# Designing and Teaching Online Courses

## Bainbridge State College

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## Contents

# Designing and Teaching Online Courses

In case you do not already know it, teaching online is different from teaching in the traditional classroom. You cannot just take what you do in a face-to-face (f2f) class and "put it online." In fact, because online learning is so different from traditional classroom learning, the online learning revolution has forced us to look more closely at how courses are constructed and how students learn. Ultimately, this forced self-reflection of sorts will hopefully result in better instruction in classrooms of both the concrete and online kind.

Designing an online course is independent of the Learning Management System (LMS) you are using. We call our LMS GeorgiaVIEW. A well-designed course can be translated into any LMS. So it is best not to think about your course from the perspective of what you know how to do in the LMS. If your knowledge of GeorgiaVIEW is currently limited, that does not mean you cannot design a great course. You design first for learning; then you find out how to make the LMS do what you need for it to do.

## Why careful design is necessary

"Winging it," that is, teaching without much of a plan, is much easier in a traditional course than it is online. You can use classroom discussion and other activities off the top of your head to get by (though obviously, this is not ideal), and your dynamic personality or lecture skills might keep students engaged. But a fly-by-the-seat-of-your-pants approach in an online course is a recipe for disaster. Online courses must be carefully designed for **learning and engagement**. Otherwise, students get lost and ultimately do not learn. This kind of design typically takes time to do well and cannot be accomplished on the fly, week-to-week. The good news is

***"The teacher still matters very much, but good online instruction is dependent on the design of the course and not just the stellar personality of the instructor."***

that once you have invested in course design, the process of tweaking and improving the course semester-to-semester will take much less time.

This guide provides you with methods for creating an effective online course. The principles described here are based on current "best practices" in course design, but within certain parameters, there is plenty of room for creative design and constructing a course the way you believe it needs to be.

## The instructor's role

Teaching is no longer just about disseminating information. For one thing, most information about everything there is to know is readily available to anyone with a connection to the Internet. You can even find free, effective videos and animations that explain some of the more complex concepts taught in college classrooms. If you have never done this, try it now: "Google" a concept from one of your courses. Most likely, you can find a definition, an easy-to-understand explanation, and examples in a matter of minutes or even seconds.

So what is the value of a college course if the world of knowledge is readily available online, for free? The answer is that an online course is carefully designed for learning—not just presenting information—and that students in an online course have an active instructor. They are not on their own.

If presenting content was all that was needed—in other words, a self-paced, self-regulated course—then we are doing a disservice to students and taxpayers. It would be much more efficient to hire a team of instructional designers to build the courses and then pay administrative assistants to monitor courses and report grades. (See footnote 1 about self-paced courses.) But this is not what it takes to provide meaningful online learning. Instructors facilitate learning through careful construction of courses—**a matter of how courses are designed**—*and* intentional interactions with students—**a matter of what instructors actually do** during the progress of a course. The instructor still matters very much, but good online instruction is dependent on the design of the course and not just the stellar personality of the instructor. In this guide, therefore, we will look first at designing courses for learning and later at what instructors need to do in an online course to help students learn.

## Designing with the end in mind

How do you know your students are going to learn what they need to learn if you do not make specific plans for it? Just handing them the content is not enough.

If I am going to teach a child to play baseball, I would not start with a history of the game. Although the history is an interesting and valid topic, it is not relevant to my goals. What exactly does the kid need to know, and what skills does he need to develop in order to play baseball? Without really thinking about it, I organize my teaching/coaching with the end results in mind: catching, throwing, and batting skills; knowledge of the rules of the game and what you need to do in which situation. (And by the way, I would be constantly getting him to practice, assessing how he is doing, and providing frequent feedback on his performance—something described later that is missing in many classrooms.) If there is time, I may tell stories and share information about the history of the game. But because the history of baseball is not central to what the kid needs to learn, it would not be a part of my "curriculum."

While planning specifically for what you want students to be able to do after a course may seem obvious, it is often not the way faculty do it. Many instructors lay out a course based on a list of topics or chapters of a textbook. Building your course this way—merely from a list of topics that ensures you are "covering the content"—can lead you to course activities that do not get students to the real desired outcomes and can lead you to miss important outcomes entirely. Furthermore, if you do not specifically think through what it is students should be able to do for each part of your course, you are likely to miss constructing learning experiences that help students learn what they need to.

Back to the baseball analogy. It is obvious what skills and knowledge are needed to play the game well, and coaches focus on those things naturally. But in your academic class, those outcomes are not always so obvious. A list of topics is not the same as knowing exactly what students should be able to do at the end of the

course or after each module. You need to deliberately think through these outcomes. This process is at the heart of designing an effective course.

### So how do you design with the end in mind?

You start your course design with a detailed examination of what students need to know, understand, and/or be able to do as a result of the course and each part of the course. You probably think you already know this, and you might, but it is quite possible that what you know is a set of topics that you will cover in your course. Good course design takes us away from the "I got it covered" approach with an emphasis on what the instructor does (delivering content) to a more learner-centered approach with an emphasis on what students will learn. The distinction may seem subtle or even meaningless to you in theoretical terms, but it can have a profound effect on how you actually build a course.

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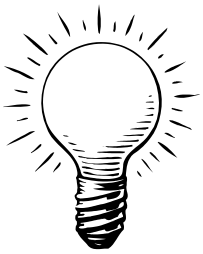
The process starts with an examination of the broader goals of the course. These goals may come from accrediting agency requirements that specify student learning outcomes for a program (nursing, for example, has very specific outcomes), or they may come from a collaborative agreement among instructors of the same course at our college. Or, you may be the only one developing the major goals for a course. However these broad goals are set, this is just the beginning.



### What's the Big Idea?

Before getting down to more specific outcomes, some suggest you should first consider the "big ideas" of your course. Smith (2008) calls this "teaching for the long term." What enduring knowledge or skills do you hope will persist with your students? A year or two or 20 from now, what do you wish your students still knew or were able to do? They are not likely to remember the textbook definition of some term, but they could still understand the general idea behind

the theories that drive your discipline or how to think critically about issues in your field.

These big ideas need to be pervasive in your course. For instance, in science courses, faculty typically want students to be able to evaluate the validity of research in order to interpret research claims they come across, so this is often one of the big ideas of a science course. You may have a particular lesson that conveys this as a skill (a lesson on the scientific process, for instance), but if this is one of the big ideas of your course, you would not depend just on that single lesson. You would scatter opportunities to exercise and refine that skill throughout your course. When you identify those big ideas very deliberately, you are better prepared to provide learning opportunities for them in your course. Remember, you are trying to ensure your students will retain this knowledge or skill years from now.

For many instructors, these big ideas are obvious and easily documented; for others, it may take a more thoughtful review of the major themes and ideas of your discipline and what is important for students to remember long term. It is highly recommended that you brainstorm and review those ideas with colleagues in your field.

Some of the big ideas might be encapsulated in the major goals of your course already written. You can add big ideas as part of your broad course goals list or create a separate list just for them. Once created, you review this list often as you are building your course as well as after your course is complete. Have you infused the ideas frequently enough and meaningfully enough throughout the course? (See Wiggins' What's a big idea for help developing big ideas.)

### Why you must be specific

The broader goals and big ideas for a course provide instructors with direction for what should be taught in the course and allow for easy evaluation of programs across the college. But these course goals must be broken down into more specific outcomes for each unit or module within a course in order to provide you, the course designer, with a clear path as you create your course. You may or may not have already done this, and even if you have, it is important to be sure your student learning outcomes are written appropriately because of their importance in guiding the development of your entire course.

It is not about having well-written outcomes for the sake of having them. The little league coach knows exactly what a beginning player needs to be able to do to play the game. You, too, need the same kind of certainty about what students should be able to do after completing your course.

### The rest of the idea for creating your course

The basic idea of this approach is quite simple and is summarized in the three-step, "backward design" process (Wiggins & McTighe, 1998). Start with the desired results—those learning outcomes; then determine what is acceptable evidence that a student has learned those outcomes—how you will know they have learned (how will you assess them); then, after you know what students need to know and how you will assess that learning, you plan the learning experiences that will help students learn and be able to demonstrate their learning. **This process helps assure that everything you do in your course is geared toward helping students achieve the desired outcomes.**

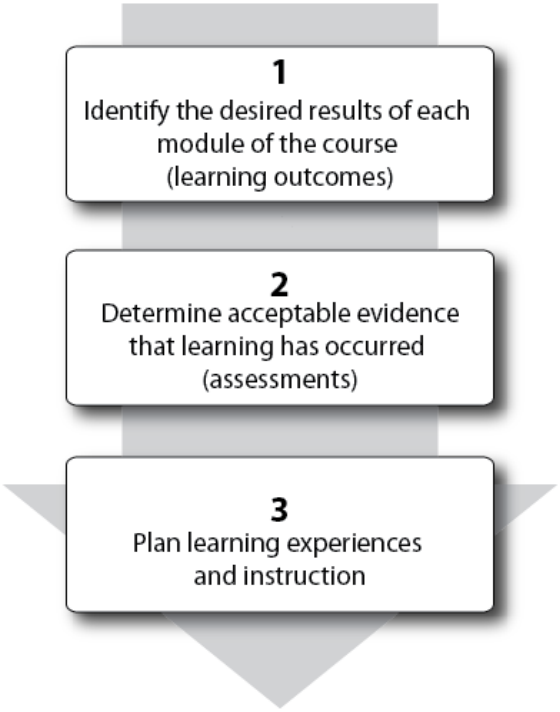
General course outcomes are developed and agreed upon by college faculty for all courses. If you do not know what these outcomes are for your courses, contact your Dean. Or you may want to work with your colleagues to revise outcomes to better reflect what is important in your class.

Often, instructors do it the other way around: they start with a list of topics to be covered (often from a textbook); then they compile a set of teaching resources, such as lectures, videos, and handouts to teach those main topics; then, almost as an afterthought, they develop assessments to provide grades. When you wait to create the assessments after teaching, you are potentially missing important learning opportunities. For instance, have you ever written a test that asks for students to apply a concept without giving them learning experiences that do the same thing? If so, you are setting your students up for failure. Have you ever created a test and realized you forgot to "cover" an important concept? If so, you have failed your students in that unit.

The **backward design** model helps you avoid those kinds of errors and focuses everything you do on achieving your outcomes. When you first know exactly what students need to learn and exactly how you will assess that learning (that is, how will you know students learned?), you are better equipped to then develop learning activities that will help students achieve those learning goals. **By putting**

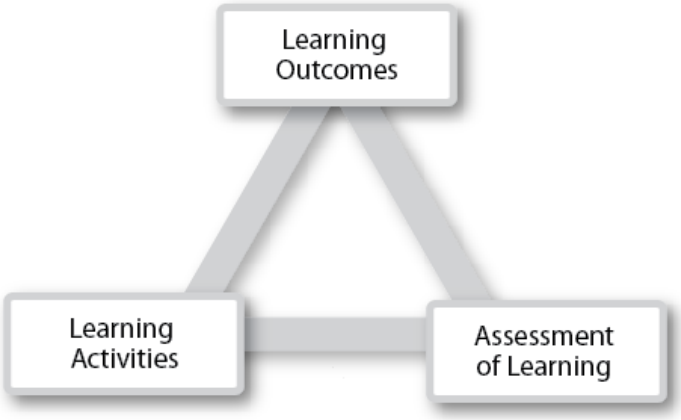
**assessment before creating learning activities, you are equipping yourself to plan and create better, more useful learning experiences.**

If you think this through, it makes perfect sense, and is even self-evident. "I want students to learn X, and I will know they have learned X if they can do Y (my assessment); so what is the best way to ensure they can do Y (my teaching/learning strategies)? Constructing your course this way helps ensure the course is built for learning and not just presenting information. The strategy is summarized in this simple three-step chart.




**In this approach, assessment is what drives what we do, not covering the content.** In other words, we are preparing students to be able to show us what they know or can do on our assessments, and these assessments are clearly aligned with the outcomes we want students to achieve. Likewise, the learning experiences/activities we plan are designed to prepare students to perform on the assessments. If instead you start with learning activities, you may be having students learn things that will not be assessed or having them prepare improperly for what they actually need to know. So the "teaching" part—how content is delivered and how students will learn—is developed only after we are certain of the learning outcomes we want and how we will assess that learning.

This may seem obvious to you, but if you have designed a course without thinking through your learning outcomes in a very deliberate way and how they are connected to your assessments and learning activities, you almost certainly have spent course time on things that do not matter much and have not provided sufficient learning experiences for some things that do. And your assessments may not be measuring what you really want students to know or be able to do. This process helps you avoid that problem. The alignment of objectives, assessments, and learning activities is often referred to in educational literature as the "magic triangle."




That is, learning outcomes are clear and specific, and are aligned with assessment and learning activities. Each supports the other and completes the learning cycle. Again, on the face of it, this might seem rather obvious and not terribly useful. **But it is the *process* of making sure these all align—rather than just the recognition of the principle—that makes this a valuable concept.** Working through this alignment ensures that course goals are met and that what happens in a course is actually purposeful and achieves the learning goals you have for your students.

When you are finished with all three components of planning your course, you will have a document—we'll call it a course map (here is a blank one)—that lists not only the major goals and big ideas of your course but also individual, specific learning outcomes, how they will be assessed, and the learning activities designed to help students achieve the outcomes. Each module will look something like this:

| **Module** | **Learning Outcome** (Backward Design Step 1) | **Assessment(s)** (Backward Design Step 2) | **Learning Activities** (Backward Design Step 3) |
|---|---|---|---|
| Week 3 | Students will be able to identify major indicators of autism when presented with cases | 1. Recall the indicators on three test questions<br>2. Correctly identify autism diagnosis by completing three case study analyses of children. | 1. Read Chapter 9 of text.<br>2. Provide at least five case studies as self-assessments to practice identifying the indicators.<br>3. Provide case study in discussion area for small groups to analyze together.<br>4. Provide autism video from LifeWorks (optional) |

Let's now look more closely at developing all three components of your course design.

## Developing Student Learning Outcomes

You have your broad goals and big ideas. Now it is time to get down to specific outcomes. For example, take this broad course goal from Introduction to Business: "Demonstrate an understanding of the marketing process and consumer behavior." This is OK as a course-level goal, but it is hardly specific enough to guide the module(s) in which those concepts are taught. How will students demonstrate an understanding, and what specific processes and consumer behaviors are we talking about? They need to be developed and clarified in order to guide the development of the module.

Ask yourself, "What do I want my students be able to do, or how will they be different after this module?" (Gagne and Briggs, 1974). The answer to that question will lead to not only a better written learning outcome, but more importantly, it will guide you as you develop your assessment and learning activities. And that is the whole point. In this business example, is it sufficient that a student list the major market processes by name? Probably not. More likely, business instructors want students to be able to name the processes, yes, but also to be able to identify which process is affecting a business, given certain characteristics, or to choose a business direction based on recognition of a market process. By recognizing that you want students to do more than list the principles in this case, you see that you need to provide learning experiences that teach those higher level skills and also how you will discover whether or not they have achieved them in your assessments. Without the intentional development of the learning outcome, you may have missed this important distinction.

Ask yourself, "What do I want my students be able to do, or how will they be different after this module?"

Another benefit of writing these specific learning outcomes is that when your course is shared with other instructors—especially with part-time instructors—those instructors get a better idea of what they are trying to achieve in each module and the course as a whole.

Let's take another example, this one from psychology: "Demonstrate a basic understanding of lifespan development." This is a very broad course goal, not an outcome, and so it is not specific enough to provide guidance in constructing assessments or learning activities. How will students demonstrate an understanding? What would they be able to do to demonstrate that understanding? What parts of lifespan development will your module address? Your **learning outcomes should be detailed enough that they give you direction in developing your assessments and learning activities**. Again, the point is not to just create nice outcomes that our Institutional Effectiveness director will like; it is to have them in order to guide you in the rest of your course design.

> *I'm confused about all these outcomes, objectives, and goals.*
> Discussion of outcomes can be a little confusing because of the different ways some terms are used. The term "learning objectives" has sometimes been used to refer to the list of topics covered rather than behavioral outcomes. To put the emphasis back on what students will actually be able to do, we prefer "learning outcomes" or "student learning outcomes" to differentiate between topics and student behavior.
>
> And there is also the matter of levels of outcomes. We sometimes refer to program-level outcomes—outcomes for an entire program such as business management, for example—as well as college-wide outcomes, such as our gen ed outcomes. In all cases, the outcomes are defining what students will be able to do, whether on the level of an entire degree, a program, a course, or a module within a course. So when discussing outcomes, we just need to be clear about which level we are referring to.

### Writing the outcomes

When you state the learning outcomes more specifically by saying exactly what you want students to be able to do, you have taken a huge step toward designing the assessments and learning activities for your course. In the example above, do I want them to just be able to list the primary developmental characteristics, or do I want them to recognize how a particular developmental issue can interfere with a person's functioning? If it is the latter, then I will specify this goal with my

learning outcome: "Given a written description of a person at each major stage of development, the student will recognize the developmental issues and suggest solutions." With this learning outcome, I have specified what students will be able to do and provided myself with a clear direction for how I will assess their ability to do this and what learning experiences I need to provide them to get them there.

To achieve this, your learning outcomes should be stated in measurable and observable terms. What should students be able to do? "Students will ***understand***...." is not observable or measurable as stated. Instead, use action verbs to describe what they will be able to do. "Students will be able to define biotic and abiotic factors." This statement presents the outcome in a way that can be measured—whether or not a student can provide the definition of the terms. And this, in turn, helps you with developing appropriate assessments and learning activities.

> The learning outcomes for your online course should match exactly those of a f2f version. The assessments and teaching/learning activities may differ, however, because of the difference in course delivery, but the learning outcomes should be exactly the same.

In this example, note the low level of reasoning involved. It might be the case that this simple recall—defining the terms—is indeed the desired outcome, but it might be that the instructor really wants students to be able to recognize and distinguish between types when presented with examples. If this is the case, then the learning outcome should be written that way: "Students will distinguish between biotic and abiotic factors when presented with examples**."** This behavioral objective now gives the instructor a clear direction for developing the assessment as well as the learning activities necessary to get students to a level where they can achieve this outcome. That's the whole point!

To summarize, at a minimum, learning outcomes should

- Describe what students will be able to do as a result of the learning experience.
- Be specific and clear.
- Be measurable/observable.
- Be stated at the appropriate level of reasoning.

See Appendix A for more about writing and determining the appropriate level of reasoning for your outcomes.

### It's not just for skills

Writing measurable, behavioral learning outcomes to some may seem like a good method for developing skill-based courses, such as math or nursing, and it certainly is, but it also makes sense for more "content" oriented courses like literature, history, or sociology. Many of the concepts taught in such courses are sometimes not thought of as skills per se, but if you write your learning outcomes as observable outcomes, you will find that your course development is more robust and better achieves the student outcomes you really want.

For instance, take this general course outcome from a literature course: "Read critically with a purpose." That is fine as a general goal but is not observable or easily measured enough as written to be a learning outcome that will guide you in course development. It could probably be broken down into several outcomes such as:

- Students will differentiate between writer opinion and referenced, factual sources in assigned readings.
- Students will identify and describe the major theme(s) in assigned short stories.
- Students will recognize and identify false analogies in provided text.

These outcomes are not only more directly measurable, but they more clearly guide the course designer in developing the specific assessments needed to show them that students have mastered the outcome as well as the learning activities needed to get them there. And once again, that's the point. When you have thought through exactly what you want students to be able to do, then you are better prepared to create assessments and learning activities to get them there. Is this more work than just listing the topics you will "cover" in your course? You bet it is. But the payoff is worth the effort because you have a clear roadmap for how you need to design your course.

This approach also shifts the focus from teaching to learning. Instead of focusing primarily on a list of topics to be taught, you are focusing on what students will learn. Again, the distinction may seem small, but it greatly affects how you build a course.

### Design for the thinking you want students to do

One final consideration for developing your student learning outcomes is to be sure that they are written for the thinking you want students to do. Ultimately, you

do not want students to just be able to recite facts and figures after taking your class (though some of that may be important). Research on cognitive development makes clear that merely acquiring some knowledge—those facts and figures—does not automatically transfer to situations where students (or later as functioning adult citizens) have to make evaluations, choices, and decisions in real life (National Research Council, 2000). To put it another way, in any discipline there is *content,* and then there is *process*. The process component of educating students is often ignored in course design.

Schoenfeld (1987) wrote about a national test on which secondary students were posed this question: "*An army bus holds 36 soldiers. If 1128 soldiers are being bused to their training site, how many buses are needed?*" Forty-eight percent of students got the answer wrong, but most interesting was the 29% who answered, "31 remainder 12." They did the actual computation correctly by dividing the right numbers, but failed to see that they did not actually answer the question. An answer with a remainder of 12 does not answer the question of how many buses are needed (because a fraction of a bus is not practical!). The question was not to divide two numbers, but to decide how many buses were needed. Whether or not those students could have eventually derived the right answer or not is not clear, but the point is, they were seeing the problem with a very limited, classroom mindset, rather than thinking through the problem to come up with how many buses were needed.

Nursing students need to be able to recognize symptoms and make choices about the next step—not to merely recite the seven signs of drug allergy reactions; math students need to recognize what mathematical principles apply to a situation and when to use them—not to just be able to use a particular formula; composition students should be able to determine what writing style is appropriate in a given situation—not to just write a grammatically error-free paragraph..

All of these examples depend on a student's basic knowledge (what are the symptoms of a drug allergy; what is the formula for the area of a triangle; what are the rules of grammar), but beyond that, you want students to be able to take that basic knowledge and use it in various ways. There is an abundance of literature on these higher-order thinking skills from Bloom's Taxonomy (Bloom, et. al., 1956) to Gagne's Intellectual skills (Gagné & Briggs, 1974) and many more. Whether

your class is preparing students for a particular job or just furthering their general education, the ability to think critically and use what you know to solve problems is the ultimate utility of a formal education. Because your outcomes guide you in everything you do in a course, it is very important that you write your outcomes to the appropriate level of thinking or skill you expect from students. Appendix A has more about writing your outcomes appropriately.

### Final thoughts about outcomes

After you have developed all the outcomes for your course, go back through the list and make a first attempt at organizing them by unit. You may discover that some outcomes fit together in ways you have not previously realized. After reviewing the outcomes, you may also discover that you have too many of them, or that some of them are not realistic or detailed enough or not written for the higher-level thinking you desire. Although you can certainly revise your outcomes at any time during the course design process, make one last attempt to review and refine them before proceeding.

## Assessment

Now that your outcomes are developed and somewhat organized, it is time to think about how you will know your students have achieved the outcomes. What would be acceptable evidence that students have mastered an outcome? Devising your assessments before developing learning activities helps ensure that you develop learning activities that will actually prepare students to do well on your assessments which are closely aligned with your learning outcomes. In other words, all course activity directly supports your learning outcomes.

As you develop your assessments, be sure to indicate them in your course map—lining up outcomes and assessments. This document helps you "see" your overall course at a glance and is equally useful to others who may teach your course in the future.

As described before, the typical approach to course development leaves assessment as an afterthought—something to be done after the "teaching" part of the course has been developed. But doing it this way leaves open the possibility for all kinds of misalignment between your desired learning outcomes, how

students will be assessed and how they will learn. By developing assessment before planning learning activities, you help keep all the parts of your course aligned with your learning outcomes.

Assessment is an opportunity for students to show you they have mastered the material; it is not a way for you to catch them not knowing. What evidence is needed to demonstrate that learning has occurred for each of your student learning outcomes? If you have developed good outcomes, you are halfway there in developing your assessments.

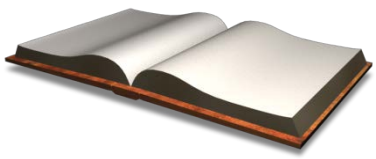
In most cases assessment should be frequent. That is, you and students alike need multiple opportunities to find out if they are achieving course outcomes. If you have few assessments, such as only having a midterm and a final, you may learn that students are not succeeding until it is too late. Frequent assessment provides you with data to intervene with students when necessary and lets students know they are off-track.

### Assess what you teach

Students tend to learn what they know will be assessed (Biggs, 1996). You probably know from your own experience as a student that it is frustrating to spend time learning something that never gets assessed. As a general rule, if it is important enough to ask students to spend time learning something, you should assess whether or not they have learned it. In most courses there is not enough time to waste on things that are not important enough to assess anyway. Of course, if your student learning outcomes and assessments are aligned, this is not an issue. You will already be assessing each outcome and not assessing anything that is not an outcome.

There are many ways to assess student learning, including quizzes, discussions, projects, and assignments of all sorts. Since the tool in our current GeorgiaVIEW calls all tests "quizzes," we will use that term to refer to any kind of test.

### Quizzes in online courses



You should assume every online quiz is open-book. There is no simple way to ensure that students are not consulting their textbook or other references when taking a quiz. So the way to combat that is to simply design your quizzes with the understanding that students are consulting the text or the Internet. Among other things, this means you do not ask for simple recall of information. "What is

step three of this process...." is easily found in the textbook, so this is not a good open-book question. And as it turns out, this kind of simple recall is not what most of us should be assessing, anyway.

Higher-order thinking questions work for these quizzes because it does not matter if the textbook is open. The answer is not there on the page. Students have to apply the concept to your question. A slightly more advanced version of the three steps question above would be to describe step three and let them choose which step you are describing or describe an example of the step and choose which example provided is an example of the step. Consider this example from health psychology:

> A 16-year-old female client with an eating disorder is an inpatient at a mental health clinic. A mutually agreed upon goal is for her to limit her amount of exercise to 1 hour per day and to consume at least 1000 calories per day for 1 week. This is an example of an interaction that occurs during which phase of the therapeutic relationship?
>
> a Orientation
> b Preparation
> c Working
> d Termination

This requires students to recognize the concept instead of just know the name and its place in the order. Again, it does not matter if they are looking at the list of steps in the textbook. What you are asking them to do is apply the steps. They have to understand the steps and reasoning behind them in order to do this.

As we have discussed earlier, getting students to apply knowledge is usually your goal in a course, anyway. So designing quizzes that assess this kind of higher order thinking is probably what you need to do. Of course, you will not be asking simple recall questions if they are not one of your learning outcomes. If your outcome calls for a higher-order application of knowledge, then that is naturally the kind of question you will be writing (assuming that a quiz is what you have determined is the best way to assess that outcome). If your outcomes do ask for simple recall of facts, that presents more of a challenge for online quizzes.

One way to approach this is to create timed quizzes. Quizzes that allow about one minute per question demand that students already know the content or at least know it well enough that they can find it in the textbook within a matter

of seconds. Most students who have not read the text and have a reasonable understanding of it will not be able to find the answer quickly enough to complete the quiz. Students usually understand this challenge after taking such a quiz, and they will (hopefully) read and understand the material before the next quiz.

Short, timed quizzes as described above are often promoted as a form of "low-stakes" assessment to encourage reading of course content. In other words, it is suggested by some that you have short, timed quizzes each week on the reading material as a way to encourage reading of course material. The "low stakes" mean that these quizzes should not count for much of the overall grade for the course since they are not directly assessing the learning outcomes you have set for the course. Ten percent is an often used maximum weight. This kind of quizzing also offers an opportunity to provide motivation for students. Most students will understand that they can make a good grade on these short quizzes if they simply read ahead of time. Any time students are successful, their motivation increases.

Quizzes that assess higher-order thinking, and therefore, will carry a higher weight in course grading, should be carefully designed. Open-ended essay-type questions do this most legitimately, but it is possible to ask multiple-choice questions that require application of knowledge. Consider this research methods question:

> *A researcher wants to determine if a moderate exercise program could help lower blood pressure in people suffering from high blood pressure. However, the researcher is concerned that subjects' blood pressure might just naturally lessen over time, and consequently, she would not be able to tell if it was the result of the exercise program or not. To more accurately determine if the exercise program and not just time is contributing to a reduction in blood pressure, the researcher should*
>
> *a. establish a control group*
> *b. extend the exercise program for a longer period of time*
> *c. periodically check to see if the subjects are following the exercise program*
> *d. compare the subjects to people without high blood pressure at the end of the study*

Students must understand the purpose behind the various research methods and the problem presented in the question in order to answer correctly (unless they make a lucky guess). They are not simply providing a definition or naming a step because they have to recognize the principle in question and understand its application.

These kinds of questions certainly take more time to write but are necessary if you will be using objective questions to assess higher-order thinking. Often, you can take a basic fact-based question you have already written and rework it into a more applied question. See Assessing More Than Facts for more help on this.

Of course, you could also write open-ended questions, which more genuinely assess thinking. For instance, the research question above, instead of being a multiple-choice question, could have ended with, "What could the researcher do to more accurately determine if the exercise program and not just time is contributing to a reduction in blood pressure?" The student is not presented with a list of choices but must recognize the problem and possible solutions without the benefit of the question prompts. This kind of questioning is more labor intensive for the instructor, of course, because you must grade each question manually, but it may be necessary, depending on your learning outcome.

Another advantage of this open-ended question is that it assesses students' understanding of the concept more genuinely. That is, in the real world, students will not be presented with four choices to choose from to solve a problem. They have to assess the situation and come up with a solution from nothing. That's the real world.

Would you rather have a neurosurgeon operating on you who answered a multiple choice question correctly about what step to take next in a brain surgery procedure or one who answered an open-ended question about what he or she should do next during a procedure? Clearly, the open-ended question assesses knowledge in a way that more accurately reflects the real world in which the surgeon would find themselves one day (and yes, of course, you would want a surgeon who has actually done the procedure rather than answers questions about it).

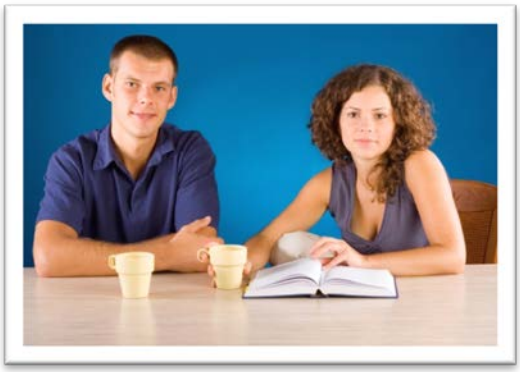
We call this kind of assessment "authentic assessment." You should employ as much authentic assessment as possible in your course. Authentic assessments not only replicate the situation for which you are preparing students more realistically than traditional tests, but they engage students more and even result in learning through the assessment (sometimes called "educative assessment").

## Authentic Assessments

There are two main ideas with authentic assessment. First, whenever you can get students to actually do the skill you are assessing rather than asking them questions about it, you are assessing their skill or knowledge more authentically (like the surgeon actually performing surgery). So rather than a composition instructor asking multiple choice questions about how to write a persuasive paragraph, the student is required to actually write one.

Second, whenever possible, attach the assessment to the real world to provide a meaningful reason and motivation for completing assessments. So an English instructor, for instance, has students write a persuasive argument to a local politician about something that matters to them rather than just a class paper. Economics students develop an analysis of local economic issues rather than using theoretical data or a far-off place they know nothing about.

Getting students to perform the actual skill being assessed is used fairly naturally in many subjects. Composition and math, for example, typically have students demonstrate their ability to use course concepts by writing or solving problems.



But skill performance and application to the real world can be applied to any subject. Sociology students can evaluate a real community problem using sociological theories to come up with a plan to address them or analyze a data set rather than just answer questions about how to analyze data. History students can conduct historical research or evaluate the validity of some historical conclusion. Statistics students can conduct real research on community issues by collecting data or analyzing existing data. Accounting students can analyze the true cost of production for a real company. Economics students can analyze national economic data for the last year or local business and unemployment data.

These kinds of assessments require students to apply concepts in an authentic way. They can be fairly simple and short (create a table in Word for our Office Applications class for instance) or more complicated and involved (like the sociology example above). The bottom line is that whenever you can assess a learning outcome in an authentic way, you should. Sometimes it is not possible.

Nursing students cannot initially learn how to administer IV's in real people even though they eventually will. Instructors have to construct assessments that approximate the real thing as much as possible. The same holds true for all disciplines. When the real thing is not possible, construct assessments that approximate the real thing.

### Make it relevant

Another important factor in authentic assessment is to try and make the assessment as relevant and meaningful as possible. So in the accounting example mentioned above, if the instructor could get information from a real company of interest to students, like Nike, Apple, Google, or a local company our students know, then they see the real-world relevance of knowing the concepts and skills more effectively and have more motivation for learning.

Again, these kinds of authentic assessments can take the form of fairly short assignments that students receive and complete in a week or the form of longer-term assignments that take weeks or even the entire semester. These assessments could also be in the form of discussions (more on that later). The possibilities are wide open for the kinds of assessments that can be created.

In many ways, creating quality assessments is one of the most important things you do in creating a course. They establish the measurements for assessing learning, create learning opportunities in themselves, and provide direction for the learning activities you will create. Just remember that all assessments should be clearly aligned with your learning outcomes. A project may sound interesting, but if it does not contribute to student learning and/or assessment of one of your learning outcomes, it serves no purpose.

See the Authentic Assessment Toolbox and this article, How Authentic Learning Is Transforming Higher Education, for more on developing authentic assessments.

### Frequent, rich Feedback

Assessment is not just about a one-time evaluation of student learning. It should be an ongoing process that allows students to benefit from the assessment. Let's go back to a sports analogy for a moment. If I am teaching beginning tennis players how to serve, I would show them how to do it and describe the mechanics of it to them (analogous to a lecture and demonstration in a classroom). But then, of course, I would ask them to try it themselves. As they do, I would provide

feedback: "Throw the ball a little higher." "Aim your racquet toward the cross court." "That's it. Now try hitting it a little harder." I am providing feedback as the beginner learns the skill. **No one would expect that my explanation and demonstration alone would be sufficient for them to learn how to serve**. They have to try it and get constructive feedback as they do.

We expect athletes and musicians to practice and get feedback in order to improve their skills, but somehow, this need to practice in academic instruction is generally not as obvious to instructors. We "teach" students, and then the next time we find out if they learned it or not is on a test. By then, it's too late. There are some exceptions. Math instructors, for instance, traditionally give students many chances to practice the application of math principles through repetitive problems, but in many disciplines, the opportunities for feedback are limited (and as the bus example above shows, not always in math either).

Providing students with opportunities to practice and get frequent and rich feedback, whether the practice is graded or not, is a cornerstone of good instruction no matter if you are teaching tennis or physics (Chickering and Gamson, 1087). Students need the opportunity to practice what they are learning by solving problems, testing their memory, distinguishing between concepts, and much more. As they do, your feedback is important to them, just as the tennis coaches' feedback is. If students are developing skills or knowledge of any kind—recognizing medical symptoms, analyzing financial trends, improving reading skills, identifying types of fauna, understanding economic principles—they need practice and feedback as they do.

So it is important to build in plenty of opportunities for students to test their knowledge and skills and get that feedback. This is one area where online learning may have an advantage. You can build a variety of practice activities into your course, and not all of them require you to provide direct feedback to students. For example, the self-assessment tool in GeorgiaVIEW allows students to test themselves without any effort from you (after you build them, that is!). Likewise, there are other activities you can create, such as StudyMate activities, and Open Educational Resources and publisher materials you can use that provide students with immediate feedback as they test their skills. Finally, you can create assignments where students give each other feedback through discussions or other activities. However it is done, it is imperative that your course have such learning opportunities.

### Rich feedback

But you also need to be sure you provide opportunities for individual, "rich" feedback. This kind of feedback provides direction to a student for improvement and not just whether or not they have a right answer. When composition instructors provide specific feedback on why a paragraph needs reworking, they are providing useful feedback. When accounting instructors point out where an error occurred in a series of calculations or ask questions that direct the student to finding the error, they are providing rich feedback. This kind of feedback takes time, but it is vital if learning is to occur.

Of course, one of the key values for providing this kind of feedback is that students get to try whatever the assignment is again . Feedback given on the one required paper in a course is of little learning value. In fact, if students know they will not have to demonstrate their knowledge on this particular outcome again, they may only look at the grade and completely ignore your carefully crafted feedback. If, however, they get to turn in a draft, get feedback, and rewrite the paper, there is opportunity for learning (if students choose to take it of course). The same concept applies to any form of assessment or practice you provide students.

### Using existing assessments

You may already have some good assessments developed for many of your outcomes. These could be assignments, projects, discussions, or test questions. If you use existing assessments, just be sure they directly assess the learning outcome with which you are associating them. Otherwise, the whole point of this process is defeated.

In reality, many of your existing assessment components can probably be modified to more efficiently assess a particular outcome. But now is the time to make sure they do. A test question may need to be revised to assess higher order thinking or you may need more questions about one concept to validly assess the outcome. Or an assignment that does not address any identified outcomes will need adjusting or eliminating. **Just do not assume existing assessments match the outcome.** Think through whether or not the assessment will really show you if a student has mastered the outcome.

## Learning activities

Now you have your learning outcomes based on the level of knowledge and skill required, whether that be simple recall of facts, a discrete skill, or higher-order thinking, such as evaluating or creating, and you have developed how each of those outcomes will be assessed. Now it is time to plan how students will learn so they can demonstrate that learning on your assessments. Designing learning activities that align with your learning outcomes and assessments provides you with a clear direction for those activities and the purpose behind them. Again, this is one of the advantages of the backward design approach. You are developing learning activities that support exactly what you want students to learn and exactly what you will assess.

If simple recall of facts is the outcome, for example, then presentation of the facts through text or video and basic flash cards for practice may do the trick. But if higher levels of thinking are required, then you will need to think through what students need to achieve that outcome.

For each module of your course, review the learning outcomes you have developed and the assessments you plan to use. What explanation, demonstrations, or practice and feedback do students need in order to be able to succeed in showing you they have mastered the learning outcomes? Is a textbook reading sufficient, or do they need further explanation? Does some procedure need to be demonstrated or examples shown? Begin mapping out the readings and other resources you will use for each outcome on your course map.

### Active learning online

Active learning is not just for traditional classrooms. In an online class, students need the opportunity to do more than receive content, whether through reading, videos, or something else. In its simplest form, active learning means getting students to do something with content. In a f2f class, you might lecture for ten minutes and then get them to do something with that information (think-pair-share; categorize; debate, ask questions, etc.). The process of "doing something" with it reinforces what they have heard and provides opportunities to correct

errors in understanding and to deepen understanding. The same thing applies in an online class.

After students "consume" some content; that is, they read a page or two of text or watch a video, provide them with something to do with that content. This is somewhat similar to a f2f class where you might present a concept by lecturing for 10 minutes and then you ask students questions based on what you just presented to see if they are understanding it. To do this online, you could simply present a few questions with the answer on the next page of your content. Students consider the question based on the reading they just did and then check their answer. You could provide more interactive responses to the reading through PowerPoint interactions (discussed during our workshop) or other interactions created by others.

One of the simplest things you can do is to provide a self-assessment through the self-assessment tool in GeorgiaVIEW—a short series of questions on what they just read. For basic recall information, offer matching exercises, flip cards, Jeopardy-type games and other ways to test their recall. Or you can also ask higher-order, multiple-choice questions with the assessment tool as well. With the tool, you can provide meaningful feedback for each answer a student might choose.

Do they need opportunities to practice the skill or exercise the knowledge more deeply? Remember that practice refers not only to more skill-based outcomes but also to applying purely cognitive concepts. For example, if you are teaching a particular theory of your discipline, give students the opportunity to practice recognizing the theory in action. Case studies and/or videos could be provided where students interpret the case by that theory or explain the situation in terms of the theory. This could be through assignments or discussion groups.

The main point here is to provide students with a way to exercise their understanding of the content just presented to them. This reinforces their learning and provides them with feedback on whether or not they are understanding your content. As already described, you do not wait until a major test for you or students to find out they do not understand.

### Using textbooks

Textbooks are there to serve you and your students as they master the content of your course. **You are not teaching a textbook.** You are creating opportunities for your students to learn certain concepts or skills. This means that you do not have to assign every page of the book; nor do you have to assign readings in the order presented in the book. Make the textbook serve your pedagogical purposes by using it in whatever way best serves your students in their learning quest. The textbook is a resource, not the course itsefl.

One of the advantages of eTextbooks is that many of them can be easily modified to fit your needs. You can rearrange chapters, delete entire sections, or even modify the text as needed.

### Existing resources

You do not need to reinvent the wheel when it comes to providing many learning resources. If you teach anatomy, for example, you do not have to create interactive, animated models of each body system for your students to study. There are already many of them out there that are freely available. The same thing applies to almost every subject and topic. Look for Open Educational Resources you can use as learning activities, and concentrate your time on those things you need to develop for your particular class that are not available elsewhere.

Just be sure when using resources created by others that they do fit your particular instructional needs. Just because you find a cool animation out there somewhere does not mean you should use it if it does not really apply to your learning outcome or learning activity. **Remember that as you are developing learning activities, you are preparing students to show you they have mastered your learning outcome by successfully completing the assessment you have constructed.** What do they need in order to do this? So even if you do find that cool animation to use, be sure you provide students with direction for how to learn from it. Ask questions or pose problems that the animation will help them answer.

## Developing learning activities

In some cases, there are simply no good publisher or open educational resources available for a particular purpose. In this case, you have to design your own. Below is a collection of ideas for learning activities in three categories: **explaining** things, **demonstrating** things, and providing opportunities to **practice**. These options are provided to spur your thinking in the best way to provide the learning experience students need and not as a list of things your course should necessarily have. Learning activities serve the purpose of helping students achieve outcomes. If they do not, they should not be in your course. Below are some ideas for how to provide activities for each of the three categories.

| **Explanation** | **Demonstration** | **Practice** |
|---|---|---|
| Readings (textbook; instructor-created readings; articles, etc.) | Video demonstration (instructor-created, publisher, or open resources) | Games (crossword puzzles, matching, etc., plus publisher-created) |
| External web resources | Simulations or animations (publisher-provided or open resources) | Interactive exercises (identifying bones of the body with flash cards) |
| Infographics | Photos/graphics | Case studies (many ways to use these) |
| Concept maps | Live web conference | Problem-based exercise |
| Narrated PowerPoint | Present me | Self-assessment quizzes |
| Prezi | Student-created demos | Discussions |
| Video (instructor-created or existing on the web) | | Writing (reflections, summaries) |
| Live web conference/chats | | Debates |
| FAQs | | TedEd video with questions |
| Resource list | | StudyMate exercises |
| Capzles | | Critical analysis |

| | | |
|---|---|---|
| | | (i.,e.,critique a poorly written lab report or student paper) |
| Present me | | Student produced explanations/presentations |
| TedEd video | | |
| Existing YouTube or TeacherTube videos | | |

### Other learning activities considerations

Many instructional design models (see ADDIE, for example) begin with an analysis of your audience. In other words, you need to tailor your learning to the specific audience you expect to receive it. For example, if your courses tend to be populated with older, non-technical-oriented students, you either must avoid high levels of technical requirements or build in training or assistance for them. So as you develop your learning activities, keep in mind the students you have had in the past and the kinds of support they need to learn.

You should also look for ways to present your learning activities using a variety of means that appeal to different learning styles and interests. Do not always use just simple text or always use a narrated PowerPoint, for instance. Mix it up, in part to create variety and keep students interested. But you also want to appeal to different learning styles. Ideally, for instance, a transcript of a narrated presentation should be made available to those who prefer to read your presentation. Look for a variety of ways to present information and learning activities. Although it is best to have a consistent look and feel for each module of your course, mixing up the way you deliver material is fine as long as the organization of each module is consistent. Students will know where and how to find things in each module and not be thrown off.

## Beyond the content

The online environment for students—outside of college—is full of interaction. From video games that allow users to interact and get immediate feedback in all sorts of ways (you kill or get killed in some cases) to social websites that provide frequent replies to users, students are accustomed to their online activity giving them interaction and feedback. That is one of the reasons so many people spend a lot of time on things like Facebook. Then they go to their online class and get a grade every few weeks or a discussion response every couple of weeks. The online class is dead in comparison to the rest of their online life.

We have to combat that by seeking to make the course a place that is alive so students stay engaged in the course. This is not to say that online learning has to function like a video game (though some argue that such "gamification" is a good idea). But courses need some degree of interaction so that students feel as if someone knows they are there. This contact helps increase their effort in the course as well as their persistence to finish it. Would anyone ever go to Facebook if no one was posting anything or responding to their posts? No, they would not. And students are not motivated to go into a course if it is just a pile of content.

So one of the things needed in online courses is the intentional creation of opportunities for students to connect with the course by interacting with it. Designing for interaction between students and instructor, students and content, and students and students is key for learning to take place (Bain, K., 2004). In an online class, this building of a "learning community" may be the most important factor in ensuring that learning takes place (Grandzol and Grandzol, 2006). Without it, students lose interest and motivation, do not get the learning support they need, and feel isolated. Students who feel isolated in an online course tend to not do as well as those who feel connected to other students and the instructor in a course. The creation of a learning community is one of the key differences between a self-paced course and an active, online course.

Achieving this connection is partly a matter of how you design a course and partly a matter of what you do while teaching a course. We will look at those instructor behaviors later. Let's look now at designing for interaction.

### Connecting instructors to students

You first need to be sure you introduce yourself in the beginning of the course. The instructor welcome and introduction should let students know a little about your professional background—why you are qualified to teach this course—and a little about you personally just so they can relate to you. You do not have to reveal anything really personal though many faculty do. If you are not willing to say anything about your life outside of academia, at least tell them why the discipline you are in interests you. For instance, "I have always been interested in literature. Since I was a little boy, I would hide away in my room for hours reading every book I could get my hands on....

Since online students may not know who you are at all, it is good to post a photo of yourself in this introduction. It could be a simple headshot or something more active. Posting a picture of you with your kids or your dog or you doing your favorite recreational activity helps to humanize you and put a face behind the words they will read from you all semester. Again, it is not necessary to publish personal information, but because online students cannot see you as they do in a f2f class, you need to make some effort to let them know there is a real person on the other side of the computer screen.

**Video**. Another relatively easy way to prove you are a human being is to present yourself from time to time in a video. Instead of a photo, you can introduce yourself to the class using a simple, short webcam video recording. Or you can post video updates as news items from time to time.

**Synchronous activities**. You can schedule live events ("synchronous" in distance learning vernacular) where you and your students interact through a chat room or other audio/video web conferencing means. Such live interaction can increase the connectedness that students feel to you and other students. You can have scheduled "office hours" in a chat room in GeorgiaVIEW or use other tools, such as Skype, to be available at specific times. You can also provide live events to discuss course content, demonstrate things, and have guest or student-led presentations.

In most cases, these synchronous interactions should be voluntary since you cannot require students to attend scheduled events. Since one of the prime advantages of online learning is to work when it is convenient, requiring students to be at their computer at a certain time—a time they did not know about when they signed up for a course—takes that advantage away and is often impossible because of work schedules and other commitments. If you are willing and able to

provide these sessions as many times as needed to ensure the necessary flexibility for all, you can require them. But in most cases you should offer these sessions as optional opportunities.

You need to create these kinds of opportunities to connect as you create a course, but there are other things you can do to improve instructor connectedness to students as you are teaching a course. We will discuss those more in the **Teaching Online** section later.

### Connecting students with students

Students often report feeling isolated in an online class—as if they are out there working on the class by themselves and no one else knows, or cares, what they are doing. Besides the instructor connecting to students, you can combat this feeling of isolation by providing opportunities for students to connect to each other in meaningful ways. This connection not only helps keep students engaged in the course but can also provide a social context in which students can learn from each other.

**Discussions**. Discussion posts allow students to "hear" the voices of other students. You can provide an introductory discussion where students learn who is in the class, and you can provide a question and answer discussion throughout the semester where students ask questions about course content to each other. And, of course, discussions designed to meet learning outcomes offer another opportunity for student interaction. Creating and managing discussions is examined below.

**Group assignments**. Having students work with each other in groups is one way to ensure that students are connecting with other students. But simply assigning a group project is not enough to ensure success with this sometimes difficult method of instruction. Instructors have long struggled with the best ways to manage group work both online and in traditional classes. But there are some things you can do to increase the likelihood of success.

Whenever possible, assignments involving interaction between students should be based on real-world activities and problem-solving. These kinds of authentic

assignments provide students with a reason to complete the assignment—to solve a real world problem—and thus helps motivate them and get them involved. For instance, you could assign a group to evaluate a case study. The group analyzes the situation, defines it, and provides some kind of conclusion based on the principles they have been learning in your course. Or you can present a problem based on the concepts of your course with a directive to solve it, such as resolving a company's cost overhead in a business class, suggesting solutions to an environmental problem in biology, diagnosing an illness in nursing, or recommending political solutions to a problem in history or political science, etc. These kinds of purposeful assignments—rather than having a group merely reporting on a topic—creates a need to examine an issue and work together on a solution.

**Group sizes**. The most often-cited ideal group size is five (Piezon & Donaldson, 2005), with smaller groups of three working in some cases. Larger groups should be avoided. Avoid even numbered groups to make sure any group voting will not be a stalemate.

**Establish clear rules, expectations, and role expectations.** Some suggestions for improving group effectiveness include the following:

- Establish high accountability standards by having individuals and groups report progress or turn in parts of the project at specified dates rather than everything at the end.
- Establish group roles (depending on the assignment), such as a leader, a recorder, a researcher, etc.
- Have group members rate each other on completion of tasks and include that rating in the individual student's grade on the project.
- Include attendance at group meetings (whether chat sessions, f2f, Skype, etc.) as part of individual student's grade.
- Provide groups with clear directions about role expectations and problems to avoid.
- Stay involved with the group as an instructor. Do not wait until the end of the project to check in with a group.

Remember that all such activities should be clearly tied to learning outcomes. Even though group activity increases student connectedness in a course, it should not be there if it does not serve an instructional purpose. But when you can, designing your course to achieve learning outcomes through the use of some group work will encourage connectedness while also working toward learning

outcomes. There are numerous ideas and suggestions for how to manage groups, including dealing with "free loaders" and other group-related problems. Read more ideas in the Further Reading section at the end of this document.

For other methods of connecting in online classes, see the paper Learning Activities that Foster Interaction.

## Creating and Managing Discussions

Discussions have become an important tool in online learning because of the ability to get students to engage with course content, other students, and the instructor alike. They also serve as a valuable way of assessing students' understanding of important concepts. Formulating written posts requires students to think through concepts and ideas, and this process helps them construct meaning out of the course content. But designing good discussions prompts and using discussions in a purposeful way can sometimes be a challenge. Here are some guidelines for using discussions.

### Constructing good discussion prompts

Discussions are best used when you want students to think through concepts rather than just answering a question with a right or wrong answer. Save such "closed" questions (the opposite of open-ended) for quizzes or self-assessment exercises. For one thing, when your discussion prompt asks for "the answer," then after the first person posts the right answer, there is really little for everyone else in the class to do: "What are the primary steps in photosynthesis?" or "What event marked the start of World War II?" Once the answer is there, the discussion is over.

Furthermore, posting such questions does not take full advantage of the purpose of discussions, that is, to engage students with the content and other students by requiring the use of higher order thinking skills. Discussions are most valuable when students are asked for divergent or evaluative thinking where they are using concepts to solve problems. For instance, ask "what if" questions or questions that ask students to make predictions based on what they know: "Given the circumstances of the time, what might have happened if Germany had been prevented from invading Poland?" or "Based on what you know about oxidation, what concerns might you have if you were the manager of the Bainbridge marina? What would you need to be on the lookout for?"

These questions further and deepen understanding of key concepts. These types of questions require students to make predictions, compare and contrast, solve problems, speculate, synthesize multiple ideas or perspectives and so on. In order to do these tasks, the student must first have a basic understanding of the key principles or facts. Then they can think critically about the concepts. Such

questions also give you a means of assessing whether or not students are achieving learning outcomes that call for this kind of outcome.

Here are some examples of good and not-so-good discussion prompts.

### Being clear about expectations

It is important that you let students know what is expected of them in discussions and how they will be graded. Students get very frustrated (understandably) when they respond to a discussion the best they can and then receive a poor grade without really understanding why. Provide some general directions early on in your course about how to participate and score well in discussions and then make sure your expectations for each individual discussion are very clear, including when and how they should post. Clarity also promotes participation and motivation (Gilbert & Dabbagh, 2005; Akin & Neal, 2007).

Another way to be clear is to provide your students with examples of good and bad posts from past classes (without anything that would reveal the identify of the student, of course) or make up your own examples based on your experience reading student discussions. Explain why each post is effective or not. Such examples can be powerful teaching tools for learners.

Students need motivation for participating in online discussions (Rovai, 2003). Motivation can partly come in the form of grades. Students will generally only do work that has a payoff. So grading discussion participation is one easy way to provide the payoff. But creating interesting, compelling discussions is another way to motivate students. Discussions that are geared toward solving problems, exploring real-world issues, or that broach controversial topics, for example, are more likely to get active participation than those that ask more pedantic, "repeat back what you just read" discussions. Creating such good discussion prompts can be challenging with some topics, but you can improve your prompts with some effort.

### Grading discussions

It seems apparent that grading discussions is necessary not only to provide assessment of students' understanding but also as a means of motivating participation. If discussions are not graded, then only those who are intrinsically motivated to participate will do so. Establish your criteria for discussions early in your course and make the criteria for individual discussions very clear. Consider

providing examples of good and bad posts and refer students back to these from time to time.

Rubrics can provide both students and instructors alike with guidelines for how to create and judge discussions posts. Although the use of rubrics for discussions in the current GeorgiaVIEW is somewhat cumbersome, you can use them to provide feedback on the discussion or simply as a guide for yourself in assessing discussions.

### Variations that promote engagement within discussions

**Smaller group discussions.** One way to maximize some discussions is to place students into smaller groups for the discussions so that students are not overwhelmed with a large number of posts to read. In smaller groups, students can more readily read and respond to all the posts of others in their group, and each student's post and responses is more apparent to everyone involved (Baker, 2011). The quality of their posts, or lack thereof, stands out and will hopefully encourage more thoughtful responses. Although putting students into groups for discussions takes a little more management time on your part, you do not end up reading any more posts than in a larger class-wide discussion.

**Students as moderators.** Another option is to assign students to moderate specific discussions throughout the semester. The moderator has the job of responding to posts, moving the discussion along, and summarizing at the end.

### The instructor's role in discussions

It is important that you develop a "social presence" in your online class in general (we will examine this topic in more depth later), and in discussions in particular. That means responding to all students as appropriate in a timely and meaningful way but without overdoing it. You want to leave room for students to engage with each other, and indeed, you want to promote student-to-student interaction. This means that at times you literally "provoke " them: "Rachel had another explanation for this. What do you think of her position?" And sometimes it means waiting a day or two for others to respond before writing anything. The goal is to stay active—where students feel like you are paying attention and responding to them—but not controlling so that the discussion is primarily happening between students. Finding that balance is an art.

Although you do not have to respond to every post in a discussion, it is important that you respond to each student at some point. Some instructors make a point to

respond to each student in each discussion at least once while others only make responses when justified by the post. However you go about it, it is important that each student receive some kind of response from someone. It is somewhat defeating to post a comment and have literally no one respond. So another possible guideline is to respond as dictated by the posts and the direction of the overall discussion and then respond to any individual students for whom no other students have responded. As described above, assigning students to moderate specific discussions helps ensure all students receive responses.

Your responses to students should further thinking and inquiry when you can. Below is a set of "probing" questions to further your thinking about how to ask questions during discussions to deepen student thinking.

**Probing Questions**

| Questions that probe for: | Example Questions |
|---|---|
| Clarification | ● Let me see if I understand you; do you mean____or____?<br>● What do you think Tyree means by his remark, Aailyah?<br>● How does this relate to our problem/discussion/issue?<br>● Tosha, can you summarize in your own words what Richard said?<br>● Fedha, is this what you meant?<br>● Would this be an example?<br>● Would you say more about that?<br>● How does____relate to ____? |
| Assumptions | ● What are you assuming?<br>● What is Jenny assuming?<br>● What could we assume instead?<br>● You seem to be assuming____. Do I understand you correctly?<br>● Your reasoning seems to depend on the idea that____. Could you have based your reasoning on ____ instead of____?<br>● Is that always the case? Why do you think the assumption holds here?<br>● Why would someone make that assumption? |
| Reasons and evidence | ● What would be an example?<br>● Do you have any evidence for that? |

| | |
|---|---|
| | • What other information do you need?<br>• What led you to that belief?<br>• How does that apply to this case?<br>• What would change your mind?<br>• Is there a reason to doubt that evidence?<br>• Who is in a position to know that is true?<br>• What would you say to someone who said that____?<br>• What other evidence can support that view? |
| Viewpoints or perspectives | • When you say____, are you implying____?<br>• But if that happened, what else would happen as a result? Why?<br>• What effect would that have?<br>• Would that necessarily happen or only possibly/probably happen?<br>• What is an alternative?<br>• If____and____ are the case, then what might also be true? |
| Implications and consequences | • How can we find out?<br>• Can we break this question down at all?<br>• Is this question clear? Do we understand it?<br>• To answer this question, what other questions must we answer first?<br>• Why is this issue important?<br>• Is this the most important question, or is there an underlying question that is really the issue? |

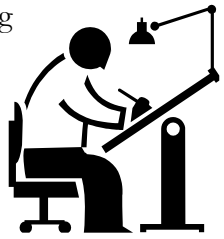
***Source.*** **adapted from Stepien, n.d., ¶ 3.**

### Wrapping up discussions

After a long and meaningful discussion, it is sometimes useful to summarize and wrap up a discussion for students to bring closure and a clear focus to the discussion. This does not mean your wrap-up necessarily states the "right answer," but rather, it identifies the essential ideas brought out in the discussion, and when appropriate, summarizes the best arguments, ideas, and any conclusion reached by the class (Boettcher & Conrad, 2010). This wrap-up would be offered after the class has finished posting and any grading to be done is complete.

Your wrap-up could be in written form, or you might consider some other alternatives. You could record a simple video message that provides your wrap-up or offer a live, synchronous session to review the discussion. If you do the live session, be sure to either archive it or provide your summary in another form for those who cannot attend.

## Putting it all together



After your course map is complete—you know your learning outcomes, assessments, and learning activities and have them mapped out—you are ready to organize the course by arranging your outcomes into modules. Most faculty prefer to organize by week, but you could organize modules by a topical unit and assign dates later. Some outcomes will be completed within one module while others will be spread across several weeks or even the entire semester. Now is the time to determine when and how these outcomes, along with their assessments and learning activities, will be organized within your course.

As you organize your course components, you may discover that you have too many outcomes, along with their aligned assessments and learning activities, to realistically complete in a course. At this point, you have to decide if you have overshot the number of outcomes you should have or perhaps the depth of them. Do you really need to cover every outcome you have to the depth you have it or would it just be nice if you could? If it is the later, you may need to trim your outcomes to fit the amount of time you have in a course.

As the progression of your course becomes clear to you, you may find that some modules are much more demanding than others. If this is so, consider balancing the workload more evenly throughout the semester. You may have all the outcomes for a particular topic in one week but discover that the outcomes are easily achieved. In this case, consider adding an outcome or two from another topic altogether. If you do this, just be sure you introduce the new topic and prepare students up for it appropriately as you do when introducing each unit.

## Finishing all your components

So now your course is organized into units. If you have not already done so at this point, it is time to actually create all of those things you have called for—the assessments and learning activities. Remember that creating assessments should be done before creating learning activities.

If you indeed have not created all your assessments yet, you may discover as you do that you need to modify your outcomes. You may realize when you develop an assessment, for instance, that the outcome as written is too demanding or not specific enough. For example, if your outcome is "Students will identify symptoms and assign the appropriate diagnosis for all major psychological disorders," you may realize as you are creating the assessments for this that the outcome is too broad and deep for your course. Now is the time to change the outcome so you can develop the appropriate assessments and learning activities. Conversely, you may find as you develop an assessment for an outcome that the outcome is really not specific or deep enough, so you will need to rewrite it. Once again, that is the whole point of this process. It ensures that you are developing your course to achieve the appropriate student learning outcomes.

It is recommended that you do all of this on paper; not in GeorgiaVIEW. You should not actually create anything in GeorgiaVIEW until near the end of your course design process. The reason for this is quite simple. It is much easier to change a document where you are rearranging content or rewriting text than it is to change any of that in the LMS. You do not put anything into GeorgiaVIEW until you are pretty sure you have it created and organized like you want it. This will potentially save you a lot of time later if and when changes are made.

Most design experts suggest that you create everything outside of the LMS by creating folders that replicate the organization of your course. So for example, you will have a Course 1101 folder on your computer with subfolders for each week or unit in the course. Then you put all the documents and files needed for each unit in that unit folder. For things like discussions and Dropbox assignments, write the prompts and directions in a Word document that you can later paste into the appropriate tool in GeorgiaVIEW. When everything is created, the process of uploading to GeorgiaVIEW is relatively quick. If/when you need to make changes to something, you do it first in your offline folder and then upload the change to

GeorgiaVIEW. This way, you have a clean copy of your entire course on your computer that you can revise as needed. Plus, this course can be replicated in another LMS if necessary because you have all the components outside of the LMS. Whether or not you do it this way is completely up to you.

### Creating your introduction to the module

After you are satisfied with the assessments and learning activities for each module, create your introduction to the module. You do this after assessments and activities are created, of course, because you are tailoring it to those exact assessments and activities. You cannot create an effective introduction until those are finalized.

The introduction should grab students' interest in the topic and put it in context. You could ask a question, "Why do some states attract more businesses than others?" or show a photo or video of hydrilla on Lake Seminole and ask, "Do you ever think hydrillas will overtake the lake? What can be done about invasive species?" The idea here is to capture their interest in the topic(s). Connect it to something they already know about or care about and show them that what they will learn in the module matters. The more you can show the relevance of the topic to their lives, the better. This is sometimes hard to do, but it can usually be achieved to some degree. You can accomplish this in written text, photos, videos, and other media help to capture their attention.

The point of this is at least partially obvious. You want to stir up some interest in learning. Consider the difference in these two introductions:

VERSION 1

> **Module 4**
> *Calculating accrued interest*
> In this module, we will learn about the three types of interest calculations typical of consumer loans.
>
> *Learning Outcome*: Students will calculate accrued interest on three types of loans

VERSION 2

**Module 4**

*Calculating accrued interest*


I remember so well the day my aunt and uncle paid off their house. I happened to be visiting when they received the deed in the mail. My uncle proudly showed me the deed with a look of great satisfaction on his face. We talked about how much the house originally cost (a mere $33,000 years ago) and how much his monthly payments were for all those years. But then came the shocker: He had paid over $100,000 for this house that actually cost $33,000. Why? Because that is how much the interest accrued over the years. Do you know how much you are really paying for your car or your student loan? It is sometimes really easy to take out a loan, but those seemingly low monthly payments can add up to more than you may think. You have to consider interest as well as the monthly payment. Understanding interest is one of the most important financial principles you can learn.

***What you need to know***

In this module, you will learn how to calculate the real cost of a loan and how to apply the fees and hidden costs often associated with a loan. The ability to calculate these costs will allow you to determine if the terms of a loan are good enough to accept.

The second version is certainly more interesting and compelling than the first. And notice how the topic would get their attention. "Do you know how much you are really paying for your car loan?" would itself be a good line with which to start this introduction. Not every topic or learning outcome commands such personal meaning, but you can probably make most learning outcomes more relevant than you may initially think if you apply a little creative thinking.

If there is no way you can find to make the topic personally relevant, at least make it compelling. Present a problem or a question to be answered. In a history class, for instance, studying Nazis may not be currently relevant, but you could present the topic in terms of current political prejudices and social groups and how we might address those issues by understanding the past. Similar approaches can be applied to most topics.

### Tell them what they need to learn

Included in your introduction should be a description of what students will learn in the module. In other words, specify the learning outcomes. Specifying what you expect them to learn helps focus their attention on what is important. But it is important that you do this in a way that students will pay attention to. You could include the outcomes exactly as you have written them in your course map or put them in more friendly, accessible vernacular as in the version 2 example above. You might also label these outcomes in a more meaningful way than calling them "learning outcomes." Smith (2008) uses the title, "What you need to know" (see Version 2 above again) because she finds that beginning college students prefer these kinds of casual titles. However you do it, be sure to include some kind reference to what students need to learn in the module.

After introducing the topic and outcomes, tell students what they need to do in the module—a description of the things they need to actually do to complete the module. You might call these "tasks for this module" or "what you need to do" or something similar. This list of items could simply be a list that replicates the next items in your table of contents for the module, or the list could be links to the actual items. For instance, if your first two tasks are "read this paper" and "fair wages discussion," the items listed could be links directly to those parts of the course, or they could simply be pointing out those things that are next in the table of contents.

### Other introductory items

Two more items you might include in each module are a "how to be successful in this module" section and a study guide. The "how to be successful" section could contain your advice about how students should proceed in the module. For instance, if an assignment carries a lot of grade weight in the module, point it out here and give suggestions for how to complete the assignment. Imagine if a student was sitting in your office asking you how to get an A in that module. What would your advice be?

Finally, a study guide is a way for you to emphasize what is most important in the module—especially if there is a lot of content or reading. In the guide, you might include a summary of the major ideas and key terms of the module as well as questions or problems they should be able to answer after completing your learning activities. You could actually combine the study guide with your learning outcomes to create a coherent presentation of what you expect them to learn along with more specific details.

Whichever of these introductory components you choose to use, be consistent in your use of them from module to module so students become accustomed to where things are in your modules.

### Introduction to the Course

After the bulk of your course is created, it is time to go back to the beginning and create your Introduction to the Course. Why wait until the end to create the beginning? You cannot create a meaningful introduction to the course until you are sure exactly what is in it. You likely knew most of it before you started the design process, but you did not know it all nor how you would be assessing students. Once that is all clear for you, you are better prepared to create a meaningful introduction.

Remember that college policy requires the first module of your fully online course to be called exactly "Introduction to the Course" with certain components in it. Students learn in their required tutorial that they must complete the module by this name in order to be counted as present in the course during the first week. The standardization of this process solves a number of logistical problems for reporting attendance to the federal government.

This introductory module should include an introduction/overview of the course, the introduction of the instructor, the course syllabus (which you finalize at this point), and at least one activity for the student to complete, such as a discussion post, syllabus quiz, or just an email to you. In other words, there should be something for students to actually do to demonstrate they are active in the course. Completion of this module and the activity is how you determine attendance in your course to report to the Registrar at the end of the first week of the semester. The introductory module does not have to be your first weekly module. You could have an introduction to the course module as well as a week 1 module with its own requirements. This is up to you and your course design.

Your introduction to the course, like your introduction to specific modules, should get students interested in the entire course. What big questions or problems does this course answer? What fascinating questions will you explore? How will learning things in this course help students in their lives outside of college, prepare them for a career, expand their intellectual horizons, or even just get them ready for the next course in a program? You can create this introduction

with text, photos, and/or videos. This is a time to be creative in getting students interested and motivated to go on to the next step in the course.

You might also consider a section in your course introduction on "how to be successful in this course." If you know there are certain things students should be careful about doing, then tell them upfront. This might include suggestions like taking advantage of extra practice problems you provide, taking their time with discussions because they count a lot in the course, or making their own notes from the assigned readings. What advice would you give your favorite niece if she were taking your course?

### Final review

Before you put everything into GeorgiaVIEW, take time to review the entire course. Is the amount of work from week to week relatively even? Do your module introductions flow well from one module to the next? Are opportunities for interaction between students spread throughout the semester? Answering these kinds of "big picture" questions now will save you time later since it is easier to make those changes before creating your course in GeorgiaVIEW.

A well-organized course with clear paths is vital to the success of a course. Nothing kills motivation faster for a student than not understanding what they should do or spending a great deal of time figuring it out. A well-organized course will also benefit you because it will reduce the time you spend answering questions about the logistics of your course, such as, "Where is assignment 2? When is discussion 3 due? How do I find the video?" Your course should be organized and sufficiently clear that you get few of these kinds of time-consuming questions (of course, the reality is that you will always get some of these questions, no matter how clear things are, but the goal is to get as few of them as possible). One thing this means is that each module of your course is organized in a similar manner so that students learn where things are and do not have to search for them every time they start a new module. So for instance, each module might be organized like this:

- Introduction
- What you need to know (learning outcomes)
- How to succeed in this module
- Learning Activities
- Module Discussion
- Module Assignment

- Module Quiz
- Module Checklist

However you organize your modules, some consistency will help students with their navigation and understanding of what to do.

### Instructional Notes

Consider developing some simple instructional notes to be used by other instructors who may use the course you have created. What would other instructors need to know about your content, assessments, and activities that is not apparent from looking over the course? You could provide reasons for assignments or how assignments build on each other. Like your advice to students on how to succeed, what would you want to tell someone else about your course who might teach with it? This might also include pointing out where instructors would need to make modifications, such as replacing your personal video with their own. You could create a single document with this information or create a short version within each module. Just hide that item in GeorgiaVIEW so that it is not visible to students.

After you have all the components created and organized, you are ready to put the course online.

### Uploading your course

If you are using a provided template, you will need to copy and paste text into the appropriate places. If you are not using a template, then upload documents as needed or copy and paste into the HTML Creator, import quizzes, create Dropbox assignments, and so on. At this point, you are primarily doing administrative tasks since you have already made design decisions for your course. You are just getting it all into GeorgiaVIEW.

After the upload process is complete, double-check the appearance and formatting of all items and links. In other words, be sure your course is fully functional.

## The BSC Quality Online Course Design Rubric

The BSC rubric (found here) is based on national standards for effective online course design with a few modifications to fit our particular needs. The rubric does not tell you exactly what needs to be in your course nor how to design it, but serves as a guide in ensuring you have the necessary components for a quality course, regardless of the subject. It is somewhat analogous to a flight checklist that pilots use before taking off. The checklist ensures pilots that everything is in place and working, but the checklist does not tell them how to fly the plane. Likewise, the rubric helps you be sure you have the right components in place for your course.

The standards in the rubric reflect the course design principles we have already explored. Once again, it is just a checklist to be used by you to make sure your course is built solidly and will guide other faculty who evaluate your course as part of our course design process.

The rubric has four sections:

- Course introduction and information
- Learning materials and content
- Assessment and evaluation
- Course technology and accessibility

Each of these addresses a number of issues.

*Course introduction and information*

This section provides reminders about important introductory information and the ways you get started in a course. Are all the necessary components there?

*Learning materials and content*

Is your course organized and easy to navigate? Do you appeal to different learning styles? Are there opportunities for student-to-student and student-to-instructor interaction? Is there a consistent look and feel to the course? Is the workload balanced and appropriate?

*Assessment and evaluation*

This section has reminders about the importance of aligning your learning outcomes with assessments, the importance of providing self-assessments or practice, and the necessity of clarity with all instructions.

*Course technology and accessibility*

Are you sure everything works in your course? Are all the links working? Are you taking advantage of different kinds of technology and ways of presenting material? Is the content of your course accessible or adaptable to those with disabilities?

In addition to the rubric itself, see the rubric with guidelines document for more explanation of each standard.

### The design and creation process summarized

Here is a short summary of the entire course design and creation process:

1. You begin your course design or redesign by establishing your major course outcomes and "big ideas."
2. Take the major goals and break them down into specific student learning outcomes. What do you want students to be able to do or know for each concept or skill? Be sure you write the outcomes to the thinking level you really want students to achieve and write your outcomes in behavioral, measurable terms..
3. Determine what is acceptable evidence that students have achieved those outcomes. In other words, develop your assessments. These include assignments, case studies, discussions, projects, quizzes, and anything else that you can use for students to demonstrate their mastery.
4. Then, and only then, consider what learning activities you need to provide to enable students to succeed on those assessments. Create your learning activities and make adjustments to assessments if needed. Create video lectures, supplemental readings, practice assessments, practice exercises, and find existing external sources.
5. Organize your outcomes, assessments, and learning activities into modules.
6. Create the introduction to each module.
7. Review the flow and balance of the course. Is the workload spread fairly evenly throughout the course period? Revise as needed.
8. Review the course for engagement. Are there sufficient opportunities throughout the course for students to engage with other students and you? Revise as needed.
9. Create your introduction to the course.
10. Develop your course syllabus. (See the guidelines in the Faculty Teaching Handbook.)
11. Write instructional notes for other faculty who may teach with your course.
12. Upload and develop the course in GeorgiaVIEW.
13. Use the BSC rubric to review your course.

# Teaching Online

Designing an online course and teaching it are two different things. You could possibly design a course you never teach, and more likely, you may end up teaching a course you did not design. How a course is designed, as we have seen, is vitally important, but so is what the instructor does during a course. A good online course experience for students requires a well-built course as well as an instructor who is active in the course.

You cannot just wind up a course and let it run—just stopping in to answer the occasional question and assign grades. Faculty activity in an online course is central to student learning and success. In a f2f class, students see you; they hear your words and see your face. They interact with you in different ways. It is a relationship of sorts that happens naturally (for most instructors) and is important in engaging students with content and learning (Chickering and Gamson, 1987). In an online class where you and students are separated by time and distance, you don't have this kind of interaction (and this is one of the things that makes some people doubt the efficacy of online learning). But connecting with students in online courses is possible; **you just have to be very deliberate about creating those connections**. You have to design for it and work toward it during the execution of the class.

### Designing for interaction

As we have seen, course designers must build in opportunities for interaction. This starts with an effective introduction of the instructor and students and continues with learning activities where faculty provide feedback, opportunities for discussion on course topics, and possibly synchronous activities, such as web conferencing. So as a course is created, the course designer looks for opportunities to create activities that not only support learning outcomes but also provide the chance for faculty and students to interact. Assuming those opportunities are already built into a course, the question remains: What does an instructor do during the course to connect with students?

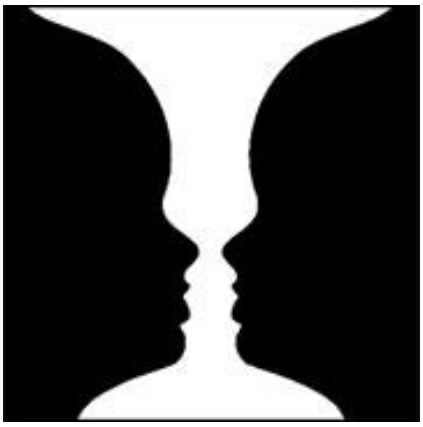
### Being "present"

One of the principle challenges and necessities of teaching an online class is to be "present." That is, you have to be active in the course in a way that students sense your presence and do not feel alone in the course. They know someone is paying attention to them and their activity in the course, or lack of it, and they feel as if they are connected to you through the course. Establishing a presence is partly a matter of routine activity and partly an art.

Betts calls this effort establishing a "human touch" (Betts, 2008). It is about getting students to know there is a real person on the other side of the computer screen who knows them as a student and knows what they are doing in the class. Without that human touch, students feel isolated and can lose motivation for persisting in the class. In a f2f class, you can sometimes establish this kind of connection with students by your casual interaction with them during and outside of class. Laughing at their jokes, sharing a short conversation after class about your favorite sports team, or looking them square in the eye as you make a point in class lets students feel as if you are there and you care about their learning. In an online class, you have to be much more deliberate in establishing that kind of connection.

### Relating at a distance

Can you really establish a personal connection to students in an online class? Absolutely. Remember that people meet, "date," and fall in love online. You can certainly establish enough of a relationship with a student to make him or her feel connected to a course. (Do not be turned off by the use of the word *relationship* here. It is used in the most fundamental way. It simply means making a personal connection to another human being in an appropriate way to the context.)



It all starts with a meaningful introduction of yourself, but that is only one small step. You need to be responsive to students as much as possible. This means responding with "rich and frequent feedback" as we have already discussed, but in this case, the purpose of that feedback is not just to provide a rich learning experience. It is to let students know you are paying attention to their learning and that you know them as individuals. Without this kind of interaction with an instructor, students feel as if they are working through the course all by themselves. And without this

sense of being a part of something, a learning community, students can quickly disengage from a course (Bain, 2004).

When you make comments on assignments, such as, "Much better than last week, Brady. I see you have mastered the theories we have been exploring," it lets the student know you are paying particular attention to them and not just giving them a grade. So you must look for opportunities to provide that kind of individual feedback, whether it be through assignment feedback, discussion posts, email, or other synchronous activity.

Being present also means being human. Among other things, this means showing humor and responding to students' humor when appropriate, responding to students' personal crises when they reveal them to you, and generally being personable whenever possible. A completely sterile, "business-only" instructor contributes to a sterile, unengaging learning community.

Establishing this kind of connectedness to students does not require the revelation of personal information. It just means making the attempt to connect to students in a personal, human way. Once again, you most likely do this in f2f courses naturally by telling students how your weekend camping trip was a disaster or how you wish you could have class outside because the weather is so nice. In the online environment, you must make a concerted effort to connect to students with a "human touch" as well.

Besides your individual responses to students, you can accomplish this kind of "humanness" by posting occasional video messages as news items. Create a short webcam video in which you comment on the previous week's work or preview the upcoming week. This simple, relatively easy post can contribute to your "presence" in a course.

### Getting connected from the start

Some instructors have found it beneficial to make a direct connection to students at the beginning of the course. For instance, you can provide a live, synchronous introductory web conference to get the course started in which you introduce yourself and get to know students. Just remember that this cannot be required as it is not part of the course schedule. If you do such a thing, consider doing it more than once to provide a time that all students can "attend" or offer other options.

Other instructors have found it useful to make a phone call to each student either in the very beginning of class or early during a course. This voice-to-voice connection allows you to answer any questions, but perhaps more importantly, helps establish you as a real person who connects the student to the class.

A less time-consuming approach to this same concept is to send each student an email, addressed to him or her by name, in which you welcome them to the course, tell them how to get started, and wish them well in the course. Remember that GeorgiaVIEW allows you to do this using replacement strings in one step. Some instructors also send such a message in a standard mail letter.

### Staying connected

Full-time faculty on campus have office hours during which students can come in and get direct help. Students in your online course could take advantage of this availability if/when they are on campus, or you can make yourself available during this time on the phone, chat in GeorgiaVIEW (or any other tool you choose) or through web conferencing, such as BCCONNECT.

Part-time faculty, who do not have office hours, should be clear with students about how to communicate with them in a timely manner. In fact, because part-timers may have other full-time jobs and may not be logged into GeorgiaVIEW for hours every day, it is even more important that they establish a clear way for students to get in touch with them and get help as needed. This could be as simple as checking your GeorgiaVIEW email each day to respond to questions and setting up phone calls or web conferences if needed. Whatever approach you take, students need access and responsiveness from part-time faculty just as much as they do from full-time faculty.

### Being responsive

A common complaint from students is that faculty do not respond to questions or requests for help in a timely way through email or even phone calls. When students are working through your course, they need an answer when they ask a question about procedures or when they encounter problems. Slow responses contribute to students' feeling isolated and alone in a course. The definition of "slow," however, is relative. It is human nature to want an answer to a question as soon as possible, and you can understand that inclination in an online course. If a student needs an answer to a question before he or she can proceed with an assignment, the answer is needed as soon as possible. It may seem reasonable to you to answer within a few days. But for students working through a course, a delay in work of a few days can severely reduce the amount of time they have to

work on the assignment that is coming due and can increase their sense of isolation in the course.

**Online instructors should typically respond to students no later than 48 hours**. Ideally, your responses should take less than that on most occasions. Part of your daily routine as an online instructor should be to check for such communications with students. Of course, you can exclude weekends if you want and make that explicit to students in your course introduction and syllabus. Just keep in mind that many students do a lot of work on weekends, so not checking on the course from Friday afternoon until Monday morning (which is more than 48 hours, by the way) can be a really long time in the life of a course.

You gain a lot of confidence and trust from students when you are responsive to them. This means that the minimum response time discussed above should be just that: a minimum. It is not the ideal. Responding to students in as timely a way as you can manage will help keep them connected and engaged in your course and improve their general regard for you. Work toward a schedule that allows you to log into your course daily, or close to it, to improve your ability to respond to students in a timely way.

### Avoiding repetitive questions

You can avoid having to spend time answering course-related questions by carefully designing your course with clear navigation and directions. But the reality is that no matter how well you do this, there will always be questions (sometimes legitimate and sometimes not).

Another way to minimize your time answering these questions is to provide a "course questions" discussion forum where students can ask procedural questions. You might consider repeating the link to this discussion in every module of your course as a way to emphasize the tool as well as provide easy access to it. One advantage of this approach is that other students can often answer the question without your having to do anything. Some instructors have offered a couple of bonus points to students who are the first to respond to such questions.

In general, you should answer a course procedure question only one time. How is that possible? When a student asks such a question of you in an email, ask him or

her to post the question in the course questions discussion so everyone can see the answer. You can direct students to that discussion for answers.

You might also consider creating a course FAQ (frequently asked questions) based on what you think students may have questions about and what they have had questions about in past courses. Add to the FAQ as the course proceeds and you find students are confused about something. After teaching a course a few times, your FAQ should cover most questions students would have about the course.

### Automated, "personal" responses

Our current version of GeorgiaVIEW allows you to automate some email responses to students that provide them with individual and seemingly personal responses from you. "Intelligent Agents," as they are called, allow you to create email messages ahead of time that are sent to students automatically at certain points in the course. For instance, after passing a quiz, students could get a message that congratulates them. And likewise, students who fail the quiz could get a message encouraging them to read more or reminding them they can take the quiz again (if you allow that). Although these automated message can increase students' feelings of connection to you, they do not replace direct, personal feedback from you.

### The grades dilemma

One constant struggle for faculty, and one frequent source of frustration of students, is keeping grades up-to-date. Of course, students would like to know how they did on a 20-page term paper as soon as they hit the submit button. In other words, there is a natural tension between the fast grading that students want and what faculty can reasonably do. The reality is also that students are often not appreciative of fast turnaround times on grading but are quick to complain when faculty are slow to return grades. Faculty must find a way to provide students with the grading feedback they need while also maintaining a reasonable workload.

There are a few things you can do to improve the dilemma:

**First**, make expectations for grading clear from the beginning. For example, if you set assignments to be turned in on the same day each week, you could tell students to typically expect their graded assignment on a certain day after that. You then know your grading tasks for the week and can schedule your work accordingly, and students will not be asking you for their grade before that time (hopefully). For bigger, more complex assignments, give students an idea of when to expect

the assignment will be graded. The lack of knowing what to expect can create frustration for students. However you do it, students will be less annoyed, and you will get fewer questions, if everyone knows what to expect.

**Second**, create immediate feedback opportunities throughout the course. Low-stakes quizzes as described earlier, for example, can be computer-graded and provide an immediate grade to students. The ability to get quick feedback on how they are doing in the course, even if it is just on low-stakes quizzes, helps students understand better how they are doing in the course and helps create a feeling that the instructor is providing feedback.

**Third**, if it turns out that you are going to take longer than expected to return a grade to students, let them know, and tell them when you hope to have the grade ready. A lack of communication about what to expect can create a lot of frustration for students and irritation with the instructor.

The reality is that keeping things graded is always a challenge for instructors, but that is just part of the job. Instructors should work to provide students with graded feedback within a reasonable amount of time throughout the course. Although doing so will not guarantee that students will show their appreciation, you can be sure that slow grading will result in low student regard for an instructor.

### The importance of feedback

As discussed earlier, it is important for learning purposes that students receive meaningful feedback from you throughout the course. But that feedback has the added benefit of helping students feel connected to you and the course. As you provide your feedback about student work, strive to make it personable and supportive. Remember that students in online courses do not see your face and your smile as you provide feedback. They need to get a sense that you care about their progress in the course. Make comments on how they are progressing, offer encouraging support (and correction when necessary), use their name in communications, and don't be afraid to be funny. In other words, be human.

### Getting feedback yourself

A final component of a good online course we have not yet discussed is getting formative feedback yourself from students on how the course is going. This formative assessment should take place early in your course, two or three weeks in, so you can make adjustments or respond to students' concerns early enough to be able to do something about it. Or you could ask for feedback on each module

of the course as you go along. What did students like best and least about the module? Was there anything that was not clear? What could be done to improve the module? This data can then be used by you to make some tweaks in upcoming modules and to improve the course for the next semester. The feedback can take the form of a short survey, a discussion, or simply the form of an email asking students to tell you about specific parts of the course.

### Working toward continuous improvement

You should also make notes yourself as a course progresses. Even a well-designed course will need adjusting here and there as you teach the course, get student feedback, and recognize yourself where things could be better. These adjustments might be as simple as rewriting one sentence for clarity in an assignment or as involved as reworking an entire module. When you are teaching a course, it may not be possible to make those changes immediately, so it is important that you make notes as you go. Refer to those notes when you are ready and able to make modifications for the next semester.

### Final thoughts about teaching online

Teaching is a profession with a long, noble history, but teaching online is a relatively new endeavor that is still in its infancy. Undoubtedly, we have a long way to go in learning the best way to teach online. The principles presented here represent current thinking about what works and what doesn't in online instruction. As you develop your skills as a course designer as well as an online instructor, you will certainly come across some ideas, methods, and procedures that work better for you than others, and perhaps you will invent methods or discover principles on your own. Being a part of this profession means being a part of the process of developing our body of knowledge about what works and what doesn't. That means sharing what you learn and looking for opportunities to learn from others. Let us strive together to make student learning as successful as we can.

### Notes

[1]Self-paced learning does have its place. Some content can be learned through well-constructed modules that allow students to watch/read/interact at their own pace; test their learning through self-evaluation; complete an assessment, and move on to the next topic. This seems to work best with knowledge-level facts

and concepts, such as learning the steps of a procedure or definitions of words. When higher-order reasoning is important, the interaction students receive through a regular course is best. You might consider developing some self-paced modules for use inside regular courses.

[2] The **Introduction to the Course module** should be called exactly that name. Students are directed in the required GeorgiaVIEW tutorial to complete the module by that name by the end of the first week of the semester. By making the first module consistent across all courses, you minimize any confusion about what should be completed and excuses for not completing it. The module should include an introduction/overview of the course, a little about you ( the instructor), the course syllabus, and at least one activity for the student to complete, such as a discussion post, syllabus quiz, or just an mail to you. In other words, it should be something for students to actually do to demonstrate they are in the module. Completion of this module and the activity is how you determine attendance in your course to report to the Registrar at the end of the first week of the semester. This module and the method of attendance reporting is a requirement for all fully online courses at BSC. This module does not preclude you from having a Week 1 module as well that might have other content in it.

## Further Reading and Resources

*General online teaching articles*

Principles of Instruction: Research-Based Strategies That All Teachers Should Know
http://www.eric.ed.gov/PDFS/EJ971753.pdf

Understanding by Design Framework
http://www.ascd.org/ASCD/pdf/siteASCD/publications/UbD_WhitePaper0312.pdf

http://www.adec.edu/admin/papers/distance-teaching_principles.html

Innovative Course Building Group http://icbg.wordpress.com/

Seven Principles for Good Practice in Undergraduate Education
http://teaching.uncc.edu/articles-books/best-practice-articles/instructional-methods/7-principles

Tips and Tricks for Teaching Online: How to Teach Like a Pro!
http://www.itdl.org/journal/oct_04/article04.htm

A Primer on Writing Effective Learning-Centered Course Goals
http://www.designlearning.org/wp-content/uploads/2010/03/Writing-Good-Learning-Goals-by-Robert-Noyd-US-Air-Force-Academy.pdf

*Using Groups*

Evaluating Online Group Work
http://www.uwex.edu/disted/conference/Resource_library/proceedings/06_4136.pdf

Seven Problems of Online Group Learning (and Their Solutions)
http://www.ifets.info/journals/10_4/22.pdf

Online Groups and Social Loafing: Understanding Student-Group Interactions
http://www.westga.edu/~distance/ojdla/winter84/piezon84.htm

*Writing learning objectives*

Tonya Strickland's Learning Outcomes site
http://fsweb.bainbridge.edu/tstrickland/outcomes.htm

The ABCDs of Writing Instructional Objectives
http://www.personal.psu.edu/bxb11/Objectives/ActionVerbsforObjectives.pdf

Task-Oriented Questions based on Bloom's Taxonomy
http://think.stedwards.edu/cte/sites/webdev1.stedwards.edu.cte/files/docs/BloomPolygon.pdf

*Discussions*

Facilitating Online Discussions Effectively
http://www.itma.vt.edu/modules/spring11/efund/lesson7/Rovai2007FacilitatingEffectiveOnlineDiscussions.pdf

Facilitating Discussions
http://www.outreach.washington.edu/teaching/online_handbook_files/facilitateDiscussions.html

Generating and Facilitating Engaging and Effective Online Discussions
http://tep.uoregon.edu/technology/blackboard/docs/discussionboard.pdf

Asking More Effective Questions
http://cet.usc.edu/resources/teaching_learning/docs/Asking_Better_Questions.pdf

Strategies for Engaging Students in Discussion
http://ets.tlt.psu.edu/learningdesign/crafting_question/strategies

Some Examples of Discussion Questions
http://www.uwosh.edu/d2lfaq/teaching-resources/discussions/discussion-question-tips-and-pointers

*Learning activities*

Online Teaching Activity Index: http://www.ion.uillinois.edu/resources/otai/

*Engaging Students*

What the Best Online Teachers Should Do:
http://jolt.merlot.org/vol7no4/brinthaupt_1211.htm

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# Appendix A

## Writing Student Learning Outcomes

Writing student learning outcomes, as described in this text, is all about being clear about what students should be able to do as a result of a course. It is a tool to help the course designer ensure that everything in the course is actually leading to outcomes that really matter. The basic process is pretty simple, although thinking through what those outcomes need to actually be can take a little time. The goal is clarity of purpose and specificity.

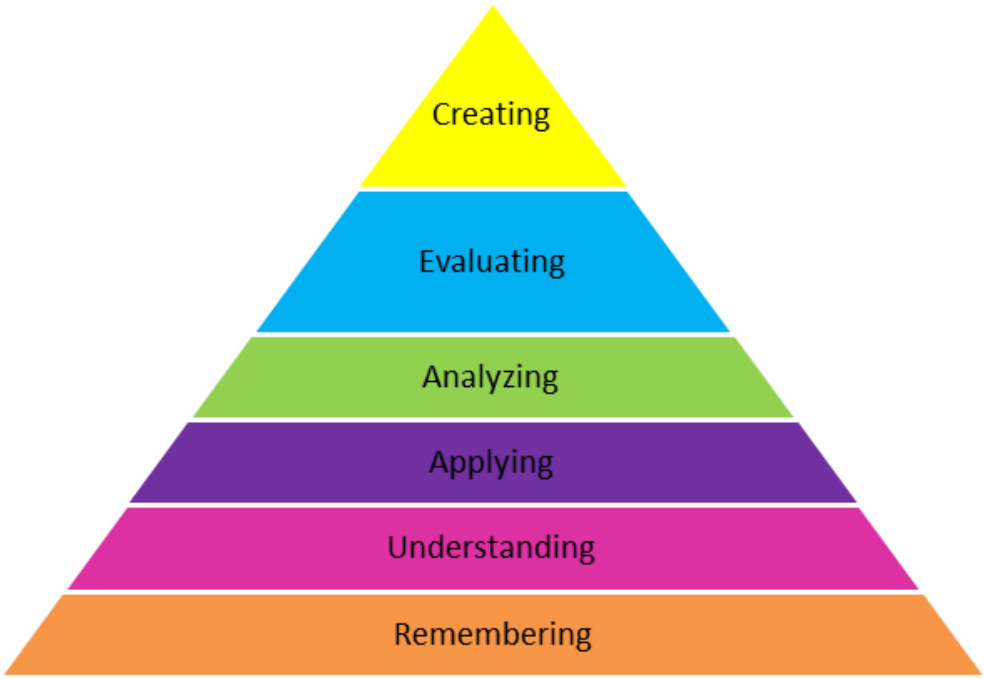
It has long been argued that outcomes should be very specific and measurable (Mager, 1984) and that outcomes should be stated overtly rather than covertly. That is, they must be observable so they can be measured. "Students will know ... or students will become aware of ... or students will understand ...." use covert verbs that are not directly observable, and therefore, provide no direction for how they will be assessed.

State your outcome in an overt way so that your assessment is directly observable and measurable. So, for example, instead of "students will **know,**" you write, "students will **define**" or "students will **name** each part ...," etc. I can measure whether or not they define the term correctly, and I can measure if they name each part correctly. Notice again that such specific outcomes give you direction for how they will be assessed. And also notice that writing such outcomes requires that you clearly think through what it is that is important for the student to be able to do. This helps guide you in creating a course that meets meaningful learning outcomes.

If you have been teaching for a while, you likely have heard of Bloom's taxonomy a million times, and for good reason: it is a valuable tool. The more recently revised version is even more useful. If you are not familiar with it, take a look at the chart below. In short, the taxonomy provides us a way to think through what it is that students should be able to do with each concept or skill in a course. Do you want simple recall of facts or higher-level thinking that requires students to use concepts? For example, some instructors assess students only on the bottom level of understanding: remembering. Can students recall, or remember, basic facts and concepts? "List the three steps ...," "Name the theory ...," "Who conquered who ...?"

While knowing these basic concepts is often important, it is only a part of the picture of what you want students to learn. The taxonomy helps focus your thinking as you strive to get students into higher levels of thinking. Is just listing the three steps really all you want students to be able to do? Most likely, it is not. You want them to recognize the steps in action; to be able to know when to apply the steps; to distinguish between two processes based on these steps; and to actually do the steps themselves. See the difference between these outcomes and just remembering? When you use this taxonomy, or any of the other guides out there, it helps you create learning outcomes that provide direction for your course.

**Revised Bloom's Taxonomy**




The chart below takes each level of the taxonomy and describes the purpose as well as some action verbs you might use to write a learning outcome geared toward that level of knowledge. It is not necessary that you understand the theory behind this taxonomy. Just use it to help focus your own thinking about what students should be able to do with the concepts of your course.

| Levels of Knowledge | Purpose | Action Verb |
|---|---|---|
| **Remembering**: Can the student recall or remember basic information? | **To memorize and recall facts from memory** | Key Words: define, duplicate, list, memorize, recall, repeat, reproduce, state |
| **Understanding**: Can the student explain ideas or concepts? | **To understand and interpret meaning** | Key Words: classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase |
| **Applying**: Can the student use the information in a new way? | **To apply knowledge to new situations** | Key Words: choose, dramatize, demonstrate, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write |
| **Analyzing**: Can the student distinguish between the different parts? | **To break information down into its parts and determining how the parts relate to each other** | Key Words: appraise, compare, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test |
| **Evaluating**: Can the student justify a stand or decision? | **To evaluate or make judgments according to certain criteria** | Key Words: appraise, argue, judge, defend, select, support, value, evaluate |
| **Creating**: Can the student create a new product or point of view? | **To combine information into something new** | Key Words: assemble, construct, create, design,develop, formulate, write |
| Adapted from: http://www.odu.edu/educ/roverbau/bloom/blooms_taxonomy.htm | | |

For more about Bloom's taxonomy, see:
http://projects.coe.uga.edu/epltt/index.php?title=Bloom%27s_Taxonomy

### Writing outcomes the ABCD way

The ABCD method of writing outcomes has become a standard approach (Heinich, et al., 1996) and may or may not be useful to you in your course design. But understanding it can help shape your thinking about the importance and value of building robust outcomes. This method requires four components in each outcome:

1. **Audience (A)** – Who? Specify who is learning. In all cases in a college course, it is students. The main point here is that naming the student forces you to define what students will be doing, not what the instructor will be teaching.
2. **Behavior (B)** – What? Here is the specific, overt, observable part. What will students do?
3. **Condition (C)** – How? Under what conditions will the student exhibit the behavior? For example, "Given the periodic table, students will identify the mass and atomic number of any element." Or, "Given a list of symptoms, the student will identify the respiratory illness of a patient for each major respiratory disease." Specifying the condition is not always necessary or even possible, but you may want to consider adding conditions to some of your outcomes to more richly define them. This takes you a long way toward developing your assessments and learning activities.
4. **Degree (D)** – How well should they do this? Do you expect 100% mastery or some other level? Most often, the degree is set for mastery learning where students cannot proceed until the set level is achieved. In most college courses, there is no specific degree set. Students get grades based on the degree to which they achieve an outcome.

Here's a complete example: Given a German language sentence in past tense (**Condition**), the student (**Audience**) will rewrite the sentence in future tense (**Behavior**) with no grammatical errors (**Degree**).

Note how incredibly specific this learning outcome is. Both students and instructors know exactly what the outcome should be and how to prepare for it. But as described above, most college classes would not specify the degree because students will continue even if they do not achieve that level of mastery. In the above example, we typically would not say that students have not achieved the outcome if they make a single error. They would simply get a grade based on the degree to which they met that outcome.