Supporting Learning Outcomes
F2F AND ONLINE

MAGNA REPORT
# Table of Contents

Introduction ............................................................................................................................... 3  
Avoiding Information Overload: Remembering Course Goals ....................................................... 4  
Writing Learning Objectives That Help You Teach and Students Learn (Part 1) .............................. 5  
Writing Learning Objectives That Help You Teach and Students Learn (Part 2) .............................. 9  
Motivation: Intrinsic, Extrinsic, or More..................................................................................... 13  
Using Self-Determination Theory to Improve Online Learner Motivation ..................................... 14  
Ways to Achieve Student Engagement ...................................................................................... 17  
A Three-Pronged Approach to Improving Student Engagement, Critical Thinking........................ 19  
Frequent, Low-Stakes Grading: Assessment for Communication, Confidence .............................. 21  
A Grade Forecasting Strategy ................................................................................................... 24  
Discussion Board Audit—A Metacognitive, Wrap-up Assignment ............................................... 26  
Feed-Forward: Constructive Feedback for Future Assignments .................................................. 28  
Does It Matter How We Give Our Students Feedback in a Technology-Mediated Environment?  ... 29  
Reasons Why Students Do or Don’t Participate ......................................................................... 32  
Encouraging Online Learner Participation .................................................................................. 33  
Alternative Assessment Methods for the Online Classroom ....................................................... 35  
Cumulative Finals: There’s Good Reasons to Give Them ............................................................ 37  
Additional Resources ............................................................................................................... 40
Introduction

Effective educators know—supporting the knowledge and skills determined by a course’s learning outcomes is essential for student success, both in the classroom and online.

Learning outcomes can serve as goals, benchmarks, standards for accountability, and guides for course design.

That’s why you need multiple methods to support learning outcomes.

The aim of this report is to provide you real-world, tested approaches to help you improve student learning. Topics include:

- Writing learning objectives
- Assignments
- Grading strategies
- Student motivation
- Student engagement
- Participation
- Feedback strategies
- Assessments

These articles will help you structure and plan activities to maximize student engagement, increase student participation, and ultimately deepen learning.

Discover new techniques grounded in theory and tested in face-to-face and online classrooms to fulfill your most important job requirement—helping students learn.

Learning outcomes are key to your success as a faculty member. Explore a multifaceted approach to using them effectively in the following pages.
Avoiding Information Overload: Remembering Course Goals

By John A. Dern, Temple University, PA

In more than 20 years of teaching, I have learned that too much information frustrates rather than inspires students. Today, however, with a few clicks of the computer mouse, any teacher can retrieve an overabundance of information. What is more, courseware makes distributing this information to students amazingly easy. As a result, teachers risk (unintentionally) giving students much more information than they can reasonably digest, including electronic texts, supplementary texts, and background information. The key to avoiding information overload is remembering course goals.

A few years ago, the program in which I teach revamped its two courses. Consequently, I ended up having to teach a number of texts I had never taught before. As I prepared to teach these new texts, I confronted this question: how much background information do I need to provide for students so that they will have sufficient context to analyze and discuss these works effectively?

My program is interdisciplinary: the courses do not focus on a single author, era, or theme. Rather, the focus is on critical reading skills, and the texts themselves—from disciplines as varied as biology, literature, urban planning, and more—pose disparate critical challenges for readers. Thus, each text essentially requires its own background information—an overview of its author, its historical setting, its relationship to other works, etc. Those of us who teach in this program have nine texts of varying length to cover in each of the two courses, so one can see how a teacher could spend a considerable amount of time supplying background information to the detriment of skills development. Indeed, this is the essential point: the program’s focus is not biology or literature or urban planning but skills development. Having taught the new courses numerous times now, I have come to realize that if a teacher keeps this course goal in mind, he or she can use experience in the classroom to discern how much background information a given text requires in order for students to achieve the intended outcome.

I recently found myself thinking again about background information when my program adopted a new text, Jean-Jacques Rousseau’s *Discourse on Inequality*, and I was asked to pilot the book in a summer session. (I had not taught anything by Rousseau in a dozen or more years.) Once again, the question arose: how much background information would my students need in order to help them analyze and discuss this work effectively? I started by reminding myself of the desired outcome: the goal was not for students to become proficient in Rousseau or *Discourse on Inequality*—or even to use Rousseau as part of a survey of 18th-century literature. Rather, the objective was for my students to become proficient readers, using parts of Rousseau’s text for close reading exercises in pursuit of that goal. I realized that given the course goal, my students would not require the amount of background information on Rousseau that other courses might require.
If my class were focused on Rousseau and his works or even on 18th-century literature, I would need to assign comprehensive supplementary readings, such as the entry on Rousseau found in the *Stanford Encyclopedia of Philosophy* and another companion piece or two. In my critical reading course, however, I only needed to prepare a 20-minute lecture on Rousseau, his works, his relationship to the Enlightenment, and his influence on Romantic thought. Indeed, given my program’s desired outcome, it behooves me to spend as much time as possible on passages from actual course texts such as *Discourse on Inequality*. The key to doing this is to supply just enough background information to help students contextualize the reading.

As accessing information becomes easier and easier, teachers need to practice greater discrimination in terms of the quantity of the supplementary texts and background information supplied to students. Too much information may overwhelm students and detract from the intended outcome.

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This article originally appeared in the newsletter *The Teaching Professor*, 26.8 (2012); 1.

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**Writing Learning Objectives That Help You Teach and Students Learn (Part 1)**

*By Patti Shank, Ph.D., C.P.T.*

Dr. Tazani recently taught a Web authoring course and was more than a little distressed when she received her final student evaluations. One of the biggest complaints was about her grading methods. Students said that course assignments and grades didn’t match up. Some complained that the course was too basic or advanced. She was horrified and wanted to avoid these problems in the future.

New and even experienced instructors commonly do not spend sufficient time considering the learning objectives for their courses and this lack of consideration often results in a mismatch between course content, activities, and assessments, as well as less-than-optimal learning, frustrated students, and poor evaluations. In online courses, clarity is even more critical because miscommunication is common and students get frustrated and off track more easily.

Because learning objectives significantly help instructors design good courses, and likewise, sharing these objectives helps them be clear with students, it’s worth taking the time and effort to learn how to write them and how to use them for better teaching and learning. This month I’ll concentrate on why you should write good objectives and the mechanics of writing them. Next month I’ll describe how to use objectives to match content, activities, and assessments.

Well-written learning objectives describe, in specific, measurable, and observable terms, the skills
students are expected to exhibit as a result of instruction. In other words, learning objectives answer the question, “What will the learner be able to DO?” rather than indicating what the student will be taught.

Dr. Tazani’s syllabus included vaguely written objectives, such as “Understanding graphic file size problems.” This lack of precision translated into students not knowing what was expected and Dr. Tazani not knowing the best content, activities, and assessments to use.

Well-written learning objectives serve two functions that are critical for quality teaching and learning:

- **Guide content, activities, and assessments:** Learning objectives describe the boundaries and scope of instruction. These boundaries and scope guide the selection of content, activities, and assessments.
- **Communicate instructional intent:** Learning objectives tell students (and other stakeholders such as department heads) the intent of instruction and what students will be expected to do.

### The right action verb

Well-written learning objectives always contain a specific, measurable, and observable action verb that describes the skill that the learner will exhibit. To make the learning objective even more specific, they may also include conditions and criteria for performance.

Selection of an appropriate action verb is critical for a well-written learning objective.

Table 1 shows six increasingly difficult skill levels and common action verbs (in bold) for each level.

The following verbs should always be avoided when writing objectives because they are not specific, measurable, and observable and therefore cannot easily guide content, activities, and assessments: understand, comprehend, appreciate, imagine, conceive, Grasp, be aware of, realize, learn, and handle

Here are some poorly written learning objectives that are written with the no-no verbs. Consider these to be non-examples!

- Understand the difference between basketball and football.
- Appreciate the consequences of medication errors.
- Know how to balance a checkbook.

### The right skill level

In addition to writing instructional objectives that are not specific, measurable, or observable, instructors commonly write objectives that are at too low a skill level. Consider what learners really need to be able to do with the content. For example, do they really only need to be able to list or do they really need to be able to determine or evaluate? If you select objectives that are at too low a skill level, there’s a good chance that you will also design activities and assessments
that are at too low a level. Result? Insufficient learning (a common problem that I’ll discuss more next month).

Can you see how the higher-level objectives in Table 2 are probably closer to what you want students to really be able to do than the lower-level objectives? Since objectives lead you to the course activities and assessments, the lower-level objectives are likely to lead you to less effective activities and content than the higher-level objectives.

**Terminal and enabling learning objectives**

Well-written learning objectives are often written at two levels:

- **Terminal objectives**: The primary skills (desired end results of instruction)
- **Enabling objectives**: Incremental skills that allow the desired end results to occur

See Table 3 for two examples of a terminal objective and corresponding enabling objectives.

**Your turn**

Well-written terminal and enabling objectives are a first step toward good instruction because they help instructors select appropriate content, activities, and assessments, and also help students know what to expect.

To gain practice, consider writing four objectives for a course you are developing (Table 4) and sharing it with other instructors to get feedback.

[In the next article] I’ll show how well-written terminal and enabling learning objectives guide selection of content, activities, and assessments. These are foundational skills for good instructional design and make the design process easier and more effective, which is good news for instructors and learners alike!

**References**


**To learn more**

Writing Learning Objectives

[http://depts.washington.edu/eproject/objectives.htm](http://depts.washington.edu/eproject/objectives.htm)

Major Categories in the Taxonomy of Educational Objectives

[http://faculty.washington.edu/krumme/guides/bloom.html](http://faculty.washington.edu/krumme/guides/bloom.html)
Table 1

<table>
<thead>
<tr>
<th>Easier Skills</th>
<th>Harder Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills Levels</strong></td>
<td><strong>Skills Levels</strong></td>
</tr>
<tr>
<td>Knowledge</td>
<td>List the five food groups in the food pyramid.</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Summarize the plot of the story in three sentences or less.</td>
</tr>
<tr>
<td>Application</td>
<td>Determine the dollar amount of the discount, given the original price and the discount percentage.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Select the best course of action in four types of angry customer situations.</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Based on client e-mails and phone conversations, formulate a plan of action.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Given window size, facing, type, and budget, assess which window treatment(s) will work best.</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Lower-level objective</th>
<th>Higher-level objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>List the components that need to be included in a proposal.</td>
<td>Draft a 10-page proposal that includes an executive summary, description, budget, organization information, and conclusion (call to action).</td>
</tr>
<tr>
<td>Solve percentage problems.</td>
<td>Determine the final discounted price of an item, given the original price and discount percentage.</td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Terminal objective</th>
<th>Enabling objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine the final discounted price of an item, given the original price and discount percentage.</td>
<td>• Determine the decimal fraction from the discount percentage. • Multiply the original price by the decimal fraction to determine the dollar amount of discount. • Subtract the dollar amount from the original price to determine the final discounted price.</td>
</tr>
<tr>
<td>Add slides to a PowerPoint presentation.</td>
<td>• Add a slide using the toolbar. • Select a slide layout. • Add and format the bullet text on the slide. • Add a graphic to the slide. • Add a slide using the menu. • Add and format the heading text on the slide. • Change the slide layout.</td>
</tr>
</tbody>
</table>

Table 4

<table>
<thead>
<tr>
<th>Who</th>
<th>Action</th>
<th>Conditions</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student will</td>
<td>assess which window treatment(s) will work best</td>
<td>given window size, facing, type, and budget</td>
<td>with fewer than 2 percent escalated to managers</td>
</tr>
<tr>
<td>The customer service rep will</td>
<td>manage client phone complaints</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.

2.

3.

4.

This article originally appeared in the newsletter *Online Classroom*, 5.11 (2005); 4, 5, 7.
Writing Learning Objectives That Help You Teach and Students Learn (Part 2)

By Patti Shank, Ph.D., C.P.T.

One of the most critical online teaching skills is designing good content and activities so that students can learn. In the last article (Part 1), I described how instructors too often do not put enough effort into considering the learning objectives for their courses, resulting in potential for mismatch between course content, activities, and assessments; less-than-optimal learning; frustrated students; and poor evaluations.

In online courses, well-written objectives are all the more critical because content and activity quality are quickly apparent and carry an enormous burden. When students begin an online course, they quickly judge the course by what they see. In addition, miscommunication is a common problem in online communications, so communicating what students need to do clearly and concisely (as well-written objectives do) is important. The bottom line is that objectives are critical to good design and to communicating intent. They describe in very specific terms what students will be able to do as a result of the instruction.

In Part I, I described how to create well-written objectives; in this part, I’ll show you how well-written objectives are used to select good assessments, content, and activities. In other words, well-written objectives point out what’s needed for a highly effective course, reducing your effort and aggravation and improving student outcomes.

Two Levels of Learning Objectives
Well-written objectives are commonly created at two levels—terminal and enabling. Terminal objectives describe what the student will be able to do as a result of the instruction. Enabling objectives are the incremental skills the student gains along the way to the terminal objectives. It might be useful to think of these as complete or whole skills (terminal objectives) and partial skills (enabling objectives).

Table 1 shows two examples of terminal objectives and corresponding enabling objectives so that you can see how the terminal skills are complete skills and the enabling objectives are the incremental steps along the way toward achieving the terminal objectives.

Good Objectives = Good Assessments, Content, and Activities
Well-written objectives make needed assessments, content, and activities obvious, so putting in the effort to write them first often saves time and rework (as well as other hassles). Let’s see how this works.
Assessments
Imagine an online faculty development workshop whose goal is to help faculty make good use of media (such as videos, Web pages, electronic discussions) in their teaching. One of the workshop’s terminal and corresponding enabling objectives are shown in Table 2.

Let’s break the terminal objective into its components parts as shown in Table 3. The purpose of learning assessments is to measure whether the objectives were met. A well-written learning objective provides extremely strong clues about how to assess it. The reverse is also true—if you can’t easily determine an assessment from the objective, it’s a clue that the objective isn’t well written. Writing objectives and determining assessments are flip sides of the same coin.

Carefully analyze the components of the terminal and enabling objectives for the media use workshop to see what clues about appropriate assessments are there. The terminal and enabling objectives have specific actions (that the student must do) that point to what needs to be assessed as well as the conditions and criteria for assessment.

So given the actions, conditions, and criteria, how should you assess whether this objective was achieved by students? Write down your answer on Table 4 before you look at my answer in Table 5.

I want to know if workshop participants are able to create a two-hour unit of instruction that incorporates multiple media effectively (according to the media selection guidelines). My objective is specific, measurable, and observable (hallmarks of a well-written objective) and tells me how to measure whether it has been achieved. I ask workshop participants to do what the objective states, and this is my assessment—elegant and simple.

Content and Activities
Once you know what assessments are needed, your next task is to design content and activities so students can gain adequate understanding and practice to be able to perform at the desired level on assessments (thereby showing they have met the learning objectives).

Look once again at the components of the terminal and enabling objectives for the media use workshop to see what clues are there about valuable content and activities. What content and activities are needed so workshop participants can gain adequate understanding and practice to be able to perform at the desired level on assessments (thereby showing that they have met the learning objectives)? Write down your answer on Table 6 before you look at my answer in Table 7.

One Right Answer?
If your answers and mine don’t match, is your answer wrong? Probably not. This process is called instructional design for a reason—the word “design” implies that there are some good/better answers and other not-so-good/poor ones. To be a good answer, the assessment must effectively measure the achievement of the objective. For example, you might have chosen a case
with preselected instructional objectives that students could work through. That’s another good choice. I don’t think this objective would have been effectively measured through multiple choice questions, but if you’re great at writing scenario-based questions, you might be able to make it work.

When it comes to selecting good activities, the potential for creative capacity is very good. As long as the content and activities allow workshop participants to gain adequate understanding and practice so they can perform at the desired level on assessments, the content and activities are likely to be effective.

Well-written learning objectives, seen by some as a dogmatic or an unproductive part of the instructional design process, can actually reduce the time, rework, and frustration of building good online (and other) courses. That’s time well spent, if you ask me. In the next article, we’ll delve a bit deeper into selecting the right kinds of assessments.

References
Table 1

<table>
<thead>
<tr>
<th>Terminal objective</th>
<th>Corresponding enabling objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine the final discounted price of an item, given the original price and discount percentage.</td>
<td>• Determine the decimal fraction from the discount percentage.</td>
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<tr>
<td></td>
<td>• Multiply the original price by the decimal fraction to determine the dollar amount of discount.</td>
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<tr>
<td>Add slides to a PowerPoint presentation.</td>
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<tr>
<td></td>
<td>• Add a slide using the menu.</td>
</tr>
<tr>
<td></td>
<td>• Select a slide layout.</td>
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<tr>
<td></td>
<td>• Add and format heading text on the slide.</td>
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<tr>
<td></td>
<td>• Add and format bullet text on the slide.</td>
</tr>
<tr>
<td></td>
<td>• Add a graphic to the slide.</td>
</tr>
<tr>
<td></td>
<td>• Change the slide layout.</td>
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</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Terminal objective</th>
<th>Corresponding enabling objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the media selection guidelines, create a two-hour unit of instruction that effectively incorporates more than one medium.</td>
<td>• Select suitable media for each objective.</td>
</tr>
<tr>
<td></td>
<td>• Design content and activities that effectively use these media.</td>
</tr>
<tr>
<td></td>
<td>• Assemble the unit.</td>
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</table>

Table 3

<table>
<thead>
<tr>
<th>Action</th>
<th>Conditions</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>create a two-hour unit of instruction</td>
<td>using the media selection guidelines</td>
<td>that effectively incorporates more than one medium</td>
</tr>
</tbody>
</table>

Table 4 - Your answer

<table>
<thead>
<tr>
<th>Objective(s)</th>
<th>Assessment(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the media selection guidelines, create a two-hour unit of instruction that effectively incorporates more than one medium.</td>
<td>Using the media selection guidelines, create a two-hour unit of instruction that effectively incorporates more than one medium. Design a two-hour instructional unit with more than one medium that adheres to media selection guidelines.</td>
</tr>
</tbody>
</table>

Table 5 - My answer:

<table>
<thead>
<tr>
<th>Objective(s)</th>
<th>Assessment(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design a two-hour instructional unit with more than one medium that adheres to media selection guidelines.</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 - Your answer

<table>
<thead>
<tr>
<th>Objective</th>
<th>Assessments</th>
<th>Content and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the media selection guidelines, create a two-hour unit of instruction that effectively incorporates more than one medium.</td>
<td>Design a two-hour instructional unit with more than one medium that adheres to media selection guidelines.</td>
<td></td>
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</table>

Table 7 - My answer

<table>
<thead>
<tr>
<th>Objective</th>
<th>Assessments</th>
<th>Content and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the media selection guidelines, create a two-hour unit of instruction that effectively incorporates more than one medium.</td>
<td>Design a two-hour instructional unit with more than one medium that adheres to media selection guidelines.</td>
<td>Students will:</td>
</tr>
<tr>
<td>Students will: 1. Select 1-2 objectives for their instructional unit and select suitable media for each objective 2. Share 1. with their team and the facilitator and get feedback on suitability 3. Revise their media selection as needed 4. Design content and activities that effectively use the selected media 5. Assemble the unit for presentation 6. Present the unit to the class and gain feedback from their team and the facilitator</td>
<td></td>
<td></td>
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This article originally appeared in the newsletter *Online Classroom*, 5.12 (2005); 4, 5, 8.
Motivation—there are two kinds: intrinsic, which involves doing something because we want to do it, and extrinsic, which is doing something because we have to do it. A negative relationship exists between the two. Extrinsic motivation undermines intrinsic motivation. Students won’t be attending class because they want to if attending class is required. As a result of this negative relationship, students don’t have much intrinsic motivation because it’s been beaten out of them by most extrinsic educational experiences. And that’s a nutshell version of how most teachers understand motivation.

Is that all there is to it? Steven Reiss doesn’t think so, and he has done lots of research that supports his view. But first he goes after the intrinsic-extrinsic dualism, which he says fails on three counts: construct validity, measurement reliability, and experimental control. Starting with construct validity, Reiss writes, “The distinction between intrinsic and extrinsic motivation is invalid ... because motives cannot be divided into just two categories. ... Human motives are too diverse to fall into just two categories.” (p. 152) He then explains the measurement problems and experimental control issues. The research that demonstrates an undermining effect (that extrinsic motivation diminishes intrinsic motivation) is almost entirely based on single-trial studies conducted in lab settings. “Consequently, this literature says little about real-world, long-term rewards such as grades and pay.” (p. 154) If the empirical arguments are of interest, they are more fully explained in the article.

Reiss proposes a multifaceted theory of motivation. In his research he identified 16 distinct universal reinforcements that he developed into an assessment tool called the Reiss Motivation Profile. “Everybody is motivated by the 16 universal reinforcements, but not in the same way. Individuals show reliable individual differences in how they prioritize these 16 reinforcements.” (pp. 154-155) These 16 reinforcements are listed in the article and they include the following motivations (among others): eating, the desire for food; curiosity, the desire for understanding; independence, the desire for self-reliance; social contact, the desire for peer companionship; and vengeance, the desire to confront those who offend.

To show the inadequacy of the intrinsic-extrinsic dualism, Reiss suggests giving students a list of motives like those on the profile and then asking students to rank their importance. “Doing this tends to show the extraordinary individuality of how people prioritize motives.” (p. 155) Some students rank money and status very high; others list the desire for social justice as much more motivating than money. Reiss asks whether “the information contained [on the various student lists] could possibly be captured by dualism, which only has two categories or kinds of motives. Dualism does not state what moves us; it does not show how we differ as individuals.” (p. 155)

Reiss says that researchers have moved beyond the dualistic study of intrinsic and extrinsic motivation. They see motivation as multifaceted, and he challenges teachers to move forward in their thinking as well. Students in our classrooms do and don’t do things in response to a variety of
motives. It’s more complicated than we tend to think, but this new understanding of motivation better explains how it works and can be harnessed in the interest of learning.


This article originally appeared in the newsletter The Teaching Professor, 26.5 (2012); 3, 4.

Using Self-Determination Theory to Improve Online Learner Motivation

By Rob Kelly

According to self-determination theory, a theory developed by Deci and Ryan, three basic psychological needs affect motivation: autonomy, competence, and relatedness. Susan Epps, associate professor of Allied Health Sciences, and Alison Barton, associate professor of Teaching and Learning, both at East Tennessee State University, have used this theory to develop ways to improve online learner motivation.

Autonomy

In this context, autonomy does not refer to independence but to the desire to have control over one’s own life and to make choices based on personal preferences. In an online course, this means providing students with opportunities to have some control over the learning experience.

Creating a sense of autonomy helps students make choices that emphasize what they value, which can increase the subjective value of the learning—the sense that the learning is relevant to one’s life, Barton says.

Here are some ways to offer students choices:

- **Content**
  Barton has her students, who are preservice teachers, facilitate online discussions about lesson plans that each student develops. Each student gets to decide what the lesson will be, which content from the module to include, and which theories to demonstrate. “That, I hope, makes it more of a motivating experience for them because they’re writing a lesson about something they want to write about,” Barton says.

- **Format**
  In some instances Epps gives her students choices on assignment format such as a paper or a narrated PowerPoint presentation. “When they feel they’re choosing something that is relevant to them, they actually do better work,” Epps says.

- **Grade weighting**
In the past, Barton has offered students options on how much various assignments, quizzes, and tests will count toward the final grade. “If they’re not great test takers, you may offer them an option where their assignments or final projects are given more weight,” she says.

• **Competence**
  Feeling competent and having a sense of self-efficacy can be highly motivating. These are some ways that Epps and Barton instill competence in their students:

• **Selective release**
  In a poll of online learners that Epps conducted, a complaint was that they feel overwhelmed by all the content of an online course. One way to alleviate this issue is to use the selective-release feature common to many learning management systems. This feature enables the instructor to keep elements of the course hidden from students’ view until they are needed.

• **Checklists**
  Another way to prevent students from feeling overwhelmed by the course is to provide checklists for them to follow to ensure that they are on schedule and haven’t forgotten anything. “My students are in a bachelor’s completion program for students who already have occupations in allied health. The majority of them work full time and do shift work. They need to plan out their schedule as much as they can in advance. For a lot of them it stresses them out if they don’t know what’s coming later in the semester,” Epps says.

• **Metacognitive reflection**
  At the beginning of each module, Barton has her students reflect on their performance in the previous module and explain how they plan to improve. “This is a way to have them state some goals for themselves and raise their awareness of their self-regulation skills,” Barton says. “The honesty I get in those is refreshing. And I think the process for a subset of students is eye-opening.”

• **Early success**
  Early success in a course can help students feel competent. This can be accomplished by having students complete relatively easy, low-stakes assignments at the beginning of the course, followed by higher-stakes tasks as the course progresses.

• **Feedback**
  Students need prompt feedback on their work. For example, Barton uses mid-discussion feedback to let students know how they are doing in a particular discussion and to offer suggestions on how to improve before the discussion has ended.

Feedback on writing assignments can be in text or audio format. Epps cautions against getting bogged down in correcting every single error in writing assignments. In addition to taking an inordinate amount of time, an overly marked-up assignment can undermine a student’s sense of competence and therefore decrease motivation. Instead, Epps recommends providing overall feedback, remembering to include positive comments.

When many students make the same errors, Epps will post an announcement or send an email, saying something such as, “Here’s an area that students are consistently getting wrong. Maybe I wasn’t clear in my instructions. Let me go back and revise them to make sure you understand
them for the next assignment.”

Feedback need not be in text form. Whether it’s an announcement to the class or an individual comment on an assignment, a short audio recording can be an effective way to provide feedback. Barton uses SoundCloud (www.soundcloud.com), a service that enables users to record audio and simply embed a link in a document or send a link to the recipient.

**Relatedness**

Relatedness refers to the social aspects of the learning experience—the sense that students feel they have a connection to the instructor and classmates. Some of the ideas mentioned above contribute to a sense of relatedness, including timely feedback and participation in discussions.

In addition, instructors need to convey a sense of presence and approachability. Here are some ways to accomplish this:

- **Video**
  Barton recommends including video of the instructor throughout a course “so they hear your voice, see your face, feel you’re a real person who didn’t just build the course and walk away—but [is] active in there,” she says.

- **Participation in discussions**
  “I don’t see discussion boards as being for the students alone. Some of the most positive feedback on my evaluations is about my participation in the discussion boards,” Epps says. “Students say things like, ‘Wow you’re actually engaged on the discussion board.’ I feel that if I’m not engaged with the students, what’s their incentive to have high-quality discussions or to question each other? When the students see that I’m interacting with them, they will step up their level in the discussion.”

Students also need to feel a sense of connection with their peers. Barton divides her class into thirds for discussions so that students create connections with a subset of the class, which makes it less likely that they will lurk in the background or be overlooked.

Epps has each student introduce himself or herself in a PowerPoint presentation, which helps students create connections that build in the discussion board. When students know each other’s backgrounds it’s more likely that they will ask relevant questions and get a real sense of how what they’re learning in the course relates to their lives, “and knowing that other people are expecting them to be there and respond to a question asked of them directly will help with motivation as well,” Epps says.

**Reference**


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Ways to Achieve Student Engagement

By Maryellen Weimer, Ph.D., Professor Emerita of Teaching and Learning, Penn State Berks

Student engagement is another of those buzz phrases popular in higher education. As with many regularly used terms, everyone assumes we are talking about the same thing; but when asked for definitions, either we are hard pressed to come up one or what’s offered is a decidedly different collection of definitions. Here’s an article that includes clear definitions and, based on a creative synthesis of research, offers 10 ways to promote student engagement.

The authors propose definitions broad enough to include more specific descriptions. For example: engagement is “students’ cognitive investment in, active participation in, and emotional commitment to their learning.” (p. 168) Or, engagement is “students’ involvement with activities and conditions likely to generate high-quality learning.” (p. 168)

Based on this synthesis of research, student engagement can be promoted by teachers and institutions in the following ways:

**Enhance students’ self-belief**
There is no agreement in the research literature as to what motivates learners to engage, but the dominant view is that students engage when they act as their own learning agents working to achieve goals meaningful to them. This means that what students believe about themselves as learners is very important. They must believe they can learn, including that they can overcome and learn from failure experiences. Giving students some control over learning processes helps develop this confidence and commitment to learning.

**Enable students to work autonomously, enjoy learning relationships with others, and feel they are competent to achieve their own objectives**
“When institutions provide opportunities for students to learn both autonomously and with others, and to develop their sense of competence, students are more likely to be motivated, to engage and succeed.” (p. 170) Not unrelated to the first recommendation, the focus here is on cultivating intrinsic motivation, which fosters the self-determination that leads to engagement.

**Recognize that teaching and teachers are central to engagement**
Much research places teachers at the heart of engagement. For example, one study found that “if the teacher is perceived to be approachable, well prepared, and sensitive to student needs, students are committed to work harder, get more out of the session, and are more willing to express their opinion.” (p. 170)

**Create learning that is active, collaborative, and fosters learning relationships**
“Findings acknowledge that active learning in groups, peer relationships, and social skills are important in engaging learners.” (p. 171)
Create educational experiences for students that are challenging and enriching and that extend their academic abilities

Easy learning activities and assignments are not as effective at engaging students as activities and assignments that challenge them. When students are reflecting, questioning, conjecturing, evaluating, and making connections between ideas, they are engaged. “Teachers need to create rich educational experiences that challenge students’ ideas and stretch them as far as they can go.” (p. 171)

Ensure that institutional cultures are welcoming to students from diverse backgrounds

To become engaged, students must feel they are accepted and affirmed. They must feel they belong at an institution.

Invest in a variety of support services

Sometimes it seems as though students don’t take advantage of support services like learning and advising centers, but a wide variety of research findings confirms the importance of these support services. They are perceived as part of the institutional culture, and students engage when that culture values and supports their efforts to learn.

Adapt to changing student expectations

An institution should never be satisfied with how it is promoting student engagement. As students change and new research evidence emerges, institutional practices should be adjusted. Engagement cannot just be promoted, it must also be maintained.

Enable students to become active citizens

“What is needed is a democratic-critical conception of engagement that goes beyond strategies, techniques, behaviours, a conception in which engagement is participatory, dialogic and leads not only to academic achievement but to success as an active citizen.” (p. 173)

Enable students to develop their social and cultural capital

This kind of capital derives from a sense of belonging, from active relationships with others, and from knowing how things work around the institution. It is especially essential for minority students who need to be successful not only in the classroom but beyond it as well.


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A Three-Pronged Approach to Improving Student Engagement, Critical Thinking

By Rob Kelly

Monica Rothschild-Boros, an art appreciation and cultural anthropology instructor at Orange Coast College, uses a combination of embedded lecture questions, threaded discussion, and innovative assignments to engage students and get them to think critically in her online courses.

Online lectures
Rothschild-Boros offers her online lectures in several formats. She creates them as PowerPoint presentations and includes narration, converts them to pdf, and uploads them into iTunes, “so [students] can take them to the beach and have no excuse for having trouble accessing the lecture.”

In addition to offering the lectures in students’ preferred formats, she includes embedded questions within each, sometimes up to 10 per lecture, that ensures that students read the material and that they think about it more deeply than they might otherwise.

Some of the questions are straightforward and are intended to demonstrate that the students have viewed the lecture and read the textbook and supplemental readings. Others are open ended and encourage students to explore how the concepts relate to them personally.

For example, in a unit on gender, student asked to read a series of articles and answer the question, Which of these articles made you look at the issue of gender differently and why? In a lecture on sex and marriage, she asks students, “Have you ever been subjected to the Romeo and Juliette question—who you can and can’t marry? Have your parents ever made and endogamous or exogamous restrictions on you? All of a sudden it applies to them. For some it’s a revelation, and because the course is online, some students are much more forthcoming than they would be in the on-campus class.”

Students submit their answers to Rothschild-Boros, and she reads them and offers feedback, including an “answer key that gives my ideal answer to the question plus a variety of answers that other students have given that I thought were excellent answers.”

Although this approach is labor intensive for the instructor, it seems to get good results. Students often say that they never thought they could do so much work and that they view the world differently as a result of thinking about these questions.

As the instructor and the one reviewing and offering feedback on student’s responses to these questions, Rothschild-Boros makes it a point to ask questions that will likely result in interesting answers from students to help keep her engaged in the course as well.
Discussion forums

Rothschild-Boros uses threaded discussions to get students to interact on hot-button issues. As with the embedded lecture questions, the goal with these discussion forums is to make the course more relevant and engaging.

One rule of these forums is that each student needs to make a unique contribution rather than repeating one another. For example, in a unit on modernization, she asks, What gadget or innovation would they like to eliminate if they could? Each student has to come up with a different one and explain why he or she chose it and what the invention has done to the culture. “They’re looking at the concept of modernization, and it becomes real to them on a personal level.”

Assignments

Just because a course is online does not mean that students cannot engage in real-world situations. In her cultural anthropology course, Rothschild-Boros has each student visit an ethnic market outside his or her own culture and write about the experience. “They have to stick out like a sore thumb. I tell them it’s like traveling without the jet lag and currency conversion. On the one hand it’s fun because they’re going someplace they have never been, but at the same time they have a list of things they have to explore within the market. They become field anthropologists. Every student’s paper will be different even if some of them visit the same market because they enter with different a priori knowledge, and they process what they see differently.”

Rothschild-Boros enjoys the different perspectives her students bring to her courses, and she deliberately creates assignments that bring out these differences because sharing different perspectives enhances critical thinking and also because they make the course more enjoyable for her. “My goal is to create assignments that are fun for my students and fun for me to read. It’s a win-win. The students have assignments that they find interesting and can customize and personalize to their own interests, and I get a wide variety of papers that are not all the same.”

This last point is not trivial, Rothschild-Boros says. “From the faculty perspective, you don’t want to be reading 50 answers that are all the same. The more engaged you are, the more likely you are to give feedback to your students.”

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Frequent, Low-Stakes Grading: Assessment for Communication, Confidence

By Scott Warnock, Ph.D., associate professor of English and director of Drexel Writing Center, Drexel University

After going out for tacos, our students can review the restaurant on a website. They watch audiences reach a verdict on talent each season on American Idol. When they play video games—and they play them a lot—their screens are filled with status and reward metrics. And after (and sometimes while) taking our classes, they can go online to www.ratemyprofessors.com.

It may surprise us to think of it like this, but today’s students grew up in a culture of routine assessment and feedback. Yet when they click (or walk) into our courses, the experience is often quite different: there are few high-stakes grades, big exams, or one-shot term papers. Despite critiques of high-stakes testing—Wideen et al. (1997) said such “examinations discouraged teachers from using strategies which promoted enquiry and active student learning [...] this impoverishment affected the language of classroom discourse”—teachers often still see “assessment as an index of school success rather than as the cause of that success” (Chappuis and Stiggins, 2002).

Certainly, grades, when misused as what Filene (2005) calls a “pedagogical whip,” can lead to problems: Grading curves pit students against each other, fostering strategic rather than deep learning (Bain, 2004). High-stakes grading may contribute to grade inflation (Rojstaczer and Healy, 2010). Grading pressures may even encourage cheating.

I offer the strategy/philosophy of frequent, low-stakes (FLS) grading: simple course evaluation methods that allow you to provide students with many grades so that an individual grade doesn’t mean much. FLS grading can work in any course but is especially useful online, as it provides grade transparency for students and creates a steady information flow in an environment in which student-teacher communication is crucial to success. FLS grading can have several advantages:

- **It creates dialogue.** Frequent grades can establish a productive student-teacher conversation, and students have an ongoing answer to the question, “How am I doing?”
- **It builds confidence.** Students have many opportunities to succeed, and there is a consistent, predictable, open evaluation structure.
- **It increases motivation.** FLS grading fits into students’ conceptions—and, perhaps, expectations—of assessment and evaluation: This is the culture they grew up in!

Some teachers may have an “allergic” response to the idea of giving lots of grades, but much “classic” pedagogical thinking (and writing) about grading predates both this culture of assessment and feedback and the teaching technologies now available, especially to online instructors. While some may resist grade-centric approaches, remember, in ideal teaching, perhaps everything is formative and you have small ratio, even one-on-one, interactions with students. Maybe there are even no grades at all. But such ideal environments are rare. We must give grades, so the issue is how we grade to the benefit of students.
The growth of online courses provides additional exigency for FLS grading. I’m always skeptical about those who privilege teacher-student interactions in onsite courses—how often do students talk to the instructor of their 200-student onsite lecture course?—but no doubt a key to effective online pedagogy is making sure you are present for students as their teacher. All students benefit from having a clear idea of their overall course standing, but we need strategies to provide online students with meaningful communications about the course, and what is more meaningful to students than clear grade data?

Frequent grade information also provides motivation, another especially important factor in online student success (i.e., see Schrum & Hong [2002]). Frequent, immediate grade data should help students overcome the inertia of procrastination far better than that delayed reward of the grade far off in week 12.

FLS grading does mean that you will re-conceptualize the grading function in your course, and while FLS grading has a summative micro structure—sure, you give grades—the overall structure is formative. You can remove unproductive grading pressure, encourage intellectual risk-taking, and discourage plagiarism/cheating. And especially online, your overall response strategy will include this grade-based dialogue with your students.

You can still have your major papers and exams, but with FLS grading, a series of low-stakes assignments helps uncover points of intervention long before any high-stakes evaluation. Teachers are busy, but FLS grading can actually result in less work overall if done right, as dialogue occurs through the grades. For FLS grading, you will shift your course requirements, like this:

FLS is about feedback. Really, a high-stakes evaluation structure often precludes a feedback plan: You basically just provide summative evaluation. The meaning of “frequent” will vary based on your teaching style. At one time, I provided as many as five grades per week. I have shifted my approach, clumping various small assignments into one weekly grade so, each week students get one status grade, although I can break that down to individual assignments for them if asked.

I’ll focus on two particular assignment methods: informal writing and quizzes.

Frequent short, informal writing assignments can take many forms:

- Responses to readings or focused content questions
- End-of-unit notes on important or confusing points, questions
- Journals
- Brief annotations or notes about calculations, charts, tables
- Metacognition: Have students think through/reflect on reasoning, thinking, writing processes
The technological environment of online learning is a major asset in using short, informal writing. Technology reduces the paper shuffle, easing logistics, and digital writing forums and tools allow students to write to one another, making open dialogue a fundamental course component. Message boards are an easy-to-use and readily available dialogic technology for online courses, and blogs or even wikis can be used to replace notebook-based response journals.

Rubrics provide structure for responding to writing and demystify evaluation – for you as well as the students. A simple rubric for brief informal writing could involve two simple criteria, on a scale of 1 to 5:

- Demonstration of understanding of a key idea.
- Writing quality (judged loosely).

When developing a rubric, remember what you want the assignment to accomplish. This is your decision based on your course goals. Don’t outsmart yourself. In line with writing across the curriculum approaches, remember what you’re trying to accomplish when you assign informal writing, and remember what you don’t want to worry about. You do not need to evaluate everything. For instance, if you want to evaluate their understanding of a main idea about a chapter but end up pegging them for dangling modifiers, you will likely become frustrated and may give up on using informal writing at all. Think about simple, specific, often content-oriented goals you want to assess. Rubric performance language/levels can be simple, excellent to poor, and reflect a range of responses. You can use rubric creation tools like Waypoint Outcomes or Rubistar.

**Quizzes** (as I’ve written about previously in *The Teaching Professor* [2004]) need not be a pedagogical stick. Quizzes should be easy to create, take, and grade. They should have a specific objective. For instance, I always give straightforward, weekly online reading quizzes, almost at this level: “What large sea mammal is featured in Moby Dick?” I just want them to read.

Technology again simplifies logistics, easing both assignment submission and grading. Course management system (CMS) assessment tools allow for simple quiz features like question sets so not all students receive the same questions, and I use the basic simplicity, frequency, and low-stakes aspects of my quizzes to discourage cheating.

The primary question most teachers have is this: How do I give lots of grades without breaking my back? Again, use a simple grading scale for individual assignments: 1 to 3, 1 to 5, 1 to 10, or even a check/check plus system. You can share/display grades in a CMS grade book. Remember, the object is creating grade-centric feedback, and the time payback comes when students do not constantly have to reach out to you about class performance; they already know, and when they do raise questions, the conversation is more focused than, “So, how am I doing in this class?”

Filene (2005) said, “For better or worse, grades matter; the challenge is how to make them work for your purposes.” FLS grading can demystify course assessment, letting your online students know how they are doing. Done right, it can result in less work/stress for teachers, helping
identify struggling students early. Communicating meaningfully with every student is a teaching challenge, but a stream of FLS grades allows students to know where they stand so they can better reach their goals in our courses.

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A Grade Forecasting Strategy

*By Michael J. Armstrong, Brock University, Ontario, Canada*

Optimism is generally a good thing, but it can sometimes interfere with learning. Some students are overly optimistic about their learning progress and anticipated course grades, with weaker students being more likely to overestimate how well they are doing in the course. This can hinder their academic success. There’s no reason to adjust their behavior (say, by studying more) if they believe they are already doing well.

One way to mitigate this tendency is to provide students with grade feedback beyond their scores on quizzes and marks on assignments. For example, some professors administer a practice exam that students take before the exam that counts. Others have students keep journals or learning logs in which they critically reflect on their learning as the semester unfolds.

I have been experimenting with another form of supplementary feedback. I give my second-year
undergraduate students the opportunity to forecast their final course grades while the course is still under way. The goal of this predictive or prognostic feedback is to help the students develop a more realistic assessment of their progress in the course and consequently make better decisions about how much time and effort they need to devote to the course.

To do this, each semester I use linear regression to calculate the relationship between the grades received on quizzes and assignments and the overall final course grades. I use data collected from students who've taken the course previously. I then embed the resulting regression equation in an Excel spreadsheet and post it on the course website. After demonstrating the spreadsheet in class, I let the students try it for themselves outside class on a voluntary and anonymous basis. At the end of the semester I follow up with a short survey.

Of 465 students enrolled in the course during 2010–2012, 282 completed the survey. Of those, 144 (51 percent) said they had tried the forecasting spreadsheet. The rate of trial varied with academic performance. “A” students were 7.6 times more likely than “D” students to report trying the spreadsheet. Of those who did participate, 29 percent of them said the forecast grades were lower than they had expected, while only 6 percent said they were higher. This imbalance indicates the degree to which students are overly optimistic about their course grade.

As for the impact of these grade forecasts, 31 percent of the respondents said the forecasting experience made them feel more positive or confident about their course progress, while 35 percent said they felt more negative or worried. Fifty-six percent said their motivation had increased, while 7 percent said it had decreased. Forty-seven percent said they were subsequently studying more than they had previously planned, while 3 percent said they were studying less. And 74 percent recommended that grade forecasting continue to be offered in the course, while 6 percent recommended against it.

Students reported that they studied more if their grade forecast increased their anxiety, increased their motivation, left a positive impression, or forecasted a low grade. Puzzlingly, the amount of difference between the forecast grades and students’ prior expectations for those grades showed no direct influence on motivation or studying.

These results suggest that grade forecasting can be a useful addition to a course but that its effects on student motivation and effort are largely indirect. I am currently working with one of my colleagues on a follow-up study to better understand this relationship.

This article originally appeared in the newsletter *The Teaching Professor*, 27.5 (2013); 2.
When Hayley Lake, lecturer at Eastern Washington University, got the opportunity to develop an online version of Survey of Alcohol & Drug Problems, a multidisciplinary course that draws students from a variety of majors and backgrounds, she knew that online discussions would be an essential feature of the course. She had taught the course in the face-to-face environment and saw a lot of room for improvement—despite the diversity of students and the inherent potential for lively discussions, the course lacked engagement and rigor.

She worked with instructional designer Patrick Lordan to address the shortcomings of the course by incorporating highly structured discussions and a discussion board audit. The 10-week course features one to two online discussions per week. To encourage students to get away from simply posting their opinions about the subject matter, they are required to research their posts and provide proper APA citations.

“I wanted my students to cite and support their comments because everybody has an opinion about alcohol and drugs. I want to know where they get [their opinions] and to make them credible opinions,” Lake says.

She also wanted to design the course so that students would reflect on their learning and there would be a sense of closure when the course ended. She and Lordan brainstormed ideas on how to accomplish this. In the process Lordan came across a ProfHacker blog post by an English professor who had students blog and do blog audits at the end of the course, essentially having students reflect on their postings and how their thinking progressed throughout the course.

The audit
The discussion board audit is the final assignment in the course in which each student analyzes his or her contributions to the discussion board. It’s a more open-ended assignment than the discussion board discussions. Students do not need to provide citations. They are simply asked to go back and reread all of their posts and comments and reflect on them in a four-to-five-page paper. The following are suggested questions for the students to consider:

- What do you usually write about in your posts?
- Are there broad themes or specific issues that keep appearing in your writing?
- Has the nature of your posts changed over the quarter?
- What surprised you as you reread your work?
- What ideas or threads in your posts do you see as worth revisiting?
- How do you feel you’ve contributed to the online learning community through the discussion board?
- What else do you notice?
• What aspects of the weekly discussion do you value most, and how does it show up in your posts?

Outcomes

The responses to this assignment indicate that this is something new for the students. Other instructors don’t ask them to do this type of metacognitive assignment. Some students may question why they are being asked to do this, but they eventually see the point. “They’re surprised at how much they’ve improved,” Lake says. “At first they’ll say, ‘I thought this was a stupid assignment. Why would I go back and look at all the work I’ve done?’ Then they’ll comment, ‘Oh, I’ve learned so much. My opinion on this has changed. My writing has improved. My research has improved. My critical thinking has improved.’”

In an analysis of four sections—two online and two hybrid—“you can see the same kind of excitement in the students,” Lordan says. Students typically mention improvement to their critical thinking, writing, time management, research, and study skills. They say they enjoyed the interaction and feedback of the discussions. They see the relevance of the discussions to the course content and the real world.

These are some student comments from this assignment.

“I’ve never taken a class that required me to look back at my earlier work and evaluate it … so my expectations were pretty low. However, as I read through my posts and comments, I saw significant growth.”

“My first thought when I saw the assignment was that it was just going to be busy work for us. I was wrong. I now have an appreciation for discussion assignments that I never thought I would have.”

“If I use valid, credible facts to back up my opinions, my peers are more likely to respond … and to take my opinions seriously.”

Lake has used the discussion board audit only at the end of the course. Although it might work to do it earlier in some courses, she is not sure it would work in her course. “I’ve seen so much change [in students] at the end of the course and value it so much that I’d hate to mess with it,” she says.

In addition, because students often come to this course with strong opinions and little education on the topic, it may take more time for those opinions to change and for students to acknowledge those changes, Lake says.

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Feed-Forward: Constructive Feedback for Future Assignments

By Maryellen Weimer, Ph.D., Professor Emerita of Teaching and Learning, Penn State Berks

There continues to be interest in the kind of feedback that helps students make changes that improve their work. Take something called feed-forward, for example. It’s defined as “timely and constructive feedback that feeds into the next assignment.” (p. 451) Here’s a study that assessed a unique form of feed-forward.

The students in the study were seniors enrolled in a three-year criminology program at a university in Australia. In the course where the study took place, assignments include a traditional exam that tests content knowledge and preparation of a case study of a youth agency or organization. “The aim ... is for students to explore the ways in which community agencies, through services designed to address such problem areas, may also contribute directly and indirectly to crime prevention.” (p. 454) The course website lists this question as the overarching one for the assignment. “From what I have read and from my observations of my chosen agency, what have I learned about working with young people that might relate directly or indirectly to youth crime and/or crime prevention?” (p. 454)

The objective of the feed-forward exercise “was to improve students’ understanding(s) of the kind of coherence and integration which should characterize complex pieces of assessment and hence to improve the quality of their own case studies.” (p. 454) To accomplish that goal, the instructor posted online six anonymous examples of previous case studies (posted with permission, of course). They ranged in quality from outstanding to barely passing. Students selected three of these exemplars. Taking the position of teacher, they then graded the three. Using between 100 and 150 words for each exemplar, they explained the rationale behind their grade. A “tips sheet” on the course website offered some questions they were to consider as they evaluated each of the exemplars. For example, “Can you follow [the assignment]?” “Is it coherent?” “Does it move along smoothly?” “Does the writer sound like he/she really knows what they are talking about?” “Is there a sense of depth of understanding?” “Does it link [to] the literature [when discussing] the organization?” (p. 456)

This activity was a graded assignment worth 10 percent of the case study project grade, which was worth 30 percent of the course grade. The various grades assigned to each exemplar, along with the grades given to them by the instructional team, were subsequently posted.

Did the opportunity to read and assess case studies written by other students improve the grades these students received on their case studies when compared with a cohort who did not complete the feed-forward activity? It did. Researchers describe the improvement as “significant” and point out that it crossed all ability levels. While students with higher GPAs on entry still scored higher
on their case studies, students with lower GPAs also significantly improved their grades. (p. 463)

Also of note: these students were able to fairly accurately identify the quality levels of the various exemplars. “There was broad, but not close, agreement between staff and students on the relative merits of the exemplars as indicated by mean marks, although the actual range of marks allocated by students varied considerably.” (p. 459) And they did this without the teacher devoting class time to the mechanics of case study assessment.

The researchers conclude by asking whether a 7 percent improvement in one of the major assignments in the course justifies the inclusion of a feed-forward activity such as this one. They say that decision belongs to course designers, and it does. But their research does offer evidence that looking at the work of other students and making a judgment about it does in some way help students improve their own work. That’s not always the result when students read the comments written by teachers on their papers.


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Does It Matter How We Give Our Students Feedback in a Technology-Mediated Environment?

By Brian E. Harper, Ph.D. and William Beasley, Ed.D.

Yvonne is frustrated. She wants to do well in her language arts class, but each essay she completes fails to earn her the grade she believes she deserves. Although her teacher thoughtfully writes out corrective comments on her essays, to Yvonne these seem to run together, forming a nonsensical sea of red ink. With each assignment, she feels less capable and grows more resentful of her instructor.

Mr. Collier is frustrated. He has been teaching language arts for well over two decades. He is thoroughly convinced of the importance of developing good writing skills and spends countless hours poring over student submissions, making numerous editorial comments in an effort to encourage them to develop as writers. Sadly, he finds that many of the students he teaches focus only on the final grade and express little interest in revising their work.
Does this scenario sound familiar? We work hard as teachers to provide constructive feedback, only to find it ignored or resented. Problems in student writing persist and sometimes even worsen, while both students and faculty members grow increasingly frustrated.

Teachers who wish to provide meaningful feedback to which students will actually attend need to focus on two key components: 1) the content of the verbal feedback and 2) the nature of the vehicle(s) used to deliver the feedback.

With respect to the content, it is imperative that all communication between teacher-as-editor and student reflect relatedness, competence, and autonomy. Relatedness is the extent to which a teacher communicates an individually focused knowledge of a given student’s strengths and weaknesses, concern for him or her as an individual, and high performance expectations. The ability to do this is dependent on time previously spent building relationships with students; comments incorporating relatedness will emerge from the experiences and interactions you have shared. Strategies here include addressing comments to students by name and referencing previous individual interactions you have had that are relevant to the writing assignment at hand.

With respect to competence, students must be made to feel as if they are capable of developing as writers and of meeting the teacher’s expectations. All feedback focused on competence should communicate that students have the ability to be successful. Strategies that work here include focusing on strong sections of a draft (not merely those that need improvement) and referencing past successes, especially those relevant to the current assignment. With respect to autonomy, the teacher is sending the message that the student is capable of bringing about positive changes due to his or her own work. Feedback that promotes autonomy should suggest concrete, practical ways that the student may improve not only on a particular assignment but overall as a writer. Think of it as a plan for success.

In short, the content of the feedback should communicate the messages that the teacher cares about the student, that the student is capable of being successful as a writer, and that the teacher is willing to help map a path the student may follow to that success.

Then there is the issue of the vehicles used to deliver this feedback. In the modern era student writing is often submitted digitally, and feedback may be delivered in the same way. In considering which digital tools are appropriate, it is helpful to distinguish among three different types of errors, with their corresponding feedback.

There are generally three headings under which written errors will fall. The first of these is mechanical errors. Mechanical errors include misspelled words (or misused homonyms that have been spelled correctly and thus not caught by a spell-checker), grammatical errors (e.g., subject/verb agreement), and punctuation errors. Though attending to mechanical corrections is certainly important, they may be the category of errors least likely to be consistently and painstakingly addressed as students revise. From the perspective of the teacher/editor, errors of this type are usually noted without the use of lengthy commentary. A word processing “track changes” feature
appears best suited for this type of error (particularly if the file is sent back to the student in PDF format to obviate students’ simply accepting a teacher’s corrections without reviewing them).

A second category of written errors refers to the structure of ideas within a particular paragraph. We term this category micro-level content errors. Such errors require active rewriting on the student’s part, based on constructive comments from the teacher. This requires lengthier feedback than for mechanical errors, and such feedback appears best presented using a word processing “insert comments” feature.

The third and final category of written errors includes problems that detract from the manuscript as a whole. We term these errors macro-level content errors. Examples include faulty document structure and erroneous reasoning. These errors also require active rewriting based on teacher feedback, but in addition may require that the writer think about the document as a whole and possibly reorganize or rewrite multiple sections simultaneously. Feedback provided in this category is at once both the most complex feedback an instructor/editor may provide and the most difficult for the student to apply constructively. Digitized audio feedback appears to be the preferred method for providing this type of commentary; fortunately, it can be created using commonly available tools and attached to a student’s digitized document file.

An initial trial in this context found that students who received digitized audio feedback expressed higher perceptions of competence, intrinsic motivation, and autonomy, and experienced an improvement in overall writing abilities, compared with those students who received more conventional feedback (Harper, 2009).

Effective feedback need not necessarily be overly critical, complex, or lengthy, but should instead equip students with the means by which they may take responsibility for their learning. By considering not only what they will say but how they should say it, teachers can assure that their efforts to promote the development of students’ writing skills will not be in vain.

Reference
Harper, B. (2009). “I’ve never seen or heard it this way!”: Increasing student engagement through the use of technology-enhanced feedback. Teaching Educational Psychology, 5 (1)

Brian Harper is an associate professor in the Department of Curriculum and Instruction at Cleveland State University. William Beasley is a professor and chair in the same department.

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Reasons Why Students Do or Don’t Participate

By Maryellen Weimer, Ph.D., Professor Emerita of Teaching and Learning, Penn State Berks

Here’s something many scholars no longer even attempt: a multidisciplinary review of the literature, in this case on in-class participation. Author Kelly A. Rocca looked at articles on the topic published in academic journals between 1958 and 2009. The seven-page bibliography at the end of the review contains references that include empirical studies, reports by instructors of their experiences using a particular kind of participation policy (some with data, some without), advice-giving articles, other literature reviews, and miscellaneous reports. It’s an impressive collection, which is a credit to the author and attests to the amount of work done on this instructional practice.

Based on this literature review, Rocca identifies five factors that influence whether or not a student decides to participate in class. What follows here is an abbreviated discussion of each.

Logistics—principally class size. There is a good bit of research documenting that students are more willing to participate, less anxious about participating, and less able to hide in smaller classes. Some of the literature reviewed proposes ways that participation can be encouraged in larger classes. Also discussed here are the implications of various policies on participation, with the bottom line being this: If participation counts in the grading scheme, students are motivated to contribute more often.

Confidence and classroom apprehension—Some students do not participate because they feel intimidated by their fellow classmates and by the instructor. This is particularly a problem in classrooms where a small percentage of the students are doing most of the participation. Unfortunately, that describes participation in many classrooms, according to a number of different studies. Sometimes students begin to participate once they feel comfortable with their classmates. Participation is also more likely when students are prepared, which can be encouraged by having them bring written answers to class or by talking about possible answers with a classmate before offering an answer to the whole class.

Personality traits—There is some evidence that traits like low self-esteem and a lack of assertiveness negatively influence the willingness to participate.

Instructor and classroom climate—Not surprising, instructors play an important role in participation decisions. The instructor behaviors that discourage participation include: not paying attention to students, making fun of them or putting them down, being overly critical, using lots of sarcasm, being overly opinionated, and being moody and unfriendly. Instructors also play an important role in creation of the overall climate that exists within the classroom. If it is a climate where students and the teacher respect each other and where teachers communicate care and concern for students, that positively impacts how comfortable students feel, which adds to their confidence and increases participation. There’s lots of advice in the literature on creating these
kinds of classroom climates, such as knowing students’ names, providing verbal and nonverbal feedback, and being a good listener. Even something as simple as making sure there is sufficient “wait time” after asking a question can build a climate that encourages participation.

**Sex differences**—In the early ’80s there was some evidence that women were participating less in classrooms than men. Subsequent research explored a variety of gender conditions, including the teacher’s gender and whether the majority of students in the class were the same or a different sex than the teacher. Results were mixed, but more recent research has found little evidence supportive of a “chilly classroom climate” for women students.

The literature reviewed here makes it clear that a student’s decision to participate is not a simple one but is instead determined by a confluence of factors. Some of those factors are beyond a teacher’s ability to control, but many are not, and the literature referenced in this review offers much in the way of relevant research, ideas, and advice to those interested in promoting classroom participation.


This article originally appeared in the newsletter *The Teaching Professor, 25.5* (2011); 2, 3.

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**Encouraging Online Learner Participation**

*By Joan Thormann, Ph.D., professor in the Division of Educational Technology, Lesley University*

Sustained, high-quality student participation usually doesn’t happen on its own in the online learning environment. The instructor needs to model participation, create assignments that encourage it, and foster an environment that supports it. Here are some ways that I promote student participation in my online courses.

**Use discussions as assignments.** Rather than assigning an overall participation grade, I treat each one-to-two-week discussion as an assignment. The discussion assignment is typically tied to an independent assignment. For the discussion portion, each student reviews the work of one or two classmates and is required to post comments and/or questions. The independent assignment is worth 20 points and the associated discussion assignment is worth 10 points.

I find that students do not necessarily need much preparation to interact in these discussion forums after I model participation for them. I post substantive comments, and in my modeling I never have yes or no questions.
Create informal conversation spaces. The assignment and discussion forums are not the only forums in my courses. I have two other forums: The Coffee Shop and The Teacher’s Room. The Coffee Shop is for students to engage with each other on topics other than the content of the course, which helps build community and makes students feel comfortable with each other. The personal relationships built there can carry over into the content-related forums, and I think this informal space helps make posting in all forums feel safer.

The Teacher’s Room is for administrative issues and questions and comments about current and past assignments. I advise students to check this forum regularly for important information, and I encourage students to answer each other’s questions there. Sometimes students will post additional resources or they’ll bring up issues that aren’t necessarily related to the current week, but they add to the learning experience.

Encourage and recognize go-getters. In each course there are typically two to four students (out of 15) who are real go-getters. They help set the tone of the course and can be very helpful in getting others to participate. I’ll encourage their participation by sending them private emails saying something like “I really like what you had to say about …. Thanks for contributing.” I’ll also recognize them publicly through an announcement in The Teacher’s Room or an email to the entire class when I feel that a student has made an insightful comment about the course content.

Use student moderators. After I have moderated the discussion forum for three or four assignments, I turn moderating duties over to the students so that they become facilitators of the conversation, which creates a positive learning environment in terms of power-sharing, involvement, and ownership of the course.

Students can select which forum topic and week they would like to moderate on a first-come, first-served basis. The responsibilities are described in the instructions, and a week before they are to moderate I send out a reminder about their responsibilities, which include:

- Focusing the discussion on course content
- Encouraging new ideas
- Initiating further discussion through questions or observations
- Finding and communicating unifying threads
- Drawing attention to opposing perspectives
- Summarizing and posting a report about the discussion

I let the student moderators take the lead. I do not participate until the latter part of the week’s assignment, but I do participate because it’s important that the students don’t feel abandoned by the instructor, particularly when the discussion is facilitated by a student who may not be very confident in the role.

An interesting dynamic occurs when students moderate. Students who either have moderated already or who will moderate in the future are very supportive because they’ve been in the hot seat or will be there soon.
Another wonderful quality of having student moderators is that they bring a different perspective to the course. I look at the content in a certain way. Student moderators—especially good ones—will often look at the content from a different perspective. They will raise topics that I would never have thought of talking about. They bring in different ideas—some do extra research to make sure they are well informed—and the conversation often goes off in impressive directions.

Students are usually quite positive about the moderating experience. When I survey my students, they typically say that moderating deepens their understanding of the content, that they enjoy taking on a leadership role, and that they see the benefit of having others’ viewpoints brought to the forefront.

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Alternative Assessment Methods for the Online Classroom

By Rob Kelly

Tests and quizzes are often the primary means of assessing online learner performance; however, as Rena Palloff and Keith Pratt, online instructors and coauthors of numerous online learning books, including Lessons from the Virtual Classroom: The Realities of Online Teaching (2013), point out, there are more effective and less problematic alternatives.

They cite three significant drawbacks of test and quizzes:

- Test and quizzes typically assess low-level learning. “They address only some of the lower levels of Bloom’s Taxonomy, often sticking to the knowledge level. [Tests and quizzes] measure how much information students have memorized and then can spit back out on an exam. Most test questions are not designed to allow students to engage in really critical thinking or analysis or synthesis of materials,” Palloff says.

- Tests and quizzes often are not aligned with the learning objectives or pedagogies of the course. “When you’re having students do more authentic activities or application activities, you’re working at the higher levels of Bloom’s Taxonomy—synthesis or evaluation—but then you’re measuring the lowest level—the knowledge level—by using a test or quiz,” Palloff and Pratt say.

This misalignment issue arose in an online course Palloff and Pratt taught together. The course was primarily discussion based. They had students do things such as discuss news articles that illustrated concepts in the course. “The discussion activities were really robust,
very practical, very applied, and authentic. And then they were given a final exam out of the blue that we did not write, and all the students failed. It was a picky final exam with true-false and multiple-choice questions. Every student failed because that was not the way the course was taught. They were taught to think at much higher levels, and they went into this final exam that was all about rote memorization of stuff from the textbook. … It wasn’t a good way to measure how they were actually doing in the course,” Palloff and Pratt say.

- Overuse of test and quizzes can promote cheating. Several studies have shown that when tests and quizzes are the primary means of assessment, students cheat more than they would if they engaged in a more authentic activity, Palloff says.

**Authentic, learner-centered, collaborative assessment alternatives**

Alternative assessment methods such as writing assignments, collaborative assignments, case studies, and debates can avoid the problems often associated with tests and quizzes. “There are many ways to approach assessment. It depends on the context of the course. When we teach faculty how to teach online, we try to give them a taste of a majority of those methods. I don’t know that we can cover all of them in one course, but there are multiple ways to get at the issues and make this a real-life situation for the students so they can actually learn from the process,” Pratt says.

Palloff and Pratt recommend selecting assessment methods that are learner-centered and authentic.

Learner-centered assessment methods address whether the learner has met the learning outcomes of the course as well as how the learner got there. “A learner-centered assessment is an assessment that links what the student is learning in the course to the assessment process,” Palloff says.

Authentic assessment methods can reduce cheating. One way to make assignments more authentic and less susceptible to cheating is to have students embed their own experiences in their assignments. “For example, if they are writing about human development, you can have them write about their own development. They’re writing about themselves, and that is very difficult to buy through a paper mill or to plagiarize,” Palloff says.

Mobile technology is one way to incorporate authentic assessment into a course. For example, one of Pratt’s doctoral students uses mobile phones in a 12th-grade calculus course he teaches. Students record themselves working on problems. “This allows them to move around. They can get creative. It challenges them to do a multitude of things on different levels and they’re learning calculus in the process,” Pratt says.

Palloff also uses mobile technology for authentic assignments. As part of a final project in a community health care course, she has students prepare a brief proposal to their communities about the development of a particular health service. Students then go out and interview community
members and record the interviews using cell phones. “There are lots of ways to use the technologies that are available to us to enhance those kinds of products. Students can then post those online so that other students can see them and give them feedback in addition to the instructor’s evaluation,” Palloff says.

When students do collaborative assignments, they should be assessed collaboratively, Palloff and Pratt say. Collaborative assessment is a combination of students assessing themselves and one another and the instructor taking that input and doing the final assessment. In addition to providing a basis for a grade, these collaborative assessments provide useful insights on what worked and what didn’t work on an assignment, which Palloff and Pratt debrief with students so that they can reflect on what they might do differently the next time.

**Appropriate uses of tests and quizzes**

When used sparingly and properly designed, tests and quizzes can be useful assessment methods, Palloff and Pratt say.

Rather than relying on anti-cheating technologies or proctors, they recommend using open-book tests and quizzes “because students are going to have their text material available, and if they are working online they can look things up on Google,” Palloff says. “There are all kinds of ways that they can gather information, and, the truth is, in the real world if the student comes up against a problem or an issue that they don’t have the answer to, they’re going to look it up or ask someone. So if you construct your tests and quizzes that way you’re actually teaching students some skills that they’re going to use when they get out of school.”

The questions in an open-book test or quiz need to be complex and require students to know the material and know where to look if they are uncertain about something. When open-book tests or quizzes are well designed, students who don’t do the work will not be able to do well on them even with an open book.

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**Cumulative Finals:**

**There’s Good Reasons to Give Them**

*By Maryellen Weimer, Ph.D., Professor Emerita of Teaching and Learning, Penn State Berks*

Finals that cover all the material presented in the course are decidedly unpopular with students. They much prefer exams that include one chunk of content at a time. But there are good reasons to make finals comprehensive. Consider these results from a recent study of psychology students.
The research team was interested in the short- and long-term effects of cumulative finals. To determine the short-term effects, they asked this straightforward research question: “Do students who have a cumulative final at the end of the semester score higher on a measure of class content knowledge than students who do not have a cumulative semester final?” (p. 176) To answer this question, they tested students’ content knowledge in six different core psychology courses that included 13 sections of introductory psych and 25 sections of upper-division courses. The content exams used in the study were part of what the department uses as quantitative evidence of teaching effectiveness “to measure if students are retaining the most important material taught in our course by their instructors.” (p. 177) The content exams were not part of the final and not included in the student’s course grade. They were administered at the end of the course.

The finding: “[C]lasses taking cumulative finals performed reliably better than classes who had noncumulative finals.” (p. 177) The mean score on the content exam in the introductory psych sections with a cumulative final was 76.66 (SD 4.01) compared to a 63.26 mean score (SD 6.82) in the sections without a comprehensive final. In the upper-division sections with a cumulative final, the mean score was 82.60 (SD 4.54) compared to a 72.19 mean score (SD 10.55) in those sections without a cumulative final.

As for the long-term effects, the researchers measured retention of course material up to three semesters after having taken the course. They had former students take online content exams for courses taken one, two, and three semesters previously. Given that these psychology majors had repeated exposure to course content, the effect of the cumulative exam was smaller, but it held for all three of the time periods. The researchers offer this general conclusion: “Regardless of type of course, students with cumulative finals did better on departmental content tests than students in courses with noncumulative exams. ...” (p. 180)

“As a result of these findings, we believe using cumulative finals improves student learning, and we encourage instructors to utilize cumulative finals in their courses.” The recommendation is justified by another interesting finding: “[E]ven in our optimal study condition (immediate content exam administration in upper-division courses with cumulative finals) students only answered 82% of the content exam items correctly. In the worst condition (18 month time lag for introductory psychology courses with noncumulative finals), students retained just over half of the important information from introductory psychology.” (p. 180)

Many instructors worry about using pedagogical methods unpopular with students. But good educational experiences aren’t always about what students like. Most things are not learned well without hard work. This study did only involve psychology majors, but data were collected from multiple sections and analyzed appropriately. Moreover, this isn’t the first or only study that supports the effectiveness of comprehensive finals when the issue is content retention. See another article in this issue that proposes ways of helping students better prepare for comprehensive finals.

This article originally appeared in the newsletter *The Teaching Professor*, 27.7 (2013); 2.
## Additional Resources

Here is a collection of resources for a deeper look at specific methods to support learning outcomes.

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<th>20 Minute Programs</th>
<th>How Can I Use Discussion to Facilitate Learning?</th>
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<td>Uncover methods to structure and plan classroom discussions to maximize student engagement, student participation, and learning.</td>
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<td>Learn how you can transform exams into enhanced opportunities for student learning with practical solutions to the three core problems with exams today.</td>
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<td>Discover techniques you can use to increase student responsibility and establish a learning-centered environment in your next course.</td>
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<td>Learn multiple feedback strategies that can grab students’ attention, help them learn from their mistakes, and upgrade your online feedback, making it more specific, timely, and effective.</td>
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