MAGNA ONLINE SEMINARS

Five Steps to Improve Your Online Courses and Instruction

Wednesday, June 10, 2009

1:00 PM – 2:15 PM (Eastern)
12:00 PM – 1:15 PM (Central)
11:00 AM – 12:15 PM (Mountain)
10:00 AM – 11:15 AM (Pacific)
(Times listed refer to daylight saving time.)

Presented by:

Patti Shank, Ph.D.

Today's presenter:

Patti Shank, Ph.D., CPT, is the president of Learning Peaks LLC, an instructional design consulting firm that provides training and performance support solutions to government, corporate, and higher education clients. She was a contributing editor for Online Learning Magazine, is the co-author of Making Sense of Online Learning, and is the editor of The Online Learning Idea Book. She has a Ph.D. in instructional design and is a Certified Performance Technologist.

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Five Steps to Improve Your Online Courses and Instruction

June 10, 2009
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FIVE STEPS TO IMPROVING YOUR ONLINE COURSES AND INSTRUCTION

Patti Shank, PhD, CPT
Learning Peaks

patti@learningpeaks.com

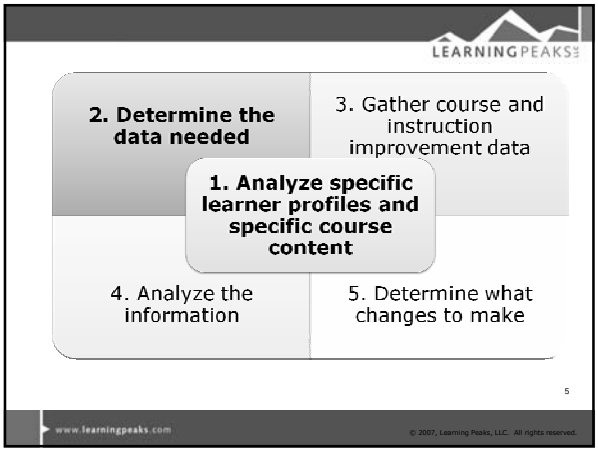
Session Objectives

Cultivate an *informal (*but not halfhearted) and *local* continuous improvement approach to designing and maintaining online courses.

1. **Analyze specific learner profiles and specific course content** to discern learner-specific and content-specific challenges for teaching and learning online
2. **Determine the data needed** to inform online course and instruction improvement efforts

Session Objectives

3. **Gather course and instruction improvement data**
4. **Analyze the information** (and confirm if needed)
5. **Determine what changes to make** and how you'll evaluate them (to inform the next round)



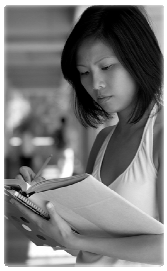
Poll: Why are *you* interested in improving your courses and instruction? (Select all that apply)

A. To better support students
B. I'm expected to do this
C. I hope that this will reduce some of the hassles of teaching online
D. I need to address specific problems
E. Other: Post answer in presenter chat

Fix while course is in progress

… frustrated?
… need help?
… understand?
… likely to drop?

Fix next time I teach this course



… sequencing?
… resources?
… examples?
… additional practice?

"Global" metrics

- Quality Matters http://qminstitute.org/home/Public%20Library/About%20QM/RubricStandards2008-2010.pdf
- Rubric for Online Instruction http://www.csuchico.edu/tlp/resources/rubric/rubric.pdf
- Qualities of Exemplary Online Courses http://www.ion.uillinois.edu/institutes/presentations/040202/quality_files/frame.html
- Elements of Quality Online Education http://www.sloan-c.org/publications/books/vol5summary.pdf
- Establishing A Quality Review For Online Courses http://net.educause.edu/ir/library/pdf/EQM0635.pdf

Informal *and* local

Cultivate an *informal (*but not halfhearted) and *local* continuous improvement approach to designing and maintaining online courses

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Informal

- No…
- Faculty…
- The focus is on…

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Local

- Can take into account…
- Owned by…

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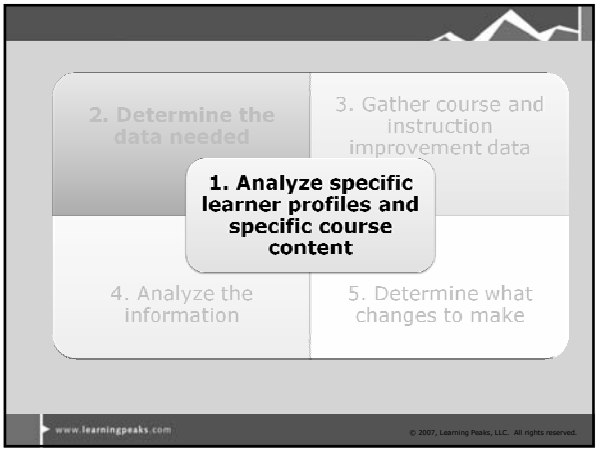
Not a replacement for formal and global improvement efforts.



What are the unique learning and support needs of:

1) ***your students***
2) learning ***this content***
3) while ***learning online?***

These *are the best things to* evaluate and improve on an informal and local basis.

Factors	Example Learning and Support Needs	
1. Your students	Age Background Previous knowledge Work experience	Life commitments Social learning needs
2. Your content	Fear Difficulty of content Existing knowledge	Support needs Interaction needs
3. Learning online	New to distance learning Fear Technology skills	Access Staying on task

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My online instructional design courses

Factors	Learning and Support Needs	
1. My students	•Mid career adults •30-50+ •Work full time	•New career, switch career, expand career •Technology skills vary from none to expert

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My online instructional design courses

Factors	Learning and Support Needs	
2. My content	•Content is harder than it seems •Tech folks versus learning folks	•Support for basic technology skills •Interaction needs vary

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My online instructional design courses

Factors	*Learning and Support Needs*	
3. Learning online	•Many are new to learning online	•Complete assignments at night •Travel schedules

Consider the unique learning and support needs of *your* situation.

Factors	*Example Learning and Support Needs*		*Yours?*
1. Your students	Age Background Previous knowledge Work experience	Life commitments Social learning needs	
2. Your content	Fear Difficulty of content Existing knowledge	Support needs Interaction needs	
3. Learning online	New to distance learning Fear Technology skills	Access Staying on task	

What are the unique learning and support needs of *your* students?

Post answers in the **presenter chat.** Also explain why your students have these needs.

Factors	*Learning and Support Needs*	
1. Your students	Age Background Previous knowledge Work experience	Life commitments Social learning needs

LEARNINGPEAKS

What are the unique learning and support needs for *your* content area?

Post answers in the **presenter chat.** Also explain why your content area creates these needs.

Factors	*Learning and Support Needs*	
2. Your content	Fear Difficulty of content Existing knowledge	Support needs Interaction needs

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LEARNINGPEAKS

Typical learning and support needs of online students

- Need to be engaged early and often
- Need to quickly get un-lost and un-confused
- Adequate practice
- Adequate feedback
- Support for harder concepts

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LEARNINGPEAKS

What are the unique learning and support needs of *your* students, learning *your* content *online*?

Post answers in the **presenter chat.**

Factors	*Learning and Support Needs*	
3. Learning online	New to distance learning Fear Technology skills	Access Staying on task

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Priorities

Changes to Support:	*Example Priorities*
Learners	Enrollment Retention Scores Other
Content	
Learning Online	

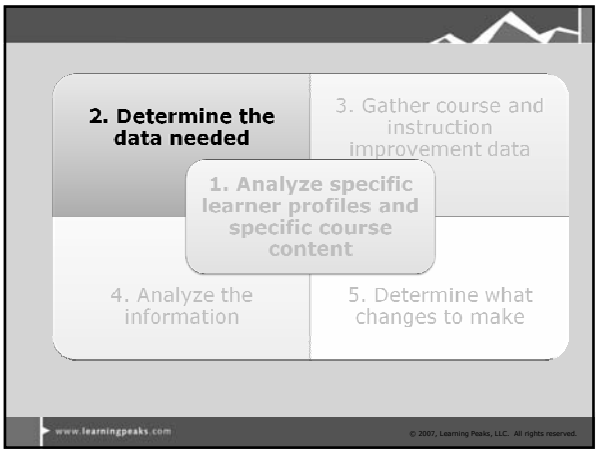
My online instructional design courses

Changes to Support:	*My Priorities*
Learners	Retention (in course and program) Real world skills
Content	
Learning Online	

Are there other priorities to consider when making improvements?

Post answers in the **presenter chat.**

Changes to Support:	*Example Priorities*	*Other Priorities?*
Learners	Enrollment Retention Scores Other	
Content		
Learning Online		


2. Determine the data needed
3. Gather course and instruction improvement data
1. Analyze specific learner profiles and specific course content
4. Analyze the information
5. Determine what changes to make
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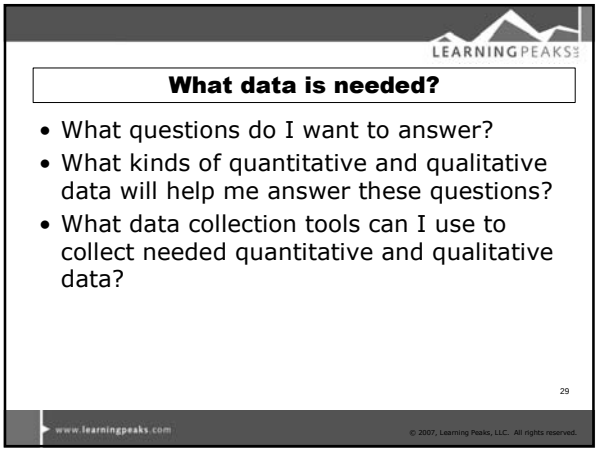
LEARNINGPEAKS
What data is needed?
• What questions do I want to answer?
• What kinds of quantitative and qualitative data will help me answer these questions?
• What data collection tools can I use to collect needed quantitative and qualitative data?
29
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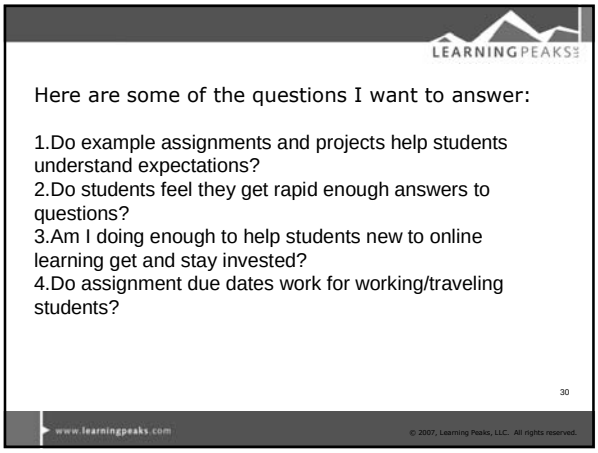
LEARNINGPEAKS
Here are some of the questions I want to answer:
1.Do example assignments and projects help students understand expectations?
2.Do students feel they get rapid enough answers to questions?
3.Am I doing enough to help students new to online learning get and stay invested?
4.Do assignment due dates work for working/traveling students?
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Take a moment to list some questions you want to answer to inform your courses and instruction.

When ready, post a few of the questions in the **presenter chat.**

Type	*Example Data Sources*
1. Quantitative (how much) 	Enrollment numbers Completion rate Scores Grades Course metrics Surveys (closed-ended questions)
2. Qualitative (why) 	Surveys (open-ended questions) Interviews Grades Observations Project quality

Take a moment to write down some data sources you can use to answer your questions.

When ready, post a few of these in the **presenter chat.**

Type	*Example Data Sources*	
1. Quantitative (how much)	Enrollment numbers Completion rate Scores	Grades Course metrics Surveys (closed-ended questions)
2. Qualitative (why)	Surveys (open-ended questions) Interviews	Grades Observations Project quality

What data sources would be useful for finding out if students are at risk for dropping the course?

Post your answers in the **presenter chat.**

Type	*Example Data Sources*	
1. Quantitative (how much)	Enrollment numbers Completion rate Scores	Grades Course metrics Surveys (closed-ended questions)
2. Qualitative (why)	Surveys (open-ended questions) Interviews	Grades Observations Project quality

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Will this data be useful?

ECON 275 prepared me for ECON 340

- ○ Strongly disagree
- ○ Disagree
- ○ Agree
- ○ Strongly agree

35

Will this data be useful?

ECON 275 prepared me for ECON 340

- ○ Strongly disagree
- ○ Disagree
- ○ Agree
- ○ Strongly agree

If you answered disagree or strongly disagree, what changes should be made to *better* prepare students for ECON 340?

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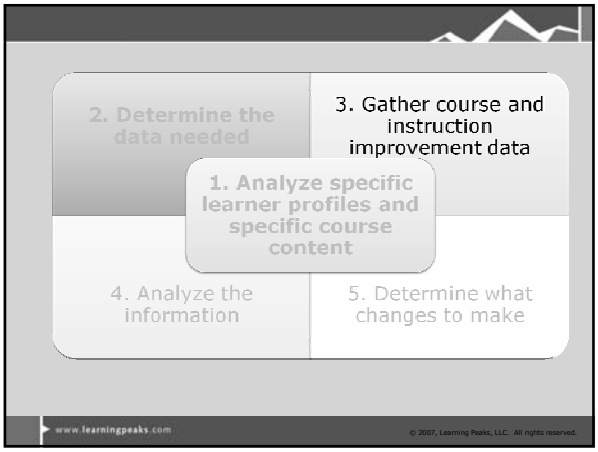
Precision

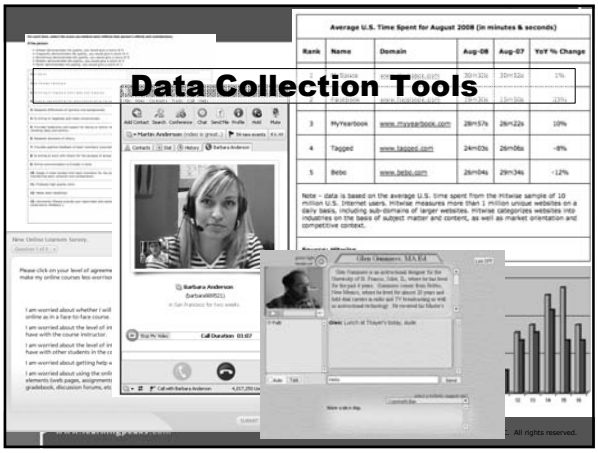
Question: How often do you log into the course?

1: Never, Lots

2: <2x/wk, 2-3x/wk, 4-5x/wk, 6+x/wk, etc.

3: Review course login information for precise information, including days, time of day, pages visited…

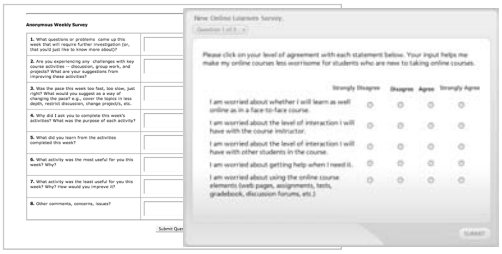




Data collection tools: Information forms

Data collection tools: Interviews

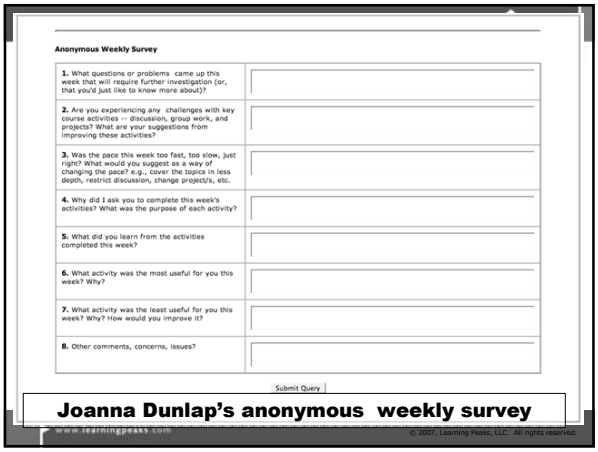
Data collection tools: Survey questions and forms



Student "worry" level survey

(Weeks 1, 2, 5, and 9)
I am worried about:
a.Using the course management system
b.Knowing what to read and do (assignments)
c.Getting timely help
d.Communicating with the professor and students
e.Other: (Explain)

What can I do to reduce your worries?

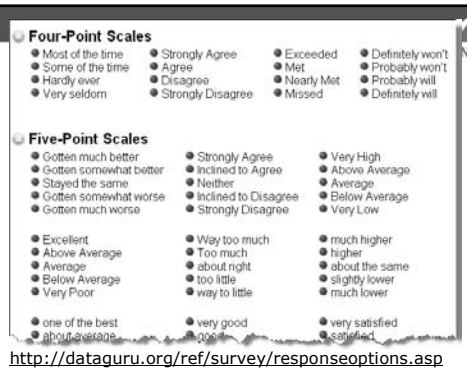


Anonymous Weekly Survey

1. What questions or problems came up this week that will require further investigation (or, that you'd just like to know more about)?	
2. Are you experiencing any challenges with key course activities -- discussion, group work, and projects? What are your suggestions from improving these activities?	
3. Was the pace this week too fast, too slow, just right? What would you suggest as a way of changing the pace? e.g., cover the topics in less depth, restrict discussion, change project/s, etc.	
4. Why did I ask you to complete this week's activities? What was the purpose of each activity?	
5. What did you learn from the activities completed this week?	
6. What activity was the most useful for you this week? Why?	
7. What activity was the least useful for you this week? Why? How would you improve it?	
8. Other comments, concerns, issues?	

Submit Query

Joanna Dunlap's anonymous weekly survey



Four-Point Scales

Most of the time	Strongly Agree	Exceeded	Definitely won't
Some of the time	Agree	Met	Probably won't
Hardly ever	Disagree	Nearly Met	Probably will
Very seldom	Strongly Disagree	Missed	Definitely will

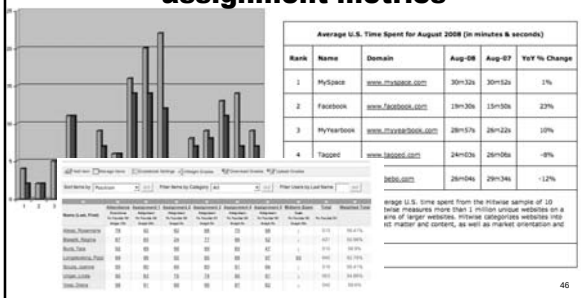
Five-Point Scales

Gotten much better	Strongly Agree	Very High
Gotten somewhat better	Inclined to Agree	Above Average
Stayed the same	Neither	Average
Gotten somewhat worse	Inclined to Disagree	Below Average
Gotten much worse	Strongly Disagree	Very Low
Excellent	Way too much	much higher
Above Average	Too much	higher
Average	about right	about the same
Below Average	too little	slightly lower
Very Poor	way to little	much lower
one of the best	very good	very satisfied
about average	good	satisfied

http://dataguru.org/ref/survey/responseoptions.asp

Survey response scales

Data collection tools: Usage and assignment metrics



Average U.S. Time Spent for August 2008 (in minutes & seconds)

Rank	Name	Domain	Aug-08	Aug-07	YoY % Change
1	MySpace	www.myspace.com	30m32s	30m52s	1%
2	Facebook	www.facebook.com	19m30s	15m50s	23%
3	MyYearbook	www.myyearbook.com	28m57s	26m22s	10%
4	Tagged	www.tagged.com	24m03s	26m06s	-8%
		bebo.com	26m04s	29m34s	-12%

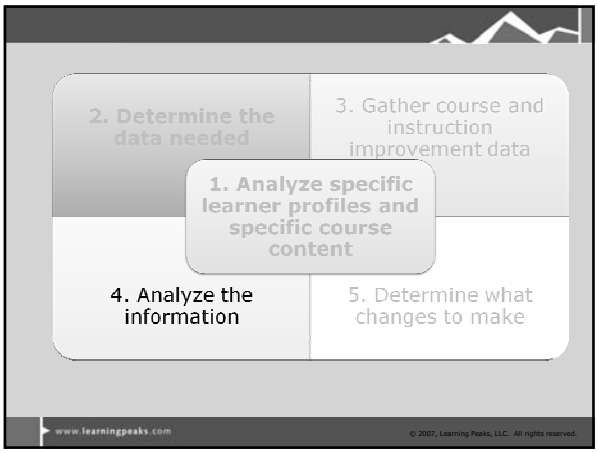
erage U.S. time spent from the Hitwise sample of 10 twise measures more than 1 million unique websites on a ame of larger websites. Hitwise categorizes websites into nt matter and content, as well as market orientation and

Data collection tools: social presence tools

Which data collection tools do you think might be useful for answering *your* questions? Why?

Post your answers in the **presenter chat.**

Phone Email Instant messaging/chat Social networking (Twitter, etc.) Course usage data	Assignment data End-of-course surveys Ongoing (weekly/bi-weekly) surveys Other: (Explain)



LEARNINGPEAKS

Analysis methods

- Quantitative: Typically statistical analysis (Excel/SPSS)
- Qualitative: Typically text analysis (Nvivo/Excel)
- Other: Informal

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LEARNINGPEAKS

Would you edit timing based on this result? How?

Post answers in the **presenter chat.**

Question: How would you rate the timing (due dates) of course assignments?

1=quite problematic 2=somewhat problematic
3=minimally problematic 4=no t problematic

Mean = 2.83

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Would you change timing based on these answers? How?

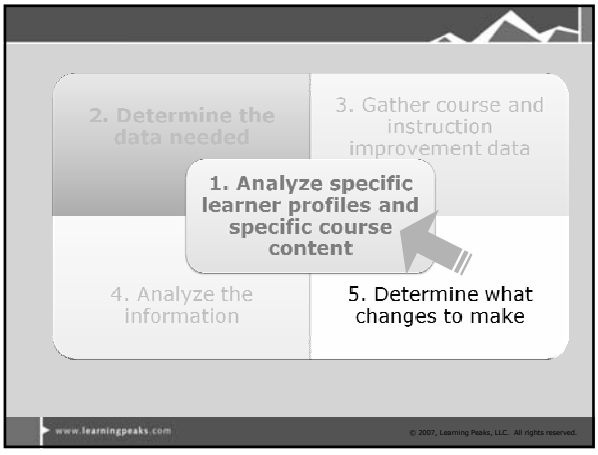
Post answers in the **presenter chat.**

Question: How could the timing of assignments be improved to meet your needs?

Make all assignments due on the same day each week No "late" deductions ☺ It's fine the way it is Give us a range of dates where the assignment can be handed in Tuesday is the best day of the week for me	Have all assignments due at the end of the semester Monday is good because then I have the weekend Mid week is hard Not end of the week!!! I can only work on assignments on Friday and Saturday.

What should you do if the data doesn't provide clear direction? Or conflicting direction?

Post answers in the **presenter chat.**



LEARNINGPEAKS

Which changes to make?

- Priorities
- Student success
- Faculty success
- Organizational success

LEARNINGPEAKS

Recap

- Base informal and local improvement efforts on the needs of *your* students, learning *your* content, while learning *online.*
- Determine the specific questions that you want to answer (to inform improvement efforts).
- Collect a mix of quantitative and qualitative data.

LEARNINGPEAKS

Recap

- Make sure that the data you collect and the tools you use to collect it will yield useful information.
- Think outside the box on data collection tools.
- Improvements are meant to be iterative.

LEARNINGPEAKS

List one thing you can implement immediately from session

Post answers in the **presenter chat.**

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Amazon.com

Available:
Wiley.com
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LEARNINGPEAKS

THANKS!

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IDEAS FOR EFFECTIVE ONLINE INSTRUCTION

SUPPLEMENT
Online Seminar —"Five Steps to Improving Your Online Courses and Instruction"

If You Build It (or Link to It), Can They Use It?

By Patti Shank, PhD, CPT

In the last few articles, I have discussed using media in online courses and how to overcome numerous obstacles to getting the right kinds of media for your online courses. This month, I'll finish the series by discussing some learner-centered obstacles that need to be considered so the media elements you build or link to will have the desired impact.

Media benefits

Media, such as pictures, charts, animations, audio, and video, have natural characteristics that can be exploited to help learners learn and think critically about the content being taught. For example, video programs dramatizing historical events can help learners analyze factors that may have led to these events. Computer animations of human body processes, such as digestion, help medical students "see" body processes so they can think more critically about digestive conditions.

In online courses, where text (in books, articles, or on the screen) is often the primary content delivery mode, media can make the content come alive. Imagine designing an online course in which one of the course modules is about the history of the Internet. You might provide a text-based timeline of the events leading up to wide adoption of the Internet. Now add photos, bios, and audio clips of Internet historians and pioneers talking about their contributions in the early days of the Internet and ask learners to discuss how the skills of this divergent group of people led to the Internet as we know it today. This is much more engaging than the timeline alone and a good way to help learners think critically about the people and events leading up to the Internet as we know it today.

Media obstacles

There are some common learner-centered limitations that need to be considered when using media in your online courses. Two of the biggest are access (which makes viewing and interacting with media possible or not) and the lack of reliability of outside links.

Got access?

You may build it, but learners may not be able to access it. Bandwidth, or the amount of data that can fit through the connection between the server and the user (learner) at one time, can be a real problem. The more media you use and the more bandwidth these media elements require, the more potential hassles there are. Learners may need to wait for high-bandwidth media data such as video to download and if they are trying to fit coursework into an already hectic life, waiting a long time may be extremely frustrating or even a deal breaker.

In most cases, learners need fast Internet connections (such as DSL, cable mode, or T1 access) to view and interact with online media. Some learners may have fast connections at work but not at home. Some are unable to listen to audio at work, though, because they either do not have a sound card or are unable to use headphones (so they can listen without annoying everyone around them). And they may be unable to download needed media players (for example, QuickTime or Flash) because of their company's IT restrictions.

When learners do not have fast Internet access at work *and* at home, online learning capacity is diminished. Work and family schedules are often hectic and the ability to jump into schoolwork from anywhere is often critical to online learners' success.

To do: Do a reality check on the technology requirements for using the media you want to produce or link to. Select media that most learners can use. (But it's usually unwise to take a "lowest common denominator" approach.) Start a discussion about whether the technology requirements are adequate. For example, should fast access at work and home as well as the ability to download and use new players as they become available be required? Help learners determine if they have adequate access to be successful and help them think about how to get additional, adequate access. (For example, many

CONTINUED ON PAGE 2 >>

libraries and some fast-food restaurants, coffee shops, and laundromats provide free access.)

Got links?

One of the recommendations I made in a previous article was to overcome costs and development time by linking to existing media on the Internet. I stand by that advice, but you should expect that some of the links you select will not work when learners try to use them. Some will be down because of server problems, and others will have changed URLs as organizations update their websites. And others will simply vanish. Check all the links before your course materials go live, but remember that some of the links that you checked yesterday may be problematic today. That's just the way it is.

Another problem with linking to existing media on other sites is that some online instructors provide *too many* resource links. A long list of links, to many learners, is a recipe for overload and anxiety before the first click. Learners need guidance and focus when using links and the media elements they may contain.

To do: Consider recommending a website download tool such as Web Whacker (*www.bluesquirrel.com/products/webwhacker/*) so learners can download online materials in case they become unavailable. **Caveat:** The purpose of this tool is for students be able to view websites offline, not to be able to share these files with others. Ask the owner of the materials for permission if you want to share them and get advice from your legal department to make sure you are not infringing on copyright laws.

Find some really good outside resources, but don't link to the universe. Annotate these links so learners know exactly what to expect (what they will see/hear/do, time needed, media players needed). Provide very clear instructions on what students should look for while using the media (for example, instruct them to observe how a graph changes over time as more data points are added) and what to do afterward (for example, answer discussion questions or write a position paper).

A good instructor helps learners make personal meaning out of the course content, activities, and interactions. Media can be very helpful toward this end, but first, the learner needs to be able to access and use the media without getting frustrated or overloaded.

Next month, I'll begin a new series on ways to evaluate your online courses.

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Course and Instructor Evaluation: If It's So Good, Why Does It Feel So Bad?

By Patti Shank, PhD, CPT

Most of us would agree that continual improvement is a good idea. For example, the manufacturer of my MP3 player needs to make certain options easier. But I'm thrilled that recording a television show using my DVD recorder is easier and more intuitive than recording a television show on my old VCR.

One of the reasons that continual improvement in our jobs doesn't feel as good as continual improvement in the electronics we buy is that improving humans is hard. And it's far too often done in a hurtful way and for the wrong reasons.

Evaluation, simply put, is about measuring value. That sounds straightforward, but it really isn't, because it's often hard to figure out what to measure and how to measure it. For example, when you are getting ready to purchase a new car, what makes it more valuable, less valuable, or not valuable at all? Well, that depends on what is important to the person doing the evaluating.

If evaluation sounds good in theory but feels bad in practice, it may be that you or others are operating under some common misconceptions.

Misconception: Outcomes are the only things worth measuring.

Reality: Outcomes, such as numbers of new courses developed, enrollments, retention, and satisfaction levels, are important and they should be measured. But it's also important to evaluate critical processes, such as support for faculty course development, relationships between course designers and developers and faculty, and student ability to get help as needed.

The processes that are involved in producing and delivering online courses and instruction should be evaluated alongside the outcomes of these processes so it's possible to see what changes would allow for *better* outcomes.

I recently worked with an institution that had an adversarial relationship between faculty and the online course development team,

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and both spent time pointing fingers to explain why the results weren't optimal. What they didn't see was that this adversarial relationship created bottlenecks and course development problems. Obvious solution? Build a better process and fix the damage caused by the old one.

If the process of producing and delivering online courses and instruction is problematic, courses and instruction are also likely to be problematic—and these problems are unlikely to improve without improving the process. So, while evaluating outcomes, it's also important to evaluate the processes that impact those outcomes. You will find inefficiencies, poor relationships, rework, contention, and more that are making better outcomes difficult or impossible.

Misconception: Evaluation is a CYA activity to be endured.

Reality: The purpose of evaluation should be to continuously improve, not to check off boxes on a checklist and then breathe a sigh of relief until evaluation needs to be done again.

Most higher education institutions conduct end-of-course evaluations, but this kind of evaluation often doesn't result in significant improvements to courses and cannot impact courses in progress. Hmielski and Champagne, in an article titled "Plugging in to Course Evaluation" (http://technologysource.org/article/plugging_in_to_course_evaluation/), call this consider-what's-wrong-after-it's-over approach an "autopsy approach" to course evaluation.

Because end-of-course evaluations may be required but often aren't sufficient, some online instructors have begun to implement weekly or bimonthly anonymous evaluations by students so they can make changes to the course and the process in the here and now. For example, I adopted a weekly, anonymous course evaluation technique that my colleague Joni Dunlap at the University of Colorado Denver uses (an explanation of the technique is in *The Online Learning Idea Book*, published by Pfeiffer). This continual improvement process could be implemented using a Web form or an online survey tool such as Survey Monkey (www.surveymonkey.com)

Bottom line? The purpose of evaluating online courses and instruction should be improvement, not pain. And improvement efforts are most successful when they are valuable to all concerned. So analyze whether the misconceptions described in this article apply to your institution—and if some do, consider how to change them for the better.

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What to Evaluate, Part 1

By Patti Shank, PhD, CPT

Continual improvement efforts are often implemented poorly, leaving the folks being "improved" feeling hostile and unappreciated. But improvement efforts do not have to be foolish or punitive.

If we want to improve online programs, courses, and instruction, we have to first determine and gain consensus around the goals for these efforts, select metrics that will tell us what we want to know, and intelligently analyze these metrics for clues about needed changes. Sounds simple, but it isn't.

The purpose of evaluation

Evaluation is a process by which data is collected and analyzed in order to determine if goals are being or have been achieved, and to determine what actions to take based on the analysis.

"Measures" or "metrics," are selected and used to measure the degree to which goals are being or have been achieved. So, for example, if I want new online learners to be comfortable learning online by the middle of their first online course, I need to determine how I will measure their comfort level. Then I can use the data I gather to determine what to do if this goal isn't achieved.

Many higher education institutions use student satisfaction metrics at the end of a course to measure of course and instruction quality. But I'd argue (loudly) that these metrics don't measure quality, at least not by themselves. An instructor with an easier and more fun course is likely to get higher end-of-course ratings than another instructor whose course is more rigorous and difficult, all other things being equal.

When to evaluate

Evaluation efforts should be done before, during, and after online programs and courses have been implemented. The table below shows how evaluation efforts can be made, and lists questions that are typically answered during each stage.

It is common, but unfortunate,

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that institutions evaluate programs, courses, and instruction only after they have occurred and not in a way that provides the information needed. And most online programs, courses, and instruction are not evaluated regularly in order to continuously improve them.

No matter how good an online program, course, or instructor is, time changes many things, including the need for the program; events; technologies; and regulations that impact content, activity, and assessment needs, as well as student demographics and other things. Here's an example. The content in finance-related programs such as accounting and business needs to change regularly because of changes in regulations and laws. That means that program and course emphasis should shift with those changes. Ongoing evaluation processes can help these programs and courses stay current.

When	***Evaluation Stage***	***Typical Questions***
Before	Planning	What are our short- and long-range goals? What alternatives are there for reaching these goals? Which alternative(s) will be selected? What resources will be committed? What process will we follow?
During	Formative	Are we on target? Is the process working? What improvements are needed?
After	Summative	Was the goal achieved? What worked well and should be maintained? What worked less well and should be changed or eliminated?

The two Es

The type of metrics selected and then analyzed in evaluation efforts typically fall into these categories: efficiency and effectiveness.

Effectiveness is about results. Efficiency is about the amount of effort needed to get those results. And both types of metrics are typically needed because a good outcome is not as good if it comes about inefficiently. And a less effective outcome is still less effective, even if it's efficient.

Effectiveness metrics help us determine whether instructional and other goals (such as enrollments and retention) have been achieved. Instructional effectiveness metrics usually answer the question, "Did the program, course, and instruction result in the desired changes in knowledge and skill?" This is usually assessed by determining if the learning objectives have been achieved.

If the learning objectives or the content, activities, and assessments that support achieving them aren't well thought out, program and course quality are likely to suffer. I'd posit that this is one of the reasons why higher education programs in my field (instructional design) too often do not produce instructional designers who can handle the challenges of the work.

Even well-designed programs and courses will suffer over time when they are not evaluated against the world as it exists today.

Efficiency metrics are used to analyze the quantity of resources used. When online programs first started, it was assumed that online programs would be less expensive than face-to-face programs. This was a short-sighted assumption; online programs typically involve additional expenses, such as the costs for server technologies and staff; faculty and student support; and designing, implementing, and maintaining online courses.

Making decisions based on efficiency alone is often a huge mistake, because some things that use more resources are actually more efficient in the long run. Training is an example of something that looks resource-intensive only until the costs of not training become evident.

Measuring one without the other typically doesn't give an adequate picture of how programs, courses, and instruction are doing. Some efforts that seem resource-intensive save resources down the road. Some important effectiveness metrics, such as preparation for subsequent courses, are too rarely evaluated, in my opinion. And important outcomes, such as whether distance students feel adequately supported in their studies, are often not on anyone's radar screen.

In the next few articles, I'll go into more detail on selecting and using evaluation metrics, because the wrong or no metrics can lead to counterproductive or even destructive actions.

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What to Evaluate, Part 2

By Patti Shank, PhD, CPT

In the last few articles, I have discussed evaluating online courses, programs, and instruction on an ongoing basis and not waiting for the end of each course (when it's too late to improve that course) to make improvements. My contention is that improvement should be an ongoing process, not an event to be endured.

In order to make improvements, you first have to determine what you want to measure (so it can be improved as needed). These need-to-measure aspects, often called metrics, typically fall into one or both of two categories: efficiency and effectiveness. Metrics that measure effectiveness typically measure results. Metrics that measure efficiency measure how much effort is needed to get those results. And both types of metrics are usually needed because good results are far less good if they are gained at too high a cost, and bad results are bad results at any cost.

Operationalizing what you want to measure

The first step in selecting evaluation metrics is to list the questions you want to answer that will tell you what needs improving. For example, I know that some students in my online courses are frustrated at being new online learners, and I want to prevent frustration, if possible, or intervene to lessen it otherwise. I might start with the following questions:

- Are students frustrated?
- What makes students frustrated?

To answer these questions, I will select metrics to measure if they are frustrated and what they are frustrated by. Selecting these metrics is called operationalizing the frustration concept so I can explain (to myself, and others if needed) what I mean by frustration and how I am measuring it.

How can I operationalize frustration so I can measure whether students have more or less of it and what they consider to be frustrating? Some ideas for metrics are number of postings in the discussion area (smaller numbers mean more frustration), number of emails to the instructor (too many or too few means more frustration), self-report of frustration level in bimonthly student satisfaction surveys (higher level of reported frustration means more frustration), and weekly anonymous surveys asking students to comment on things that are going well and less well (the things they like less well are likely to be frustrating). I like the last two metrics best, but I'm going to keep an eye on the first two as well, because in my experience those often indicate a student who is frustrated. And I have a lot more chance of reducing student frustration if I catch it early.

Here's another example. Your department head tells online instructors that they need to improve course completion rates for online students. You ask obvious questions: What is the completion rate, how is it measured (operationalized), and how much change is desired? Is it measured by students who finish a specific course or who finish a specific program? Is it students who graduate? In order to operationalize completion rate (so you can tell if it has increased, as desired), you have to specify how it is or will be measured.

When operationalizing a concept we want to measure, there are two different types of metrics that we can select from: quantitative metrics (which deal primarily with numbers) and qualitative metrics (which deal primarily with descriptions). In many cases, both types are useful and complement each other.

Qualitative and quantitative measures

Quantitative measures focus on numbers and frequencies, such as number of credit hours and retention rates, and typically provide information that can be analyzed in a straightforward manner (computing the mean or arithmetic average, for example). Qualitative measures tend to focus on non-numerical data such as perceptions, and use techniques such as such as interviews and observations.

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Type of Measure	***Example Measures***	***Example Data Sources***
Quantitative	Completion rate Growth Feasibility Time savings Cost savings Satisfaction	Enrollment data Dropout data Cost data Revenue data Time data Turnover data
Qualitative	Student satisfaction Instructor satisfaction Student support Instructor support Course quality Program quality Instructor quality	Surveys Interviews Focus groups Observations

Both qualitative and quantitative measures can be used to evaluate and improve online courses, programs, and instruction. Some folks put too much emphasis on quantifying everything only to miss out on important nuances. Others are interested only in the details and miss out on what the big picture looks like.

The table at the top of the following page shows some common quantitative and qualitative measures used to evaluate online courses, programs, and instruction.

Many of the qualitative measures in the table can be analyzed in a quantitative manner by categorizing answers by number. So, for example, if I develop a frustration survey and students select their answers on a scale from 1 (not the least bit frustrated) to 5 (pulling my hair out), I could calculate a mean level of frustration (say, 3.74). What does that mean? One thing it means is that, on average, students are somewhat frustrated, and I probably need to do something to lower their frustration level. It also means that a mean of 3.74 requires more digging, because while I know the number should ideally be lower, I have no idea what is causing the frustration, so I cannot fix it. See how quantitative and qualitative metrics provide a clearer picture together than either can alone?

To find out what students find frustrating, I ask open-ended questions such as "What aspects of the course are most frustrating to you and why?" I analyze the answers to see if there are common threads that lead me to change certain aspects of the course or my teaching. If a number of students say that they are frustrated because my assignment directions don't provide enough guidance, I can begin providing examples of assignments completed to my satisfaction and rubrics that specify what I want. (The best examples are prior student work. When a student completes an assignment in an exemplary way, ask him or her if you can save the assignment, minus identifiers, to use as an example.)

The point is to not get hung up on the differences between quantitative and qualitative measures, but to realize that a variety of measures can be used to evaluate courses, programs, and instructors. Selecting measures, then, should be about determining which ones will help you determine what improvements to make.

Next month, I'll talk about different levels of metrics and examples of each.

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What to Evaluate, Part 3

By Patti Shank, PhD, CPT

In last month's article, I discussed how to operationalize (that is, be very specific about) what you want to evaluate so you can select measures that provide you with the information you need. I began discussing qualitative and quantitative measures last month, and this month I'll take that discussion a step further by considering different levels of precision.

Levels of measurement

When selecting measures to evaluate course, program, and instructional quality, we can select measures from four levels represented by the mnemonic NOIR: nominal, ordinal, interval, and ratio. These indicate increasingly precise levels of measurement.

Nominal measures

Nominal measures put data into categories. Let's say that at the beginning of each semester, you ask your online students to tell you what degree program they are enrolled in, and you label their answers as follows: Liberal Arts 1, Engineering 2, Education 3, Sciences 4, Business 5, Agriculture 6, Other 7.

Does this numbering scheme indicate that Engineering, with a 2, is half as good as Sciences, with a 4? Hardly. Although numerical values may be assigned to represent non-numerical category labels, the numbers themselves aren't meaningful. Demographics such as sex, religion, and ethnic origin are nominal measures.

Ordinal measures

Ordinal measures can be categorized, like nominal measures, but they can also be rank ordered. We can say that one measure is higher or lower than another measure—but we cannot say how much higher or lower.

So, for example, if a committee is considering new course management systems and asks the members to rank order their top three choices, we would be able to say which choices came out higher but could not say how much higher. Ordinal measures are frequently used to collect data about preferences. Likert-like scales, where respondents are asked to pick a number (typically 1 to 4 or 1 to 5) that shows the amount and direction of agreement with a statement, may be considered ordinal measures, as they provide a ranking

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from most to least, or vice versa. (There is disagreement about whether rating scales are ordinal or interval measures.)

Interval measures

Interval measures can be categorized (like nominal data) and rank ordered (like ordinal data), but the intervals between data points are meaningful. GPA is a good example of an interval measure, because we can say that the distance between a 2.5 and a 3.0 GPA is the same distance as the interval between 3.5 and 4.0. But we cannot say that a 4.0 is twice as good as a 2.0, even though the assigned value is twice as big.

Ratio measures

Ratio measures have all the characteristics of the first three levels, but they also contain a meaningful 0 point. By having an absolute zero in the measurement scale, we are able to describe data in terms of ratios. So, for example, we can say that a student with 60 credit hours has successfully completed twice as many credit hours as a student with 30 credit hours. And we can say that a class with 50 students has twice as many students as a class with 25 students.

Measurement precision

Measurement precision increases as measurement levels increase from nominal measures through ratio measures. And the statistical analysis that can be done increases as measurement level increases. So we can compute the mean of ratio-level measures (such as number of credit hours completed) but not nominal-level measures (such as gender).

Here's an example of how age can be measured with different amounts of precision.

Method 1: Child or adult

Method 2: <20 years of age, 20–29, 30–39, 40–49….

Method 3: Date of birth (dd/mm/yyyy)

Method 1 is an ordinal level measure and is very imprecise. Child is younger than adult, but that's about all we can say. Method 2 is either an ordinal or an interval measure, and is more precise than child/adult. Method 3 is the most precise because we can compute an exact age and the difference in ages from one person to another. We can say, for example, that Marvin is three years and 22 days older than Mary.

Certain statistical tests (such as mean and standard deviation) require certain levels of measurement. But there are times where the ability to analyze the data statistically isn't that useful because it doesn't provide enough depth of information.

Let's say you want to know if students feel that a prerequisite course adequately prepared them for the subsequent course, and you use the following rating scale:

ECON 275 prepared me for ECON 375.

1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree

How helpful is it to know that the mean answer is 1.17? That result probably gives you an idea that ECON 275 needs to be improved in order to prepare students better for ECON 375. But what should be done to improve ECON 275? I'd have far more information to answer this question if there were an open-ended follow-on question, such as:

If you answered Disagree or Strongly disagree, describe what would have helped you be better prepared.

What does this all mean? First, it means that if you are intending to analyze the data statistically, you'll most likely want to select interval or ratio measures. But start by deciding what information you need in order to continuously improve your courses, programs, and instruction. Then determine what data is needed, what level of precision is needed, and how you will collect and analyze the data. Give consideration to whether you need quantitative data (such as numbers and frequencies) or qualitative data (such as perceptions and feelings) or both.

Both qualitative and quantitative measures can be used to evaluate and improve online courses, programs, and instruction. Some folks put too much of an emphasis on quantifying everything, only to miss out on important clues about what is needed for improvement. Others are only interested in the details, and miss out on what the big picture looks like. Since qualitative and quantitative data complement one another, using both types of measures is often useful.

Since surveys are one of the most common tools for gaining evaluation data, I'll discuss designing good surveys next month. In the meantime, consider building a list of the questions that require answers in order for you to continuously improve your courses, programs, and instruction.

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Getting Evaluation Data through Surveys: What to Consider before Getting Started

By Patti Shank, PhD, CPT

Surveys are one of the most common tools for gathering course, program, and instruction evaluation data. Although surveys appear to be easy to design and implement, designing surveys that provide valuable information requires some thought. Surveys developed without this level of consideration tend to be disjointed and provide data that isn't easy to analyze for needed improvements.

This month, I'll discuss some high-level questions to consider *before* designing and implementing surveys for the purpose of gathering course, program, and instruction evaluation data. I'm not talking about rigorous survey research, where choosing a sampling method, assuring an adequate sample size, worrying about response bias, and measuring significance is needed, but rather designing surveys to fuel continuous improvement.

Is a survey the right tool?

Surveys have limitations. If we don't ask the right questions, don't get answers from the right people, or use surveys to answer questions that would be better answered using other methods, the information gained is far less likely to be useful. And surveys set an expectation of action. If you're not looking to improve anything, why ask?

Survey usefulness also depends on participant truthfulness and recollection. If you ask students to estimate the amount of time they spend using online course materials and tools each week, students might over- or underestimate. This is an example of a question that probably could be better answered using objective measures. Survey questions could be used to get at the "whys" of the objective data.

Because surveys can be anonymous, they can be quite useful for getting honest opinions. They can also be useful for answering "why" questions. If student assignments are often turned in late, survey questions can be used to pinpoint the reason(s): Are assignment dates unclear? Are there too many assignments? Is the upload tool not working?

What information is needed and why?

The clearer you can be about what you want to know and why you want to know it, the easier it'll be to determine what questions to ask and how to ask them. And the more clearly and concisely your purpose is explained to potential participants, the more likely they will be to answer your questions and provide valuable answers.

If you want to know if students feel motivated, what exactly do you want to know? Do you want to determine if they are interested in the course topics? Why? Or if they feel like they are part of a group and not alone? Why?

What's the point? Your clarity of purpose translates into better questions and more useful data. If you find it hard to create survey questions, it's a sign that you haven't yet been specific enough about what you want to know and why you want to know it.

A faculty friend of mine uses an anonymous end-of-week survey to find out what students think worked well and less well that week. Her purpose is very specific: to improve the course as it is in progress. After reviewing the responses, she posts a discussion listing each week summarizing what folks said and her response. As students see that she is genuinely interested in making course corrections, they are more willing to provide feedback.

Who has answers?

After you have determined what you want to know and why you want to know it, you'll need to determine who can provide you with answers. If you want to know if your assignment directions are clear, for example, you can ask your students. But it's important to remember that it's sometimes hard to get honest answers from current students unless they can provide this information anonymously. You could also consider asking people who are less intimidated about providing honest feedback.

Let's say you want to know if certain help tools and strategies, such as online "office hours" or calls from student services reps, are likely to be valuable to students in your online program. But whom should you ask? Existing students? Dropouts? Potential students? Asking different audiences might provide valuable insight into supporting your online learners.

The goal of using surveys is to get valuable information to fuel continuous improvement. Figuring out what you want to know and why you want to know it and determining who can provide valuable answers points you in the right direction for gathering this information.

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Using Surveys to Improve Courses, Programs, and Instruction, Part 1

By Patti Shank, PhD, CPT

Surveys are commonly used as data collection tools for improving courses, programs, and instruction because they are easy to administer. But the value of survey data is highly dependent on the design and implementation of the survey. So my goal, in this and the next few articles, is to provide some guidance on designing and implementing surveys so that you get data that helps you improve your courses, programs, and instruction.

I'll start out by discussing when to use surveys and how to select the correct survey question type.

What is a survey good for?

The primary reason for using surveys as data collection tools for improving courses, programs, and instruction is to obtain students' opinions, attitudes, or beliefs. Another reason to use them is to get information about things we are unable to personally observe, such as amount of time spent on assignments.

Surveys seem easy to develop and administer, but they aren't always the tool of choice. For example, if you want to know if your student work groups are having problems, you'll probably want to pop into their discussion areas to see how things are going, instead of or in addition to asking students directly. Likewise, you might get more accurate data about whether students have used specific course resources from course management system reports than from the students themselves.

Surveys can also be used to answer questions and corroborate tentative conclusions. Let's say many of the students in your course handled a specific assignment poorly. From the communications you had with two students, you think that the directions may have been misleading. A survey might help you determine if this hunch is correct.

Closed or open?

There are two types of survey questions: closed-ended and open-ended. Both are useful, and they tend to complement each other (which means it's often a good idea to include both).

Closed-ended questions offer a finite set of options that the respondent can select from. They often look just like multiple-choice questions. They are easy to administer, and the resulting data can be analyzed statistically. Many of the online survey applications (such as Zoomerang) help you perform simple statistical analysis (such as the percentage of respondents who selected each option), and you can usually filter the answers so you can see, for example, if juniors and seniors answer differently than freshman and sophomores. The disadvantage is that these questions are often difficult to write, and answers may not provide enough data to pinpoint the changes you should consider making.

Open-ended survey questions provide a prompt and then a space for respondents to answer in their own words. An example of an open-ended question is:

How could the [resource name] be improved so it is more useful?

The data from open-ended questions have the benefit of more closely reflecting respondent opinions and views because respondents are describing them in their own words. This increases the likelihood of gaining insightful suggestions. As a result, it is common practice to include open-ended questions alongside closed-ended questions.

Open-ended questions have some disadvantages too. Statistical analysis isn't performed, and responses require more interpretation than closed-ended question responses do. They also require more thought and time on the part of the respondent. And that may mean more opt-outs among respondents.

One open-ended question that you should consider adapting for the final question in your survey is, "Is there any other information you would like to add to help me improve this course?"

Closed-ended question styles

There are numerous closed-ended question styles that can be used in a survey, but the following types are most common.

Likert-like scale: These are typically used when asking for opinions.

Respondents select a place on the scale that matches their opinions. One end of the scale commonly reflects a negative opinion, and the other end of the scale commonly reflects a positive opinion.

Example: The chat sessions were helpful to me.

Strongly disagree				Strongly agree
1	2	3	4	5

Multiple-choice: These are very commonly used, and they ask the respondent to select the best answer (or answers if you want respondents to select all that apply).

Examples:

Did you use the [resource name] when completing the [assignment name]?

a. I used it for each [assignment name].
b. I used it initially but didn't continue to use it.
c. I didn't use it.
d. Other (please explain) _____.

If you didn't use the [resource

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name] or didn't continue to use it, why not? (Check all that apply.)
a. I didn't need it.
b. It wasn't helpful.
c. I didn't understand how to use it.
d. I didn't know it was available.
e. Other (please explain) _____.

Each of these closed-ended questions has an open-ended question built in. Nifty way to do closed- and open-ended together, no?

For opinion-related questions, surveys may include a standard set of options, as shown in the following example. These are similar to the Likert-like scales but are written in a multiple-choice format.

The instructor responded to email questions within 12 hours.

a. Strongly agree
b. Agree
c. Neither agree nor disagree
d. Disagree
e. Strongly disagree

Ranking: These are used when you want the respondent to rank order the options. Example:

Put a number between 1 (least helpful resource) and 5 (most helpful resource) next to each course resource listed below to rank their helpfulness.

___ a. Assignment checklists
___ b. Assignment examples
___ c. Annotated resource list
___ d. Weekly chat sessions
___ e. MP3 lectures

Next month, I'll provide general guidelines for designing surveys. I'll preview one here to pique your interest.

Work up to hard. Ideally, the first few questions in a survey should be easy to answer, because once respondents begin the survey, they are more likely to keep going. Place hard or sensitive questions near the end of the survey. That way, if respondents stop answering, you'll have some data rather than no data.

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Using Surveys to Improve Courses, Programs, and Instruction, Part 2

By Patti Shank, PhD, CPT

Surveys are frequently used by online faculty to collect data about their online courses and instruction. They're easy to administer (a plus), but the data gained is only as good as the design and implementation of the survey (not a minus but requires thoughtful consideration).

Surveys aren't the best tool to use to measure outcomes if those outcomes can be measured directly. For instance, it doesn't make sense to ask students how many of the assignments they completed on or before the due date because you can use the course management system to measure that directly. But you might want to use survey questions to gather student opinions about the assignments. Similarly, asking students how often they visited the course resource links isn't worthwhile if the course management system can provide this data. But asking students survey questions about the value of the links makes sense.

The bottom line is that surveys are best for gaining opinion data (whether there was enough time between assignments, for example) and to find out why (would the resource links be more useful if each link was annotated, for example).

This month, I'll discuss some general design guidelines to help you get more responses when using survey data to improve your online courses and instruction.

Assure anonymity. If students are concerned about negative consequences from their answers, answers are less likely to be truthful, if the questions are answered at all.

Emails are not anonymous, period. If you are using your course management system to administer a survey, chances are that replies aren't anonymous and even if they are, many students won't think so. Many of the online survey applications allow users to create simple surveys at no charge and provide the anonymity that is needed. And don't forget to tell students what you are doing to ensure that their answers are anonymous.

Work up to hard. Ideally, the first few questions in a survey should be easy to answer because once respondents begin a survey, they are more likely to finish it. Place hard or sensitive questions near the end of the survey. That way, if a respondent abandons the survey, you'll have some data rather than no data.

Keep it short. Have you ever opted out of a survey in the middle of filling it out because it was taking too much of your time? No one wants to fill out a 15-page questionnaire. If you are asking questions whose answers aren't critical to your goal, nix them. Still too many? Divide the questions into need-to-know, helpful-to-know, and nice-to-

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know; and delete most of the helpful-tos and all the nice-tos.

Explain why. Tell students the purpose of the survey and what will be done with the answers. We are all pretty cynical about whether our answers (on surveys) will actually change anything, so you may want to offer an example of a change you made based on previous survey answers.

Defeat habituation. If a series of questions all have the same answer options, some respondents will start giving the same answer to all without considering each question or prompt. Consider breaking up these types of questions using different options (to defeat autopilot answering).

The following example questions show use of different options for the answer choices even though the answer choices on question 6 could be used for question 7 (with the blank removed).

6. The instructor provided adequate feedback on assignments.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree

7. Peer review comments on assignments were _____ helpful.
   a. Extremely
   b. Moderately
   c. A little bit
   d. Not

Allow for opt-outs ... judiciously. Consider providing a "not applicable" option if the question isn't applicable to all. But don't offer this option on questions where the question is applicable to all students.

Include a "decline to answer" option for sensitive information. Many respondents will refuse to answer questions about race or income level, for example, and if the survey doesn't allow them to skip this information, they are likely to abandon the survey. But don't add this option to questions where there's no reason to decline to answer.

Use these options judiciously because if you provide easy opt-outs, you're likely to get lots of opt-outs.

Allow for more ... judiciously. Include an "other" option with the ability to type in an additional answer if you think it's probable that the list of options provided won't adequately cover all the likely answers. (Last month's article discussed uses of open-ended and closed-ended questions.)

The following example question shows use of an "other" option, in case respondents had problems that weren't listed.

16. Did you experience any problems using the assignment examples? (Check all that apply.)
   a. No, I used them without problems.
   b. Yes, I didn't know they were available.
   c. Yes, I had technical difficulties when trying to open them.
   d. Yes, the examples weren't similar enough to my topic to be useful.
   e. Other (Explain: _____)

Confirm as needed. If you end up with unclear or surprising information, you'll want to confirm your interpretation. One of the best ways to confirm your interpretation (or get help with interpretation if you don't have an interpretation) is to set up one-on-one meetings (by phone or in person, if possible) with students who typically provide constructive and appropriate feedback. (Be careful here if the course is in progress. Even these students may be unwilling to be put on the spot if they fear that their comments may jeopardize their grades.)

It's not enough to get more answers; you'll also want answers that are as useful (for improving online courses and instruction) as possible. So next month I'll provide guidance on writing good survey questions.

Patti Shank, PhD, CPT, is a widely recognized information and instructional designer and writer and author who helps others build valuable information and instruction. She can be reached through her website: www.learningpeaks.com. @

Using Surveys to Improve Courses, Programs, and Instruction, Part 3

By Patti Shank, PhD, CPT

Surveys are often the tool of choice for evaluating online courses and instruction because they are relatively easy to develop and administer. But this ease is truly a double-edged sword because it's very, very easy to write questions whose answers provide information of little value. For example, consider the following survey question.

Assigned readings were worthwhile.

a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

At first, the question seems fine. But let's take this a step further and say that the question yielded the following data.

Assigned readings were worthwhile.

Selection	*Number*
a. Strongly agree	3
b. Agree	14
c. Disagree	8
d. Strongly disagree	2
Not answered	2

More than half of the respondents thought the readings were worthwhile. Is that an acceptable number? "Worthwhile" isn't defined, and there are no clues as to what to do to make them more worthwhile. Here's one example of a rewrite.

This rewrite is likely to yield better information because it is more precise (the question defines "worthwhile" with two attributes) and allows respondents to rank each reading separately.

Next, I'll discuss two important guidelines to follow for writing survey questions that yield information that can help you improve your online courses and instruction.

Ask the right question(s) to get the information you need.

As we saw earlier, it's easy to write questions that provide little or no useful information—and waste everyone's time. Consider the following question:

How often do you work on assignments or other classwork (such as reading discussion postings) for this course?

1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

How often is "Very often"? Does it help you to know that 3 out of 35 students responded "Very often," and 12 out of 35 students responded "Often"? Not so much. It's better to offer more meaningful options, such as in the following rewrite.

How many days a week did you work on assignments or other class work (such as reading discussion postings) for this course?

1. Every day
2. 4-6 days week
3. 2-3 days a week
4. Once a week or less

It's important to determine what you want to know and write each question so that it will yield the information you want. The last example might be asked to determine if some assignment-completion problems were due to students not allotting enough time to do the work. If that turned out to be the case, you might want to make sure that students understand the workload and what will be needed to be successful in the first week of the course.

Be clear.

What's wrong with this question?

Where do you do your schoolwork?

a. Home
b. Work
c. Both home and work

Hmmm. What should a respondent answer if he does his schoolwork at the library or at school? Or what if he does his schoolwork at home, school, *and* the library? One option is to add more options. Another is to add an "Other" option with space to input another answer. Yet another is to provide a checklist, such as the one shown below.

I do my schoolwork at (check all that apply):

Home
Work
School
Library
Other: _____

Make sure that each question asks one thing at a time. Yes or no answers to "Were the checklists and example assignments useful tools for completing the course assignments?" won't tell you if the checklists and examples were both useful, or if one was useful but not the other.

Also, make sure your language is as precise and clear as possible. I discussed earlier how the word "worthwhile" might mean very different things to different people. One student might reply no to "Was [resource name] worthwhile?" because he didn't make time to utilize it, while another might answer similarly because he found the resource hard to use.

Also, be careful about coming to conclusions from unclear questions. For example, say that many students did poorly on the last assignment and then you asked, "Was the final assignment too hard?" Seventy-four percent said no, so you might conclude that the assign-

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ment didn't need fixing. But what if it wasn't too hard, but it *was* too much to accomplish in the allotted time? The answers provided would not yield data to help improve the course the next time around. An open-ended question such as "How can the [assignment name] be improved?" would likely yield better improvement insights.

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Please rate each of the assigned readings on the following attributes.

	Attributes (Rating scale: 1 is lowest score and 3 is highest score)	
Readings	Helpful for understanding multiple points of view (1-3)	Worthwhile extension of textbook readings (1-3)
…		
Comments:		

Using Surveys to Improve Courses, Programs, and Instruction, Part 4

By Patti Shank, PhD, CPT

Surveys are often used to obtain evaluation data on online courses and instruction because they are easy to design and implement. In the last few articles, I discussed how to write good survey questions in order to provide insights that can help you improve your online courses and instruction. This month, I'll discuss some special considerations to take when using email to collect survey data.

Because so many people have email access, and because an email survey may feel less intimidating or less time-consuming than a Web-based survey (Web-based surveys may involve navigation and often feel like they'll take a long time to complete), email may be a better tool than Web-based survey tools for some audiences.

Advantages and disadvantages of email surveys

The biggest advantage of using email to deliver surveys is that the process is very simple. It only relies on the questions you develop and the recipients' ability to send and receive email. Almost everyone taking an online course has email, and email surveys can be delivered very quickly and at little or no cost.

Remember though, ease of distribution can—and too often does—lead to reduced planning and thought about design and implementation of surveys. Furthermore, reduced planning and thought may lead to data that is of little value.

It's easy to send your students an email survey, but it's also easy for them to overlook it. If you're using an email program such as Outlook, you know how easy it is to "lose" emails in a full inbox: out of sight, out of mind. Because most students, like the rest of us, get tons of email, it's also easy for them to skip over the email if they don't perceive it to be important as they're examining their inbox.

Email that you send to students can end up in spam filters by mistake, so some of your students might never receive the survey you send. If you send email to a student email account (such as student.name@educational_institution.edu) at the end of the semester, students may not be reading email in that account until the next semester starts. You may, therefore, need to send post-semester surveys to each student's "normal" (home or work) email address.

If you use HTML forms in your email survey (so you can format the survey as you desire plus include radio buttons, checkboxes, text boxes, and so on), students who haven't set up their email to receive HTML emails may see an unformatted mess. Using HTML forms inside email is risky.

All of these disadvantages may be enough to sway you from using email as a survey delivery medium. But the biggest disadvantage, in my view, is that email surveys are almost always very simplistic because they most likely will not contain any logic.

Survey logic allows you to input "go here if…" rules into your surveys. So if you ask questions about the extra credit assignment options you provided, for example, and the

Continued on page 14 >>

respondent didn't use any of the extra credit options, the survey will skip over any remaining questions about the extra credit options and take him or her to the next applicable question.

You can write logic into the text of your email survey questions, as the following example shows:

8. Did you make use of the extra credit assignment options?
   a. Yes
   b. No (skip to question 10)

But adding logic to the question (8b) makes the survey question more confusing and time consuming. Some who select answer "b" will answer question 9 anyway, and that information will be confusing when you analyze responses. (I am dealing with this problem, personally, right now.) The more logic you add in this manner, the more confusion is likely to occur. In Web-based surveys, this logic is typically programmed in behind the scenes so the questions that the respondent sees are automatically based on answers to previous questions and the respondent doesn't have to figure out where to go next.

One last, but critical, disadvantage to using email surveys is that respondents may or may not feel that their answers are anonymous, especially if respondents are emailing their answers directly back to you. If the responses are not anonymous, you are very likely to get either no response or responses with less-than-honest information.

Making email surveys work better

If you do not have access to Web-based survey tools and email is the only or best way for you to collect survey data, there are some things you can and should do to make the experience better for respondents and the data more valuable for you.

Start by getting the best email address(es) from your students and tell them when to expect the survey. If this email address is not the address they used during the course, remind them to whitelist your email address (set spam filters to allow your email to get through).

Start your email survey with a description of the rationale for the survey and a short explanation of how you have used the data in the past to improve your course and instruction. Keep the survey short, and write clear questions (see previous articles for important tips).

Do everything you can to provide anonymity, and explain in the survey directions how this will be achieved. This is especially true if you are sending surveys while the semester is in progress in order to improve the course and instruction right now (a good idea). Students can send their answers to a third party, such as a graduate assistant or office administrator, who can strip identifying information and give you the data only. One faculty member I know asks her students to use remailers, which allow people to send email anonymously. Google "anonymous email" or "email remailer" to find out more about these services. Some are portals for sending spam, so check them out carefully before using.

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Using Surveys to Improve Courses, Programs, and Instruction, Part 5

By Patti Shank, PhD, CPT

Surveys are easy to design and implement, but designing *good* questions and getting *good* information *isn't* easy. That's why I've written previous articles on how to write good questions so you get the information you need. This month, we'll complete this series by discussing the use of Web survey applications.

Web survey applications are online applications such as Zoomerang and Survey Monkey, which facilitate creation, implementation, and analysis of surveys using their online application. Your institution may have its own Web survey applications, and this article should apply to them as well.

Advantages and disadvantages of Web surveys

One of the advantages of using a Web survey is that potential respondents likely know how to use them. Here are some additional advantages to using Web surveys:

- Most of the Web survey applications make designing, implementing, and analyzing a Web survey quick and easy.
- Some of the Web survey application vendors allow anyone to create free surveys.
- Many of the Web survey applications can apply complex question logic (such as if the answer is a or b, present the next question and if the answer is c or d, input two additional questions before the next question) and have other unique features that can't be accomplished with paper or most email surveys.
- Some research shows that people

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give longer answers to open-ended questions on Web surveys than they do on other kinds of surveys.

And now some disadvantages:

- It's quite easy for respondents to quit in the middle of a Web survey because interacting with a Web page is impersonal.
- You may need to make sure that only desired respondents can reply and that desired respondents can only reply once.

Design considerations

Include introduction text and general instructions on the first screen. Explain why you are asking students to provide answers to these questions and what you will do with the information. Assure them that their answers are confidential (if they are—and they should be). Put other instructions where they are needed rather than putting all instructions up front.

Design for clarity. Web survey applications may allow you to add various bells and whistles, but use these judiciously because they are distracting. It may be a good idea to use a different font or font attribute for instructions rather than for question text so respondents can find instructions easily. But don't use italic for long passages of text. Italic text is hard to read.

Make the background color white or very light and the question text black so respondents can easily read the questions. Don't use graphics unless they are needed to answer the question.

All multiple-choice answers should be labeled the same way. Be consistent with color, too. If the instructions are blue, they should always be blue. Remember that some respondents may be color-blind or using a screen reader.

Make the survey as short as possible, and tell students how long it should take. Five to 10 minutes is reasonable. Provide open-ended questions to find out what changes are needed.

Limit required answers to truly crucial questions. Making questions required may increase dropouts or nonsensical answers. And if required questions are multiple-choice, be careful to include all expected answers or add an answer that combines multiple choice with open-ended, such as d) None of the above (please explain).

Test your survey. Make sure that all the pages look and act as expected. Ask others to tell you if your questions are clear.

Most Web survey applications allow you to download the data into Excel for analysis or to analyze the survey online. If you want to be able to determine if the answers are different for males and females, undergrads and grads, new online students and experienced online students, for example, make sure to ask for those demographics in the beginning of the survey.

Web survey applications

www.questionpro.com/
www.surveykey.com/
www.surveymonkey.com/
www.surveyshare.com/
www.zoomerang.com/

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ONLINE CL@SSROOM
IDEAS FOR EFFECTIVE ONLINE INSTRUCTION

JUNE 2009

A Learner-Centered, Emotionally Engaging Approach to Online Learning

By Rob Kelly

Learning research indicates that people learn better in the presence of some emotional connection—to the content or to other people. Creating this emotional connection is particularly challenging in the online classroom, where most communication is asynchronous and lacks many of the emotional cues of the face-to-face environment. Nevertheless, it is possible to do, with a learner-centered approach to teaching and a mastery of the technology that supports it, says Rick Van Sant, associate professor of education at Ferris State University.

"One of the things we know about learning is that learning with emotion is a far deeper experience than learning without emotion," Van Sant says. Citing recent research (see reference below), Van Sant notes that a little bit of stress and the corresponding release of cortisol makes "neural connections grow thicker, stronger, faster." However, too much cortisol degrades memory performance.

Creating an emotionally stimulating environment is something good face-to-face instructors do intuitively. "We live and thrive on the positive feedback from students. Students shape our behavior all the time. When technology is mediating between the learners and me, I lose the capacity to read my audience, engage my audience, and alter my style and cadence. I have no capacity on that kind of intuitive level [in the online classroom]. It all has to be intentional and cognitive," Van Sant says.

Technology provides access to a vast array of content that has the potential to resonate emotionally with students. One site that Van Sant uses in his courses is Technology, Entertainment, Design (*www.ted.org*), which features top presenters talking on a wide range of topics.

"I can watch the world's best presenters, speakers, and thinkers and bring them into my classroom. I can challenge my students with that information. I can ask questions. I can engage them in discussion with their own small community of learners about just what [the presentation] meant for them. The goal is to produce some emotional response, and probably seventy percent come back and say, 'Wow, I've never known stuff like this existed,' 'That was the most amazing presentation,' or 'This person made the topic come so alive for me.' It's

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TIPS FROM THE PROS

Use Message Prompts to Promote Deeper Discussion

If you're looking for a way to promote deeper discussion and higher levels of argumentation in your threaded discussions, consider using message prompts such as "My argument is …," "On the opposite side …," and "Explain why … ," says Allan Jeong in the recent Magna Online Seminar "Learning Styles: Fact and Folklore for eLearning" *(www.magnapubs.com/catalog/cds/602248-1.html).*

"In my online courses, I require my students to restrict their postings to just four types of responses: arguments, explanation, challenges, and evidence. … I would say about 90 percent or more of my students like using this particular strategy or technique, and they report that the message tags help them to monitor the thread and to pinpoint areas of contention that might require further attention and further discussion," Jeong says.

Jeong highlights a study by Nussbaum et al. (see reference below) that found that this strategy helped learners who were less assertive, less anxious, and less open to ideas engage in more argumentation.

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USC Goes Beyond Text with its Innovative Online Graduate Education Program

By Rob Kelly

In June, the University of Southern California's Rossier School of Education will enroll the first cohort of students in its online master of arts in teaching program, which will use a combination of interactive technologies such as streaming video, animation, and other Web 2.0 technologies.

The program, which uses a custom platform developed by Kaltura (*http://corp.kaltura.com/*), features a thin app (no software downloads needed) that combines features found in popular Web 2.0 applications within a single platform. "We pulled together the best elements of different types of programs. It's almost like designing a car—I like the seats in the Mercedes, and I like the transmission from Honda. I want the community building aspect of Facebook and the video capacity of iMovie. It has that feel," says Melora Sundt, professor of clinical education and associate dean for academic programs at USC's Rossier School of Education.

Making the most of the Web

The program was designed in response to some of the shortcomings Sundt and her colleagues observed in many other online programs—mostly text-based and not particularly engaging or interactive. For example, one online course that Sundt took "was all about posting questions and everybody responding in. I found it to be pretty boring. [Courses like this] are not taking advantage of what the Web can do.

"Teenage kids will spend hours on the Internet. Stand behind them, watch over their shoulders, and look at what they're doing. They're following links. They're following the Internet all the way around and going where they want to go and teaching themselves things. Part of what we have to do is harness this and adapt to the generation of students that is going to be coming through the program," Sundt says.

The program emulates some elements of Facebook. Like Facebook, this program's home page has a newsfeed, which reminds students of what is currently happening in their courses and alerts them to upcoming events.

Each student in the program will have a profile page, which will include a biography, a wall on which others can leave messages, and a brief video, which are intended to facilitate interaction throughout the program and help students practice using the video technology they will use throughout the program.

"I think it's going to be comfortable and familiar for many students. It expands the ability to connect, which is a key problem with many other programs. People talk about alienation. They don't feel like they're connecting to anybody. They're missing that sense of community. Given what something like Facebook can do, if you can draw out the best of that and put that into a course, then you are really harnessing the technology that people are familiar with, and you're beginning to close that alienation gap," Sundt says.

The platform is designed to help students know where they are on the site at all times through a global navigation system at the top right of the screen. On the left side are links to course elements that are relevant to the current page.

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Teaching Online Science Courses by Using a Combination of Simulations, At-Home 'Wet' Labs

By Rob Kelly

Tina Christinck, a biology instructor at Eastern Wyoming College, uses a combination of virtual and "wet" labs in her online courses. Although there are some limitations to this approach, for introductory courses this combination is a suitable alternative to face-to-face labs.

Christinck uses the following resources to support her courses:

- *www.biologylabsonline.com:* This proprietary site offers a series of interactive, inquiry-based biology simulations and exercises on topics such as cellular respiration, photosynthesis, and evolution.
- *http://learn.genetics.utah.edu:* This website, run by the University of Utah's Genetic Science Learning Center, offers simulations and instructions for labs that can be done at home using ordinary equipment and materials.

The online labs offered by these sites cover most topics in introductory biology. The simulations allow students to manipulate variables and observe the outcomes. For example, an evolution simulation prompts students to manipulate several parameters while observing what happens to a population of finches over time.

Introductory information provides context and instructs students on how to do these simulations; however, the simulations are not limited to information provided by the site. Christinck modifies the simulations to suit the needs of her courses. "I've written my own labs that allow my students to utilize the simulations … rather than using their labs … because I think they fit a little bit better," Christinck says.

One of the advantages of these simulations is that there is some randomness built in—no two students will get the same exact data.

Christinck has students do hands-on labs as well. For example, students can do a DNA extraction at home using ordinary materials and equipment. "I have them set up some things that are very comparable to what I do in my classroom—[although] maybe not with a beaker—using different measuring tools that they may not have access to," Christinck says.

An animation program on the University of Utah site shows how one would do a human DNA extraction using cheek cells. The site also has instructions on how to extract DNA from fruits or vegetables using water, rubbing alcohol, dish soap, salt, a blender, and a coffee filter (see *http://learn.genetics.utah.edu/content/labs/extraction/howto/*). "This lab takes things that are very easy to get and still does something that I would do in the classroom," Christinck says.

Working individually on labs can be a challenge for students—not in terms of performing the lab, but in terms of interpreting the results. The most difficult lab for Christinck's students is the photosynthesis lab. "They almost need me sitting there to bounce ideas off of, to help them think about photorespiration and some of those metabolic processes. Although the experiments turn out great—the data does, anyway—their conclusions, their understanding is lacking in a lot of cases," Christinck says.

Christinck recommends that students work together (if they can) or use the discussion board.

Another limitation of doing virtual and at-home labs is the lack of hands-on microscope experience. There are websites that have virtual microscopes, but Christinck has not used them. "I can give them the slides; upload .jpegs of micrographs; have them identify tissues, cells, and nuclei; and have them learn parts of the microscope. But when it comes to that hands-on piece, that's one of my big concerns. Are they going to be comfortable with that? How do you do that online without having a kit that includes a microscope?" Christinck says.

To others who teach online lab courses, Christinck recommends the following:

- **Provide adequate tech support.** "Having good tech support can save the instructor a lot of headaches," Christinck says.
- **Be consistent. She continues,** "It's really helpful if the presentation of the instruction procedures is very consistent—[for example, by] doing things the same way each week in terms of downloading the instructions and what they need to do to prepare for the lab."
- **Don't be afraid to try new things.** Teaching online requires different solutions than those used in the face-to-face classroom or lab. Although there are many resources that can make online labs possible, these can and should be adapted to each course.
- **Be on the lookout for new resources.** "It's amazing to me what's out there and what's free. It's incredible," Christinck says.

Contact Tina Christinck at tina.christinck@ewc.wy.edu.

What Really Happened? Pump Up Your Online Courses, Part 8

By Patti Shank, PhD, CPT

My goal for this series of articles is to provide you with practical ideas that you can adopt or adapt for your online courses in order to improve student engagement and learning. Last month, I discussed helping students develop habits of mind around questioning online content credibility and quality. This month, I'll discuss a related topic—the use of online primary sources.

Primary sources are original documents or artifacts (or electronic versions of original documents or artifacts). They may include diaries, journals, letters, articles, and transcripts of speeches and interviews. Primary sources may also include data (such as census information) as well as media such as photographs, illustrations, maps, audio recordings, and video recordings (including recordings of events, interviews, films, and television programs). Primary sources may be digitized for electronic access, but to be accurate, they must replicate the actual document, data, medium, or artifact.

The purpose of using primary sources for teaching and learning vary. One purpose is to help students consider past events without the "filter" of the writers who are interpreting those events for us—even if they don't realize they are doing so, as is the case in many articles and textbooks. Another reason to use primary sources is to engage students' imaginations about why events happened as they did and why different people and groups saw those events differently. Primary sources can help students see that events don't happen in a vacuum; they happen to people and society in specific circumstances, and they have foreseen and unforeseen consequences.

Not just history

It might be obvious that primary sources are valuable for teaching and learning history, but can primary sources be useful in other courses—for example, economics, physical education, or chemistry? Since primary sources can help students understand events and time periods, they can be valuable for many types of higher education courses.

For example, jump 30 years into the future. Do you think that economics textbooks will include information about the economic chaos happening in the latter part of the 21st century's first decade? It is likely that textbooks will include this information, but consider the benefits of also providing access to primary sources—for example, newspaper articles, stock market data, Federal Reserve announcements, and televised press conferences. These primary sources can provide students in the year 2039 with a depth of understanding about the times that you and I are living in, by augmenting the information found in textbooks (and, it is to be hoped, learning from our mistakes).

How can primary sources be used to teach physical education? Consider all the changes in health and exercise knowledge that have occurred over the past 50 years. In order to make the case that prescriptions for healthful living, eating, and exercise change over time, primary sources from the surgeon general, the American Council for Physical Fitness and Nutrition, and others can be read and evaluated by students. This information can help them see that knowledge is rarely static and that, as a result, they should expect their knowledge and practice to also change over time.

Like physical education, science knowledge changes over time. Primary sources can be used to help students see what has changed and why, the consequences of those changes, and the implications for scientific inquiry and real-world practice as a result.

The bottom line is that embedding the history related to the topics you are teaching provides context for what is being taught. Research shows that adding meaningful context can make the content come alive and make the learning experience more engaging. Many topics seem dry out of context but are extremely interesting in context. For example, information technology infrastructure standardization may seem like an incredibly dull topic, but when information about the history of standardization is provided, the topic can come alive. How so? For example, standardization of railroad train tracks made economical transportation of goods over long distances possible. Internet standards, likewise, have made possible economical transportation of data over long distances.

Finding applicable primary sources

In the not-too-distant past, interacting with primary sources of information required visits to print, microfilm, and artifact repositories such as the Library of Congress and the National Archives. But today there has been a proliferation of electronic versions of primary sources on the Internet, and you

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not foolproof. There are always students in the online environment who you just can't get to. It doesn't matter if they're watching the best videos in the world or if I'm writing them directly or if the assignment is about reflection. Whatever it is, they're guarding themselves and they're guarding their emotional connection to learning."

Even though the content may be emotionally engaging, the discussion it generates may not be.

"One of the biggest barriers to online learning is our inability to respond in the moment, unless we happen to be on live chat or video, which is really rare in most of the online learning world," Van Sant says.

That moment after viewing some emotionally engaging content passes quickly. In a typical online learning environment, students react and post to a discussion board or blog and wait for a response. "I think it's one of the downsides of asynchronous learning. You lose that opportunity for the teachable moment," Van Sant says. "There are many positive aspects to online learning, such as thoughtful reflection. One of the things I see, the students who do not often volunteer or engage in on-the-fly discussion in a face-to-face classroom will turn around in an online environment and become significant discussants. Not that they're lazy in the classroom; they just don't process information on the fly quite like somebody else."

Despite the limitations of asynchronous communication, it still can create an emotional connection that supports learning. For example, collaborating on a wiki can be just the thing to motivate and engage students.

"If we're working on a wiki together and you edit something of mine, chances are there's a mild emotional expression associated with that—I don't like the edit, I'm sensitive about the edit, or I'm thrilled with the edit. But it's personal because I wrote it and you changed it. Can I trust you? That's an emotional experience. It might be a positive emotional experience. It might be a negative one. Whatever it is, it contains that seed, that very small element of an emotional connection to it: ownership."

Another obstacle to creating emotionally engaging learning environments is that many online instructors are not technologists. "They're teachers, they know their subjects, but they don't necessarily do a good job from a pedagogy standpoint," Van Sant says.

Many online instructors take a teacher-centered approach to pedagogy, posting PowerPoint presentations, notes, readings, assignments, and tests and quizzes and "tell students to go forth and learn," Van Sant says. "Really good online teachers have taken up the challenge to learn about the various tools."

"The classroom must be a learning community. In an online environment, you must be sure you are using the tools to make that happen. And these are the blogs, wikis, Web 2.0 tools and social bookmarks, and the discussion boards. The interactivity creates communities. When that happens, you've got far greater potential of engaging that otherwise somewhat unengaged student," Van Sant says.

Instructors who seek to create learner-centered online courses often read the work of Howard Gardner on multiple intelligences and think that for every lesson they've got to create eight different kinds of assignments to reach the learning style preferences of all their students. But Van Sant assures them they need not go overboard in accommodating all learning styles.

"The goal isn't to cater to all eight individual multiple intelligences. It's about providing, over the range of a course, the opportunity for people to learn and express their learning within their strengths and not always have to operate within their deficits. To do that, you need variety. You need redundancy. You need multiplicity. You need different ways of sharing and knowing. … What happens here is working in a much richer environment. It is a challenge for us to understand that in this rich environment we've got to become masters of that domain."

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The Online Instructor's Hidden Assistant: The Online Student

By Errol Craig Sull

Teaching any online class is time-consuming and can be a juggling act. The instructor must keep students engaged and motivated, adhere to a variety of deadlines, quickly answer all student emails and postings, react to in-class "emergencies," stay on top of all school policies, and teach the subject in an easy-to-understand manner—while remaining a patient, upbeat, and constant presence through it all. This is no easy task, and while we each have developed approaches to help us, there is one often underused "tool" that online instructors can employ: the students in one's course.

When students are asked to help out, either directly or indirectly, a course can become more efficient and will run more smoothly, and the students can become more engaged with fewer concerns. Following are some suggestions on how to make the best use of your students as "assistants."

Check out any suggestions and information found in discussion or chat forums. In the discussion and chat features of online courses, students offer information, insights, criticism, and suggestions on specific instructor questions related to the course—as well as on other student postings, the course overall, and even the instructor himself/herself. Read these thoroughly; there is much to be learned about problems in the present course, concerns students have with the subject matter, and confusion about instructor directions or comments. These serve to warn you of concerns that need to be immediately addressed by you—and prevented in your future courses.

Note student complaints and suggestions during the course. Students will write to you throughout your online course, either in response to something you posted or with an unexpected message—and each of these communications has the potential to help you become a better instructor. This can occur through suggestions on how to improve your teaching methods; on being more careful with your comments, grading, or assignment notations; on your choice of overall language and tone in postings; on your timely response to student queries—the list goes on. What you never want to do is to read a negative student posting and react in an emotional manner; this only hurts the student, the course ... and you.

Take seriously all student evaluations. Many online instructors blow off student end-of-the-course evaluations, especially those that are negative; they feel that the students are reacting unfairly on a personal basis (i.e., "I got a bad grade in this course, so I'm going to get even by giving a bad evaluation"). While this certainly happens at times, it is the exception; indeed, student evaluations can provide an instructor with insightful, interesting comments—often addressing issues that the instructor may not have been aware of throughout his/her course. So read these evaluations, learn from them, and become a better instructor with their help.

Get a better sense of student learning needs from their lives. One of the biggest complaints students have about online courses is that they are too generic and theoretical, with little or no thought given to a course's application in students' real lives, in terms of "This is what I'm doing now" or "This is what I will be doing." Yet when course information does touch the students in a meaningful, truly useful manner, it keeps students more engaged in the assignments and creates a better rapport throughout the course. Two ways to ensure this are by reading the student biographical information that typically is posted at the beginning of a course and by posting a relevant question to the class, such as "How will the information in this course prove helpful in your everyday lives?" Use the information you learn about the students to insert activities, post resources, and offer discussion or chat questions that make the course more pertinent to them.

Post questions that will benefit the students and you—and your future courses. Ask class and individual questions of students relating to their experience in the course, their professional interests, and their course concerns. Don't hesitate to ask students about other areas of the subject matter they would like to explore, what they think could make the course a more positive experience, and their overall reaction to your teaching of the course. By seeking this information, you can learn much to refine the course while it is being taught, to direct the course more toward student needs, and to improve upon future courses you teach.

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Seek out student "experts" in online courses and technology—and use them. Just because you are the one teaching the course does not mean you know everything about the use of computer technology or the strategies to use in taking an online course. Many students have superb computer skills or are particularly experienced in pursuing an education via distance learning. Early on, ask a question to the class that will bring these people forward; then continue to ask for their input along the way. Inquire of those with computer expertise whether you can use them as "tech assistants" in the course, so that other students could go to them with computer-related questions. These student "experts" and their information can save you time, keep your class running more efficiently, and minimize the student confusion level.

When necessary, employ a buddy system to help weaker students. You will come across a student or two whose computer skills or basics in the subject you're teaching may be very weak; the attention you must give all your students makes giving intense individual assistance to these students difficult if not impossible. To help, set up a buddy system: ask for student volunteers who will be available to answer another student's questions during the course. You will find there are always students willing to volunteer; the end result is a class that is stronger and thus more engaged and vibrant. (Note that you should never promise extra credit or the like—it is not fair to the members of the class who may not have those strengths to offer.)

Be aware of problem areas that students encounter in navigating the course site. No course management system or course structure is perfect. Keep a master checklist of all items to look over before a course begins, and add those legitimate ones that students point out. This will only ensure that your next courses go smoother yet.

Do a student website hunt activity. The more resources you can offer students that help in the subject area being taught and that improve overall course rapport and engagement, the better. One way of improving these aspects is by posting a student activity or discussion question that requires each student to do two things: post a list of three websites that are helpful in better learning or understanding any aspects of the course, and post three websites that are just cool, unusual, or interesting (but have no relation to the course). One sentence describing each website must also be included. By doing this activity, the students gain additional information on the course topic and also enjoy a bit of fun that breaks up the seriousness of the class. Together, these translate into more student engagement, interest, and interaction in the course.

Let students remind you of your responsibility and role as an online instructor. Each student comes to you for guidance, information, insights, and suggestions on a subject so that he or she can become more adept with that subject. It makes no difference whether this is a core subject for a student's major, a refresher course for a profession or certification, or an elective: the students themselves serve as a constant reminder that you are in the role of instructor because of your subject knowledge, your ability to teach, your adeptness at instructing online, your high ethical and moral standards, and your commitment to your school's rules and policies. Never forget any of these elements; when you do, the students lose, the school falters, and you disappoint—all results that you never want in your teaching portfolio.

REMEMBER: Holmes has Watson. Donald Duck has Huey, Dewey, and Louie. Batman has Robin. The importance of assistants can never be overstated.

Please let me hear from you! Send along suggestions and information for future columns. You can always reach me at *errolcraigsull@aol.com.* And remember: please forward me your computer tips and suggestions for making teaching in the online classroom more efficient and productive.

Errol Craig Sull has been teaching online courses for more than 14 years and has a national reputation in the subject. He has written and conducted workshops on it and is currently putting the finishing touches on his next book: How to Become the Perfect Online Instructor. @

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Video

The following are some of the program's video elements:

- **Classroom observation—** Students record observations and edit and upload parts that they think are important for classmates to view.
- **Synchronous video viewing/discussion—**The platform enables students to view videos as a group and conduct a live video conversation (similar to Skype). "If we're going to talk about behavioral learning theory, for example, we go out and interview people who are known in that area and talk about key points in how the behavioral approach works," Sundt says.
- **Embedded comments—**The platform also enables students to take notes and insert comments at specific points in videos. This feature will be useful in critiquing videos of student teaching, Sundt says.

Animation

One of the goals of this academic program is to help students understand and apply learning theory. The program includes animations to illustrate how learning theory operates in the classroom. This supplements live video and clearly conveys some concepts that are difficult to simulate with live action video. "Sometimes it's easier to do with animation than with live actors because you can control the animation to a greater extent," Sundt says.

Data collection and assessment

As with any academic program, assessment is an important element in determining how well students are learning. And the platform was designed to provide a wealth of assessment data. "Some of it is looking at where they go, how long they spend on it, and how often they return. That's all trackable," Sundt says.

In addition, each page has a feedback button, so the school can track which content and/or pages are giving students trouble.

"Higher education in general is not great about assessing learning outcomes, and yet, with a platform like this, which is literally reporting every move that students make on, there's not much of an excuse to not try to figure out what seems to be correlated with learning outcomes and what does not," Sundt says.

Portfolios

Throughout the program, students are creating products—journals, notes, videos, discussions—that will likely be useful during their time in the program and in their careers.

All of this content will be available in online student portfolios, which include a private section for the individual student to view all their work in the program; a "showcase," in which students can compile the highlights of their work to show potential employers; and a contacts page to maintain the connections with fellow students, instructors, and others connected to the program.

Contact Melora Sundt at sundt@usc.edu. *For more information about the program, visit* http://rossier.usc.edu/mat.

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now can use these sources to augment student understanding and involvement.

There are numerous places to find primary sources that you can use to enrich your course readings, discussions, and assignments. Some resources require a subscription or other payment but may be available freely through your institution's library. Here are a few to consider:

- Magazine archives, such as the *Time* magazine archive (*www.time.com/time/archive*)
- U.S. census data (*www.census.gov*)
- The Library of Congress' American Memory site (*http://memory.loc.gov/ammem/index.html*)
- U.S. government documents and records at the National Archives (*www.archives.gov*)
- Film databases such as The Internet Movie Database (*www.imdb.com/list*)

Make sure to evaluate both the primary sources and the providers of those sources before using them in your courses. In general, look for websites that do not have an agenda other than to provide information. Educational or governmental institution sites often (but not always) fit this bill.

Last but not least, primary sources can keep faculty and other experts humble. Instructional technology textbooks from the not-too-distant past, for example, discuss uses for overhead projectors and filmstrip projectors. No doubt, what we know today will be old news in the future too.

Patti Shank, PhD, CPT, is a widely recognized information and instructional designer and author who helps others build valuable information and instruction. She can be reached through her website: www.learningpeaks.com.