population, including from the U.S. Census and the United Nations; materials related to vital statistics, migration, and health; as well as a special col-

lection on the populations of the State of Florida and the Soviet Union.

- **Warren D. Allen Music Library** has definitive editions of composers' works, historical sets, and a wide selection of books, scores, journals, and sound recordings. Various formats of recordings are available for checkout, and stations are available for library listening.

Community Libraries

- **Leon Country Public Library** has over 200,000 volumes, lends 16 and 8 millimeter films, CDs, DVDs, audio and video cassettes, educational kits and records, as well as audio-visual and video production equipment. For the blind, the library provides data, has sign language classes, and classes for adults in basic education. The library is a regional center for providing information on grants.
- **State Library and Archives of Florida** serve as repositories for all State historical materials and archives.
- **Florida A&M University Libraries** house an outstanding Black Literature collection. FSU students may check out materials with a valid student ID. Using LUIS, you may find materials that are unavailable at the FSU libraries.
- **Supreme Court of Florida Library** is used as a research facility. Books cannot be checked out. The library holdings include published reports of court decisions, acts of legislative assemblies, and official statutes.

Student Support Services

Academic Support

- **FSU Honors Program** provides the University's academically gifted students a greater opportunity to interact with each other and with some of FSU's outstanding faculty members. Students who join the program have the opportunity to enroll in special courses, and participate in extracurricular activities throughout the year.
- **Mathematics Help Center** - provides tutorial assistance for the following courses: MAT 0024, MAT 1033, MAC 1105, MAC 1114, MGF 1106, MGF 1107, MAC 1140, MAC 2233, and MAC 2311. Limited help is available for MAD 2104, MAC 2312, and MAC 2313.
- **Center for Academic Retention and Enhancement** (CARE) provides preparation, orientation and academic support programming for students who are among the first in their family to attend college, and for those who otherwise may face unique challenges in college because of economic, cultural or educational circumstances.
- **Reading/Writing Center** provides individualized instruction in reading and writing to undergraduates and graduate students at all levels. Students may register for 1-3 elective credits (ENC 1905, REA 1905, and ENG 5998). Registration ensures scheduled appointments with a tutor over a full semester.

- **The Division of Undergraduate Studies** supports a number of student services including,
    - ◊ The **Office of Retention** assists all students in reaching their academic goals and in engaging fully with the academic culture of the campus. Services include helping students explore various majors, discussing retention concerns, conducting research related to student retention, and working with populations having special academic interests.
- **Tutors** may be available in various departments. Check with the department secretary or advising office.
- **Undergraduate Academic Advising Center** helps "undecided" freshmen and sophomores in selecting liberal studies courses. Advisors assist students while in the process of deciding on a major.
- **Office of Undergraduate Studies** administers the academic and advisement assignment programs for lower division students classified as freshmen and sophomores, with the exception of those accepted into the School of Music and the Bachelor of Fine Arts programs in Theater and Dance.

Counseling Services

- **University Counseling Center** provides counseling and psychotherapy to help students overcome personal and interpersonal difficulties. Students who have paid the health fee are eligible for services.
- **Psychology Clinic** provides confidential psychological services, including testing and long-term counseling to adults and children by appointment only.
- **Center for Couple and Family Therapy** provides premarital, marital, trauma, grief, and family separation and divorce therapy. Services are available to students and to the community at large, by appointment. Charges are assessed according to the client's annual income.

Safety

- **SAFE Connection** transports students for free. Students on campus are served through an escort service, and students under the influence of alcohol are driven from and to selected off-campus areas.
- **University Police** maximize the safety and well being of the FSU community as well as visitors to our campus. **Phone - 644-1234**

Students with Disabilities

- **Student Disability Resource Center** (SDRC) advocates for both physically and learning disabled students. At the earliest convenient date, students are expected to discuss with their instructors their particular needs as they relate to their disability and provide the instructor with a letter of documentation from SDRC. The most frequently requested services are: note takers, alternate exam testing, and permission to audiotape class lectures.
- **Library Services - Assistive Technology Lab** on the first floor of Strozier Library. See the following URL for more details: http://www.lib.fsu.edu/accessibility/index.html
- **Florida Blind Services** offers assistance to blind or visually impaired students, including eye and general medical services, financial assistance, and aid in finding and paying readers to read books, taking class notes, and read exams. Services also include career and guidance counseling and job placement services.

Student Support Groups and Offices

- **Center for Intensive English Studies** (CIES) teaches English to international citizens from all over the world. CIES teachers are experts in teaching English as a second language. So that the teachers can work personally with students, only 50 students are admitted each semester.
- **International Center** provides immigration and support services to international students, scholars, faculty and staff. The Center also offers programs that promote cultural awareness and understanding.
- **Office of Multicultural Affairs** (OMA) facilitates the education of university members through programs and services that help them become aware of, understand, and appreciate the various ethnicities and cultures on campus. OMA also offers culturally-based education and social programs designed to increase awareness of cultural similarities and differences.
- **Student Government Association** sponsors numerous agencies for various FSU student populations. Instructors should note that many of these organizations not only support students, but can also serve as resources for instruction.
- **Veteran Affairs** (part of the Registrar's office) acts as a liaison with the Regional Processing Office in Atlanta, GA. It assists veterans, or the dependents of veterans, with the application and certification process.
- **Victim Advocate Program** provides advocacy for victims of crime. An advocate is on call 24 hours a day to respond to FSU students who have been victimized or any other person who is victimized on campus. Services include emotional support, instructor notification, referrals, and educational programming for the campus community.
- **Women's Educational and Cultural Center** works to develop a greater awareness in the FSU community of the nature of women's problems and their relationship to the economic, social, and political nature of our society.

Teaching Support Services

Assessment and Testing, Office of Distance Learning

- Provides mark-sense scanning for exams and surveys, test and item analysis, and computer-based and internet-based national and state tests, and proctored-testing for distance learning students.

Computer and Technology Support

- **University Computing Services** (formerly ACNS) is responsible for computer accounts, e-mail, course mailing lists, public computer labs, and Technology Enhanced Classrooms.
    - ◊ **Technology Enhanced Classrooms** (TEC) works toward connecting all of FSU's general-purpose classrooms to the campus network and equipping them with multimedia capabilities (e.g., a computer, LCD projector, VCR). Audio-Visual equipment is available to course instructors and staff who require items to help facilitate teaching classes.
- **User Services** offers computer software and hardware support to faculty, students, and staff.
    - ◊ **Help Desk** personnel assist the University community in setting up Internet connections, configuring and using Internet applications, and answering questions about computing services available at FSU.

Copy Services

- **The UPS Store** (at Oglesby Union) provides high quality large scale printing, course packs development assistance, photocopying, mailing services, and more.

Course Materials

- **Texts and Required Classroom Items** - To ensure that required and supplemental textbooks are available to students by the first day of classes, ordering should be done as soon as possible. Ask your departmental staff for the Order Forms, which should include: author, title, publisher, publication date, and ISBN number for the textbook, as well as the course and section numbers. The Forms are then forwarded to either the University Bookstore or Bill's Bookstore.
    - ◊ **FSU Bookstore**
      Phone - 644-2072
      Location – 1st Floor of Parking Garage
      (across from Union)
    - ◊ **Bill's Bookstore**
      Phone - 561-1495
      Location - near the Stone Bldg at
      1411 W. Tennessee St. in the community. See "Copy Services" above.

Distance (Online) Learning

- **Office of Distance Learning** offers an array of products - course websites; digital media and streaming technologies. Services range from faculty consultation, student and faculty web-based tutorials, and comprehensive faculty training workshops, which cover course development, maintenance, and use of the Blackboard online learning environment.

Teaching Assistant (TA) Programs

- **Departmental TA Programs** - Many individual departments have programs to assist graduate TAs improve their instructional skills and knowledge of University regulations regarding teaching. Contact your department head or TA supervisor to see if such a program exists.
- **Program for Instructional Excellence** (PIE) - Serves as a teaching resource for graduate students who are currently teaching assistants or anticipate teaching in the future. PIE offers conferences, workshops, and consultation services for the development of instructional planning, teaching, and technology skills. You can learn more about PIE at pie.fsu.edu
- **Preparing Future Faculty** (PFF) Program - This program helps graduate students prepare for academic careers in higher education through faculty mentoring, seminars, departmental programs, and observations. The PFF program's website can be found at http://gradschool.fsu.edu/Professional-Development/Preparing-Future-Faculty-PFF

University Policies

University policies can be found in the following online publications:

- **Faculty Handbook**
- **Florida State University General Bulletin**
- **Florida State University Graduate Bulletin** is a guide to all graduate policies and programs, and it describes curricula, requirements, and content of graduate courses.
- **FSU Student Rights and Responsibilities** is a guide to student services, rights and responsibilities, and policies regarding student life.
- **FSU Online Policies and Procedures**
- **Information Technology Services**
- **Registration Guides**

If you have questions, or need advice on any policy, consult your Department Chair.

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