Effective Grading:
A Tool for Learning and Assessment

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A Review by David Adams

Grading is a powerful tool faculty use to communicate with their students, colleagues, and institutions, as well as external entities.   The authors, through their personal experiences in the classroom and from listening to faculty from myriad institutions at workshops around the country, have found that teachers have "spent nearly every day of [their] teaching lives wrestling with the problems, the power, and the paradoxes of the grading system" (xv).   *"Effective Grading . . . presents suggestions for making classroom grading more fair, more time-efficient, and more conducive to learning" (xvi). In addition, the authors provide a number of means and examples for using grading as a way for faculty, departments, and institutions to assess learning outcomes – a process required by regional accreditation agencies and many state legislatures. Walvood and Anderson admit that their assessment model, or system, has tradeoffs. Essentially, the system "requires wide participation from faculty, and it requires faculty time to reevaluate their classroom practices, improve them as needed, and make them visible in new ways" (154). The benefit the authors purport is more faculty control over outcomes assessment in their own classroom by using the grading process, and the assessment conducted through grading can be integrated easily with assessment plans that already exist in departments and institutions. It is the authors' hope that faculty will be able to maintain maximum control over curricular content; "over the teaching, learning, and grading process in classrooms; and over the tests, assignment, criteria, and standards by which faculty assess student learning" (154). Through the use of case studies and examples, Woolvard and Anderson provide new ways to think about and conduct grading and the many ways this information can be used to assess learning outcomes.

The authors acknowledge that many accrediting agencies warn that "you can't use grades for assessment" and there are many problems that attend the grading system. "But the grading process, when well employed by skillful teachers, can yield rich information about student learning" (xvi-xvii). To make grading useful for departmental assessment:

> Grading must be understood as a process that identifi[es] the most valuable kinds of learning in a course, construct[s] exams and assignments that will test that learning, set[s] standards and criteria, guide[s] students' learning, and implement[s] changes in teaching that are based on information from the grading process. (xvii)

To this end Walvoord and Anderson organized their book into two sections: The first deals with grading in the classroom and the second addresses how grading can serve broader assessment purposes. Part One helps faculty understand grading processes and offers techniques and advice to make it more beneficial to themselves, their students, their department, their institution, and ultimately the public. Part Two builds on the knowledge of these processes and demonstrates how these techniques can be

used easily for outcomes assessment. A case study and appendices are provided to help faculty and administrators better understand how grading can be used as a tool for assessment.

Grading is the "*process* by which a teacher assesses student learning through classroom tests and assignments, the *context* in which good teachers establish that process, and the *dialogue* that surrounds grades and defines their meaning to various audiences" (1). Grading serves four roles: 1) it *Evaluates* the quality of a student's work; 2) it *Communicates* with the student, as well as employers, graduate schools, and others; 3) it *Motivates* how the students study, what they focus on, and their involvement in the course; and 4) it *Organizes* to mark transitions, bring closure, and focus effort for both students and teachers (2).   This is the reason grading is so important for the assessment process – principally in the minds of faculty. The authors, along with many institutions and accreditation agencies, however, believe that grades in themselves, particularly final course grades, may be "isolated artifacts" which are neither useful nor appropriate for institutional assessment needs. It is therefore not the actual grade that is useful for assessment but the grading processes (4). The authors assert that "bridges exit that can help [faculty and administrators] link classroom grading processes to departmental and general education assessment" (5). The Classroom Assessment—Classroom Research model proposed by K. P. Cross and others is "any systematic inquiry designed and conducted for the purpose of increasing insight and understanding of the relationships between teaching and learning." [1] This model can help the teacher use the grading process as a systematic collection, analysis, and use of data about student learning to assess and improve the course.

The challenge for effective assessment is to manage the grading process. To do this "faculty must abandon three common false hopes that belie the context and the complexity of the grading process: 1) The false hope of total objectivity in grading; 2) The false hope of total agreement about grading; and 3) The false hope of a one-dimensional student motivation for learning" (10). To do this the authors provide twelve principles for managing the grading process.

1. Appreciate the Complexity of Grading; Use It as a Tool for Learning
   - Grading is a socially constructed and context-dependent process, and "no grade or grading system is immutably right by some eternal standard" (10).
   - The role of grades can change over time and they have different meaning for different groups of people.

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[1]Cross, K. P. "Classroom Research: Helping Professors Learn More about Teaching and Learning." In P. Seldin (ed.), *How Administrators Can Improve Teaching: Moving from Talk to Action in Higher Education.* San Francisco: Jossey-Bass, 1990.

- There are four major roles of the grading process – evaluation, communication, motivation and organization.
2. Substitute Judgment for Objectivity
   - There is no absolutely objective evaluation.
   - The teacher must develop and render an informed and professional judgment within the context of the institution, students, and their future employees.
3. Distribute Time Effectively
   - "Spend enough time to make a thoughtful, professional judgment, with reasonable consistency, then move on" (11).
   - Repeatedly reviewing work does not lead to perfect objectivity.
4. Be Open to Change
   - "Your grades and grading system will be interpreted and used within the system that *is*—not the one you wish for or the one you experienced as a student" (12).
   - The social meaning of grading changes over time.
   - Be open to change but careful of grade inflation.
5. Listen and Observe
   - Students attach a meaning to grades that will most affect learning.
   - Be clear with the students about these meanings.
   - "In establishing grades . . . you are invoking a set of cultural beliefs and values that will shape the learning potential of your grading process. The better you understand the culture, the better you can manage the grading process" (12).
6. Communicate and Collaborate with Students
   - "Explain the criteria and standards you hold for their work and seek their active engagement in the learning process" (13).
   - Collaborate with the students to work toward common goals.
7. Integrate Grading with Other Key Processes
   - Make grading integral to everything else you do.
8. Seize the Teachable Moment
   - Informal feedback and discussion about grades is good for students.
   - Emotional moments can be valuable teaching moments in which lessons and values can be imparted to your student.
9. Make Student Learning the Primary Goal
   - Values can clash between internal and external forces. When they do teachers need to remember "to hold learning, rather than reporting to outsiders, as the most important goal of grading" (14).
   - More student involvement leads to more learning and personal development.
   - "Their involvement in learning is in part determined by their perception of faculty members' interest and friendliness toward them, including the fairness and helpfulness of the testing and grading system and the teacher's communication about their work and their grades" (14).
   - Good Practice in Undergraduate Education[2]
     1) Encourages student-faculty contact
     2) Encourages cooperation among students
     3) Encourages active learning

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[2] Chickering, A. W. and Z. F. Gamson. "Seven Principles for Good Practice in Undergraduate Education." *AAHE Bulletin*, 1987, 39(7), 3-7.

     4) Gives prompt feedback
     5) Emphasizes the time the student devotes to the task
     6) Communicates high expectations
     7) Respects diverse talents and ways of learning

10. Be a Teacher First, a Gatekeeper Last
   - Understand the student, believe in them, figure out what they need, and help them learn no matter their background.
   - Provide all students and equal chance to learn.
11. Encourage Learning-Centered Motivation
   - Motivation is a key to learning and grades have the ability to provide this motivation to an extent.
   - Attitudes towards grades, more than the grades themselves, negatively affect student's motivation to learn (16).
12. Emphasize Student Involvement
   - This is the bottom line for learning.

   All of these suggestions provide a focus for faculty attention and energy; they do not, however, eliminate the problems with the grading system. If faculty construct grading systems that are conducive to learning they can create and generate information that can be useful for assessment of learning outcomes. The challenge then is to create and select "assignments and exams that will both teach and test the learning you most care about" (16). This then will motivate students to learn what they need to know to do well. Once the teacher establishes the learning outcomes about which she most cares, then the challenge is to establish criteria and standards for grading, calculate course grades, communicate with students about their grades and the grading process, make grading time-efficient, use the grading process to improve teaching, and ultimately provide a means for valuable assessment of student learning outcomes for the class, department, institution, and external audiences (16).

   Assignments need to be made worth grading. Grading should not be an afterthought; it should shape the entire process from the first moment a course is planned. "The first step in course planning is to make sure that the assignments and tests assess the learning you and your students most want to achieve" (17). The authors provide six suggestions to ensure that your time is well spent and that your grading leads to learning:

1. Consider What You Want Your Students to Learn
   - "Effective grading practices begin when the teacher says to herself, By the end of the course, I want my students to be able to. . . . Concrete verbs such as *define, argue, solve,* and *create* are more helpful for course planning than vague verbs such as *know* or *understand* or passive verbs such as *be exposed to*" (18).[3]

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[3] There are several sources listed at the end of this document which help describe learning goals and objectives.

2. Select Assignments and Tests That Measure What Your Value Most
   - Choose assignments that are likely to elicit from your students the kind of learning you want to measure.
   - Choose assignments that are interesting and challenging to your students.
   - Use peer group collaboration.
3. Construct a Course Outline
   - Start with what you want your students to *learn*, not what you want to *cover* in the class. Then list the major assignments and tests that will both teach and test that learning.
   - Combine tests and assignments in a bare-bones course outline to "see whether your assignments fit your course goals and whether they are manageable in terms of work load" (26).
   - The bare-bones outline should describe student learning goals and where in the course these goals will be assessed by major assignments or exams, then fill in where the material will be taught.
   - There will be other smaller assignments, quizzes, and activities along the way, but concentrate on the bare essentials to see exactly where you can assess the student learning you value most.
4. Check Tests and Assignments for Fit and Feasibility
   - Make sure assignments fit with learning goals and ensure the workload is feasible for yourself and your students. Ensure they are reasonable, strategically placed, and sustainable.
5. Collaborate with Your Students to Set and Achieve Goals
   - "Through discussion, try to reach agreement and clear understanding about the goals of the course and the reasons for your major assignments and tests" (37).
   - Get students to develop their own personal and learning goals for the course and strategies by which they can accomplish those goals.
6. Make Assignment and Test Instructions Clear to Students
   - Develop a careful and thoughtful assignment sheet for students for each major assignment or test.

After these suggestions are adopted and you begin to develop the grading process, the next consideration is how to foster motivation and learning. Here is where you decide how to shape your assignment-centered course – where you fill in the rest of your course outline "to decide how to conduct the course on a daily basis" (43). While you do this, consider how the students can be most actively involved in the learning process through the course. "Motivation is an important key to active learning and student involvement" (44). The authors discuss several different motivation techniques found in literature and suggest that you "may be able to influence students' experiences of learned helplessness, self-efficacy, and attribution" (46). Reinforce the kind of thinking in your classroom that says "I want to learn, I can learn, I can control outcomes, my efforts can pay off, and if I don't do well, I can do better." Once you have established the basis for learning and motivation, the authors provide

two suggestions for consideration as you plan classroom activities and involve students in the process: 1) teach what you are grading and 2) rethink the use of class time.

There is often apprehension to teach to the test, but if the test really tests the central learning goals of the course then faculty should by all means teach to it. Walvoord's acquaintance put it this way: "Teach not to the test but to the criteria by which you will evaluate the test" (47). The key is to remember that you are testing learning goals not regurgitation of facts and figures. Each individual instructor must determine the ways these learning goals will be tested, and Walvoord and Anderson provide examples from an art historian, a biology professor, and a historian who came up with creative ways to teach to the central learning goals and test their students based on those goals (47-52). The challenge then becomes figuring out how to prepare students for the class so that you can effectively teach. The authors suggest that you rethink the use of in-class time.

The goal is to develop a method by which the student's first exposure to the material occurs before the in-class lecture or instruction – to get them to read the material before the class in which it is discussed. After establishing the first exposure part, in-class time can be used to actively analyze and argue concepts based on the assigned reading. "[The authors] call this broadly the *processing* part of learning, where students synthesize, analyze, compare, define, argue, or solve problems based on the materials to which they have been exposed" (53). There are several methods to get students to read materials before class, and the authors suggest students write a short summary of the reading before class. These can be part of a class participation grade or not, but the instructor need not extensively mark the summary with comments – if she wants to provide comments at all. These preparatory writings can be effectively graded in the class by observing the level of student participation in discussion or lab. "The student's preparatory first-exposure work becomes the basis of class. The result is a built-in assessment – the teacher becomes familiar, minute by minute, with what the students are thinking and learning, where they need more help, whether concepts are getting through" (54). The result of this, the authors believe, is an interactive teaching environment rather than lecture-based teaching. This interactive assignment-based model encourages students to be responsible for their first-exposure learning outside of the classroom. Woolvard and Anderson provide several examples of classes where the discussion is highly structured; students are given roles to play and the "teacher guides the class by carefully planned activities with specific goals linked to learning and assessment" (58). And, the authors suggest that you consider these interactive teaching methods as part of your course planning.

After courses are outlined and planned, the next step is establishing clear criteria and standards for grading. "Checklists, key questions, worksheets, peer response sheets, drafting conferences between student and teacher, and whole-class instruction on criteria . . . are all ways to make grading criteria more explicit" (66). The authors introduce a method called Primary Trait Analysis (PTA) which "will bring rigor to a classroom and will allow grading to be used . . . as the basis for departmental, programmatic, or institutional assessment" (67). PTA uses a scoring rubric to assess any student performance or portfolio of student performances – written, oral, clinical, artistic, and so on.

> PTA is assignment-specific; that is the criteria are different for each assignment or test. PTA could be used to establish criteria for an external exam as well as for classroom work. In fact, PTA was developed to score essays on the National Assessment of Educational Progress – a national exam administered periodically over several decades to thousands of U.S. students at several levels. But as [the authors] apply it here, PTA is a way of explicitly stating the teacher's criteria, and it is used in the classroom to make grading criteria very clear and specific (67).

Primary Trait Analysis works well for programmatic, departmental, and institutional assessment because the rubric provides a common format for stating various teachers' criteria and standards. Its explicitness allows these criteria to be understandable to external audiences as well, such as regional accreditation agencies. PTA is valuable for classroom use; it clearly presents criteria and standards to students and helps guide classroom teaching and learning (67).

PTA can be placed along two continua: 1) The continuum from unstated criteria ("It feels like a *B*") to highly explicit criteria (PTA) and 2) the continuum from norm-referenced (grading on a curve) to criterion-referenced scoring (PTA). Therefore, "PTA is both highly explicit and criterion-referenced" (67). When developing a PTA scale it is useful "to work from examples of past student performances, grading checklists, descriptions of criteria, comments on assignments or tests – anything that has helped you in the past to articulate criteria for students' performances" (69). PTA measures specific traits, usually nouns or noun phrases, such as "thesis," "use of color," "experimental design," "title," by developing a two- to five-point scale for each trait, which describes each performance level. Each level of the scale corresponds to a grade. A two-point scale would describe each trait as either pass or fail and, similarly, a five-point scale would correspond to letter grades, with the fifth level representing the highest grade. It is certainly possible to use a scale with three or four levels, too – it just depends on your purposes and the purposes of the material you are grading. The key is to measure each trait with a PTA scale and use the aggregate scoring to grade the assignment, performance, test, and so on. The authors provide several examples in the text to help guide the development of PTA scales, and there are twelve

discipline-specific examples offered in the book's appendix, one of which is provided as an addendum to this document.

The authors provide four steps that will help the teacher develop a PTA scale. "If possible, work from examples from past student performances, grading checklists, descriptions of criteria, comments on assignments or tests – anything that has helped you in the past to articulate criteria for student performances" (69).

1. Choose a test or assignment that tests what you want to evaluate. Make clear your objectives for the assignment.
2. Identify the criteria or "traits" that will count in the evaluation. These are nouns or noun phrases, such as "thesis," "methods and materials," or "control of variables."
3. For each trait construct a two- to five-point scale. These are descriptive statements. For example, "A 'Level 5' thesis is limited enough to treat within the scope of the essay and is clear to the reader; it enters the dialogue of the discipline as reflected in the student's sources, and it does so at a level that shows synthesis and original thought; it neither exactly repeats any of the student's sources nor states the obvious."
4. Try out the scale with a sample of student work or review with colleagues and revise.

To develop traits and scales it may be useful to talk with colleagues – either from your discipline or another – so they accurately describe what you wish to measure. It may be useful for you and a colleague to separately score a sample of your students' work. Any discrepancies that result between you and your colleague can lead to further revision of your PTA scale. "Such a cycle can be repeated as many times as necessary until the scale and the agreement between graders meet your particular needs" (70). This can be especially useful to help teaching assistants grade papers consistently, to reach agreement with colleagues on criteria for common exams, for multiple sections, or for sequenced courses, and to generate data for departmental assessment (72-73).

Primary Trait Analysis is not necessarily the same as grading, though grades can be derived from it. Some grading scales can be less complex than the primary trait scale but based on it, while others can be entirely based on a weighted PTA scale. PTAs can be used for almost any type of assignment or test. The authors provide several examples of how PTAs can be useful for multiple-choice tests, portfolios, lab reports, essays, presentations, and so on. "Almost any type of student performance involving higher-order thinking, creativity, or integration of skills can be examined effectively with PTA" (84). The most emphasized point the authors make about PTA is that it can be used to calculate course grades, it can effectively communicate those grades with your students, it can make grading more

efficient, it can be used to improve classroom instruction, and it can be used for outcomes assessment purposes.

When choosing a grading model decide what best fits your style, values, and goals then adapt it as you judge best. The authors discuss and provide characteristics for three basic grading models: weighted letter grades, accumulated points, and a definitional system. Each has its own particular characteristics, benefits, and drawbacks. Calculating course grades is an "expression of your values and goals, because different models will express different relationships among types of student performance and will have different effects on how your students perceive the reward system in the course." The model you choose reflects what you think is most important and it is a communication to your students about where their effort should be focused (93).

Communicating with students about their grades is important and is "embedded within other verbal and nonverbal communications: your syllabus, explanation of the grading system, explanation of the criteria and standards for the grade, and the entire semester's conversation between you and your students" (105). The authors provide several suggestions for effective communication:

1. Assume Students Want to Learn
   - "Listen carefully, appeal to their highest motivations, and respect them as people who want to learn – perhaps in confused and limited ways, perhaps with mixed motivations…"(106).
   - This undergirds all other suggestions
2. Embed Grading in a Course That Sets High Expectations and Helps Students Meet Them
   - "Grades should emerge as part of the learning process within a well-designed, assignment-centered course in which goals are clear, tests and assignments help students reach those goals, student work is evaluated by clear criteria known ahead of time, teaching is interactive, and students receive ongoing feedback about their work" (106).
3. Use the Syllabus to Show Students How Tests and Assignments Serve Course Goals
4. Inquire, Reinforce, and Remind Students About Course Goals
5. Discuss the Roles of Grades
   - Four Roles
     1) Evaluation
     2) Communication
     3) Motivation
     4) Organization
   - Students also have their own roles which they assign to grades. It is useful to understand these when communicating your goals even though you may resist it.
     1) Reward for effort
     2) Ticket to upward mobility
     3) A purchased item that has been paid for
6. Discuss Fairness

- Talk with students about how to achieve fairness for everyone (including you) in the classroom
7. Explain What Each Grade Represents
    - This helps address the fairness issue as well.
    - Students should have clear understanding before they begin their assignments or tests.
    - Grades should be linked to demonstrated learning.
    - Grading should be done through consistent criteria that are known ahead of time and that are the same for everyone.
8. Speak to the Learner, Not the Error
    - The grade should help the learner move forward.
    - Grading should reflect where the student did well and on the areas that need improvement.
9. Save Your Comments for the Teachable Moment
    - Walvoord has used an individual conference with her students each semester to discuss progress in the course or review of an assignment.
    - Many suggestions are offered on how best to seize this Teachable Moment
10. Communicate Priorities
    - Don't confuse the student with superficial issues when reviewing or grading an assignment. Instead clearly communicate the global matters.
11. Avoid Surprises
    - Have clear criteria and standards.
    - Coach the process.

All of the above suggestions can lead to better communication with your students and also save you time. The authors also discuss how to make grading more time-efficient, which will keep your grading time to a minimum and make sure "that every minute you spend grading pays off handsomely in terms of student learning and useful assessment" (119). To achieve this nine strategies are offered:

1. Separate Commenting from Grading
    - "Grades need not be given to every piece of student work – only if your students need that type of assessment. Comments need not necessarily accompany grades – only if learning results" (120).
2. Do Not Give to All Students What Only Some Need
    - Some students may need an unofficial grade or a comment to understand the quality of their work, while others may not.
3. Use Only As Many Grade Levels As You Need
    - The fewer the levels the faster the work.
4. Frame Comments to Your Students' Use
    - "Only put your time into comments that reach students in a teachable moment."
        - Usually occurs "when there is still something the student can do to improve the grade on a live assignment" unless they can use the comment on a final product to enhance learning and quality of subsequent assignments (123).
    - Global-level comments are much more conducive to student learning than local-level corrections.

- Face-to-face comments can be useful and accomplish more effective communication in the same amount of time it would take to write comments.
- Adjust the extent of comments to enhance learning for both well-edited assignments and other work that need not be well-edited or proofed.

5. Do Not Waste Time on Careless Student Work
   - Figure out the best way to keep this type of work off your desk and teach the student what she needs to learn.
6. Use What the Student Knows
   - Ask what the student knows about her own work. Can this information be valuable when evaluating?
7. Ask Students to Organize Their Work for Your Efficiency
   - Ask for a table of contents, ban paperclips, etc.
   - Provide a checklist so the students may put the different parts of the assignment in order.
8. Delegate the Work
   - Provide the students with peer-response checklist so that they may check each other's work after the instructor makes comments on the initial draft, report, thesis, etc.
9. Use Technology to Save Time and Enhance Results
   - Use the resources available to enhance efficiency.

The authors suggest that if you have adopted these recommendations and strategies, then you have learned a great deal of information about your students' strengths and weaknesses. All of this information can be used to improve your teaching. Two case studies are provided as examples of "teachers who used information stemming from the grading process to analyze students' learning and to improve their teaching" (135). In the first case study, the teacher was able to analyze what students were not achieving by using the PTA scale. Using the evidence provided she was able to diagnose what was going wrong and then figure out how to remedy the situation by using her in-class time in a different manner. The authors assert that "between analyzing students' problems on the one hand and implementing appropriate pedagogical strategies on the other lies a philosophy or model of how learning takes places and a prediction about which kinds of pedagogical strategies will successfully address the problems" (139). Similarly, the second case study reflects a pedagogical strategy that also identifies strengths and weaknesses. In this case, each learning goal is assessed on several tests, homework problems, and exams. A graph of student scores on each of these can identify how and where specific goals are achieved over time. A similar chart can show whole-class weaknesses and strengths. These and similar measures can be used to serve broader assessment purposes.

Good assessment must begin and end in the classroom. Using the grading process as the bases for departmental assessment is based on a two-part theoretical stance. "The first part holds that critical
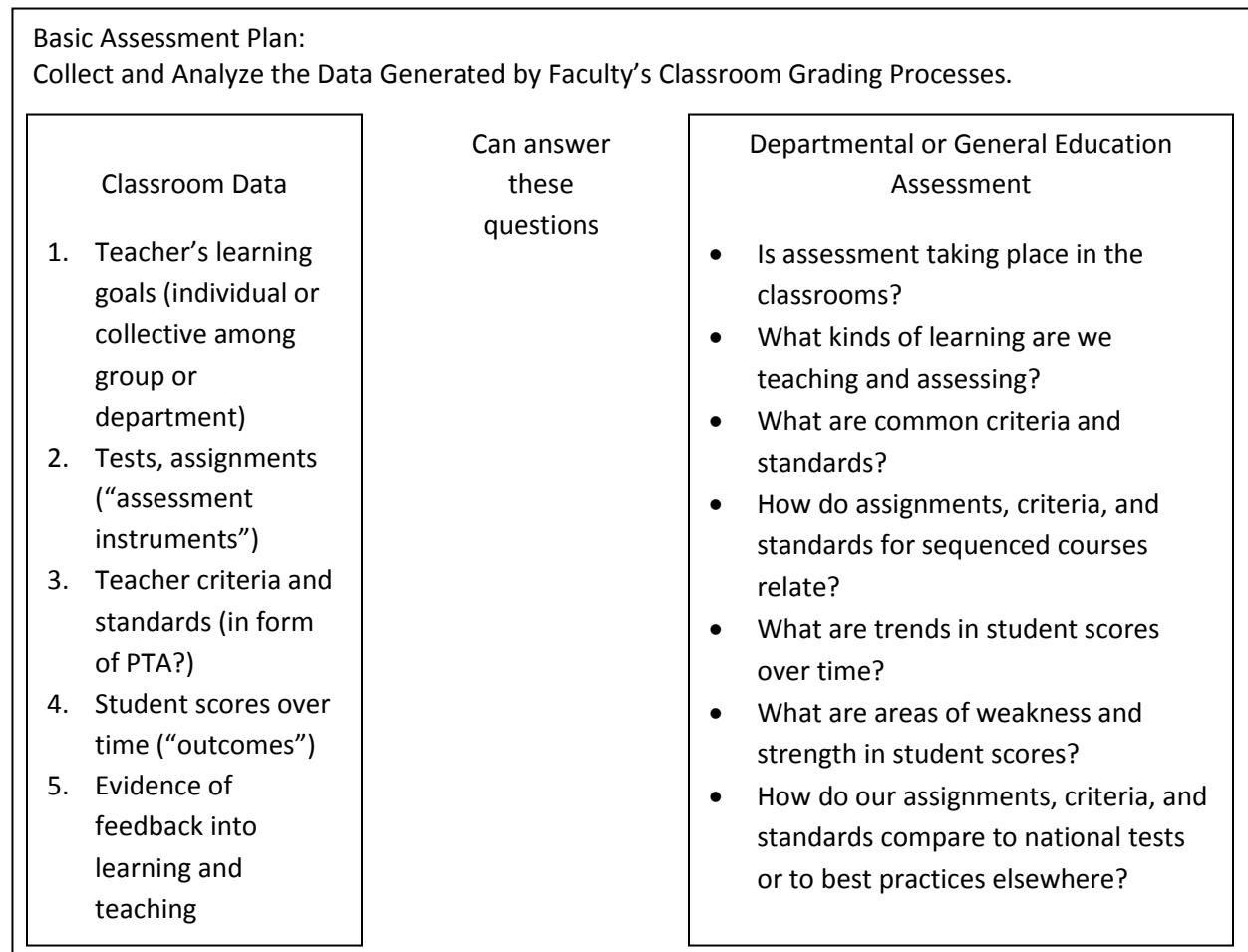
thinking, problem solving, or whatever learning you're trying to measure is *context-specific*" (149). These various things can be taught and assessed in the "context of a particular institution's or department's mission and within a particular teacher's semester-long work with a particular body of knowledge and a particular group of students over time" (149). This stance accords well with accreditation agency guidelines and the "Principles of Good Practice for Assessing Student Learning" (addendum to this document) from the American Association for Higher Education. The second part of the theoretical stance holds that these various things that are trying to be assessed are not new to faculty. "When an assessment system acknowledges what faculty are already doing, it can more easily capture the faculty commitment and buy-in that are valuable to institutions and required by regional accrediting agencies" (150). The authors suggest that this approach as more of a chance to win faculty participation and commitment because it draws upon their wisdom, practice, skills, and knowledge of their discipline to assess student learning.

> Within this two-part theoretical stance, the nature of the assessment task changes in an important way. Instead of having to find externally a definition of the learning you want and a way of assessing it, with the grading process having no relevance, the task is to make systematic, explicit, and public the goals of learning and the assessment of learning that are already happening on campus, often in connection with the grading process. Then, as needed, the task is to improve campus teaching, student learning, and assessment. . . . Classroom grading produces, or could produce, statements of teacher objectives for student learning, course skeletons, tests and assignments, PTA scales or other statements of the standards and criteria for student work, student work with teacher grades and comments, and evidence of teacher change based on this information, such as a revised assignment sheet or syllabus. All of this material can be used as data to answer assessment questions (150).

Other measures are certainly useful for assessment, such as external measures like standardized tests or local measures like focus groups, but here the authors focus on how classroom grading practices can yield good data for answering important assessment questions. The challenge is to protect those who make grading visible to external audiences. This needs to be managed in ways that protect and benefit students, faculty, and institutions.

The authors assert their plan with provide for faculty autonomy, academic freedom, and faculty control of the curriculum and of assessment. With their system, "the criteria and standards, the tests and exams, remain under faculty control, but are made public in new ways" (153). There has been sharing of grades, assignments, learning goals, and tests for some time now – whether for faculty promotion or for the student's advancement in the workplace or in higher education. This sharing and visibility is an extension, then, of what faculty already do but now to new audiences with new purposes.

"The alternative . . . is to let external forces impose external tests graded by external raters and thus to force faculty to teach to those tests" (153). This happens already, as with licensure exams, for example, but most faculty and institutions want to keep "course content, tests, assignments, criteria, and standards largely under the control of their own faculty" (153). The authors believe their method of effective grading for assessment can do just this. Their plan calls for faculty to provide the departmental assessment committee with data that arise from their classroom grading processes, data which can also be used for improvement in their own classrooms. Additionally, the data provide the assessment committee valuable information to answer departmental or general education assessment questions. Furthermore, these findings can be transmitted to the institution for improvement. The figure below portrays the authors' basic assessment plan of how classroom data can be useful for departmental or general education assessment (152).

Basic Assessment Plan:
Collect and Analyze the Data Generated by Faculty's Classroom Grading Processes.

Classroom Data	Can answer these questions	Departmental or General Education Assessment
1. Teacher's learning goals (individual or collective among group or department) 2. Tests, assignments ("assessment instruments") 3. Teacher criteria and standards (in form of PTA?) 4. Student scores over time ("outcomes") 5. Evidence of feedback into learning and teaching		• Is assessment taking place in the classrooms? • What kinds of learning are we teaching and assessing? • What are common criteria and standards? • How do assignments, criteria, and standards for sequenced courses relate? • What are trends in student scores over time? • What are areas of weakness and strength in student scores? • How do our assignments, criteria, and standards compare to national tests or to best practices elsewhere?

Walvoord and Anderson provide several hypothetical examples, of increasing complexity, for departments so that they might use data that emerge from classroom grading to address assessment

goals. For each example the authors address three questions: 1) Who needs to know, and why? 2) Which data are collected from the chosen classrooms? and How does the assessment committee (or other body) analyze data and present findings? The authors insist their examples are not mutually exclusive and that institutions, departments, and assessment committees may want to combine them or to begin with the simple suggestions and work toward the more complex. For this document only the first example is given in limited detail. The other examples are listed with a brief summary. For a better understanding of all the examples, see pages 154 – 167.

Example 1: Assuring That Effective Classroom Assessment is Taking Place
- Who needs to know, and why?
  o The assessment committee, the institution, and the accrediting agency need this information
  o To ensure learning is being assessed, assessment is connected to learning goals, instruments are valid and reliable, criteria and standards are stated in writing, and that student work is assessed against those criteria and standards so that the results are fed back into student learning and into teacher planning.
- Which Data are Collected and Why?
  o Statements of course goals and objectives, major tests and assignments that assess those goals, a PTA scale showing criteria and standards on the major tests and assignments, and evidence of how the teacher feeds this information back into teaching and learning.
- How Does the Assessment Committee (or Other Body) Analyze Data and Present Findings?
  o To determine if classroom assessment is being conducted according to established criteria, the committee asks for a random sample of 20 percent of the courses being taught in a given semester.
  o For each class the following were submitted:
    1. A teacher's written statement of learning objectives for the course
    2. Copies of what the teacher judged to be the two or three most central texts, exams, and assignments that assessed student achievement of those goals
    3. Written statements of the criteria being used to assess students' performances on the tests, exams, and assignments
    4. Evidence (such as teacher comments on student tests and assignments, revised syllabus or holdouts) that assessment results were being fed back into student learning and into the teacher's own practice
  o "The committee offered a workshop (before the semester began) for faculty in the sample to explain the criteria and the data needed, to help faculty prepare the data, and to help faculty implement classroom changes spurred by their own examination of their data against the criteria" (156).
  o The authors suggest that faculty are likely to change their practices just by asking them for certain data as the hypothetical committee did in the example.
  o "If you tell faculty what criteria you are going to use to evaluate their classroom data, as this committee did, then faculty may change their practices to bring them closer to the criteria. If you offer faculty some guidance in preparing their

course objectives, tests, exams, assignments, and standards, and if you teach them PTA scoring, if you do so in a workshop setting where interaction is rich and stimulating, faculty are likely to change their practices" (158).

Example 2: Finding Common Expectations
- The goal is to aggregate the findings of classroom assessment to answer questions about courses as a group.

Example 3: Checking the Sequence of Skills Taught in a Department
- The goal is to identify problems with course sequence by using tests, exams, and assignments and the PTA scales used to score them.

Example 4: What is Required of Graduates?
- This builds on the PTA scale by identifying the level of performance that students must reach if they are to receive a certain grade.

Example 5: Strengths and Weaknesses in Student Performance at a Single Point in Time
- This example measures specific traits identified in the PTA scores in an attempt to track student performance of those traits.

Example 6: Tracking Student Performance Over Time
- This uses PTA scores to track education goals, such as critical thinking, in students over time.

Through all of these examples the authors believe that widespread faculty participation is "both a strength and a limitation" in their assessment model.   They assert that if a small percentage of faculty adopt their model and pilot it, then it may be useful (167-68). Walvoord and Anderson's last chapter provides an example of how a small number of faculty designed an assessment program, built on the authors' model, that eventually gained support and was implemented by the faculty as a whole. Over a period of several years all faculty at this institution began to submit their assignments and PTA scales to assessment committees as suggested by the above examples.

The authors insist their approach to grading-based assessment can be incorporated with other models or that a middle ground can be found between models, but they acknowledge grading-based assessment does have its limitations and trade-offs. Not all institutions are the same and not all use assessment for the same purposes. Walvoord and Anderson believe their system provides institutions a chance to integrate the assessment conducted through grading with other assessment plans already in place, which may increase faculty participation in and acceptance of assessment requirements while positively affecting teaching and learning in classrooms.