Teaching For Success

New Interactive Pop-Up Notes

Look for ideas on how to master a specific Critical Success Task by clicking on the pop-up note attached to each article. This note explains the relationship between each article and one of the six Critical Success Tasks (CSTs) all instructors should work to master.

In This Issue:

The New Surge in E-Learning: How Does It Add Up?

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Community colleges nationwide now enroll nearly half of all online college students.

The *New York Times* reported in July 2008 that distance learning registration numbers are between 50 and 100 percent higher this year than last year.

This rise in online enrollment parallels the rise in the social and economic struggles and information technology challenges of our time.

As fuel oil and gasoline prices have risen, so has the number of students choosing to stay home and study online. Some students who choose to attend classes in person now pay more for gasoline than for tuition.

Increasing economic strain means students are increasingly making registration decisions

continued on page 2

Optimize Instruction with a Simple Teaching Sequence

Teaching in formal educational settings is a problem. Why? It's time constrained, and time is the overarching constraint. Time restrictions generate the need for carefully orchestrated goals, outcomes, plans, check points and evaluations. Teaching for success today means working to optimize the learning environment and a learning process that works within institutionally imposed time limits.

TFS Publisher, Jack H. Shrawder

To optimize learning, follow a module sequence rather than a shoot-from-the hip approach. If you do not have a model to follow, I suggest the PIE-R3 schema: Prepare and focus the mind, Input new knowledge, Explore, solve, discuss, predict and apply the new knowledge, Retain by practicing and working with new knowledge, lastly, Reconfirm by testing, and Reflect on improving the process. Look for a more detailed description of the PIE-R3 sequence in Volume 19. No. 6.

Surge in E-learning: continued from page 1

based on their pocketbooks rather than their personal, professional, or degree goals.

They are thinking about how they can save time and money by decreasing their trips to campus—up to $2,000 in fuel costs per year—and by buying fewer expensive textbooks.

In Pennsylvania, Drexel University's online program has grown in the last five years from 100 to 5,700 students, nearly 20 percent of university enrollment, as reported in July by the *Philadelphia Inquirer* newspaper.

What are the Implications?

What does this all mean to you as an instructor in an online learning environment? First, a cyberspace classroom presents an invisible barrier, meaning less control over students' virtual desktops.

As online class sizes rise, facilitators are pressed beyond reasonable limits to deliver information and learning on a daily basis. The online student-teacher ratio shrinks, as does class effectiveness. Individual preparation time for both students and instructors also suffers.

What's the Magnitude of this Surge?

At the University of Colorado, there were recently 361 unserved students on the distance learning waiting list for the Fall 2008 term alone. Over the past year, the University of Cumberland in Kentucky saw a 75-percent increase in summer enrollments, while the champion Campbellsville University tracked a 114-percent online enrollment jump since last summer, scrambling at the leading edge of fuel price rises.

Students want to take more than one class at a time, and not have to drive to campus more than once per week. Therefore, many more faculty and staff will have to be trained to deliver high-quality online courses, and more of them.

Class Size Likely to Increase Sharply

High instructor participation is crucial. Cyber-class sizes will be much larger. More teaching assistants and virtual librarians must be hired and trained as well.

More courses will become hybridized, or offered online in scope and numbers never seen before.

It's the Labor

Online learning is much more labor-intensive for instructors and students alike.

Some cyber-profs report spending 12 hours per week in their online classrooms, as compared with three or four per week for the same traditionally taught class. And still, it is more expensive for a college or university to offer an online course, with fees increasing this year as much as $50 per cyber class per student.

What May the Future Hold?

Future implications are manifold. Seventy-nine percent of all American college students currently live off campus. With the price of gas and commuting, many are deciding to cut those costs by studying online whenever possible.

It has been widely reported that online education is one of the fastest-growing industries worldwide, with a projected $70 billion market by the year 2015.

For example, in the state of Washington, there are more than 70,000 college students studying right now in online classrooms. Four years ago, there were about 40,000! Current research continues to support estimates that an online education is equal in quality to that from a traditional classroom setting for students in the United States.

In exactly what ways the current energy crunch and economic crisis will affect colleges and universities is yet to be seen, and instructors need to rise to the occasion and seriously consider if this might be an historically shining moment for higher education.

Look for these tips on the following pages!

My Top Ten Online Teaching Tips

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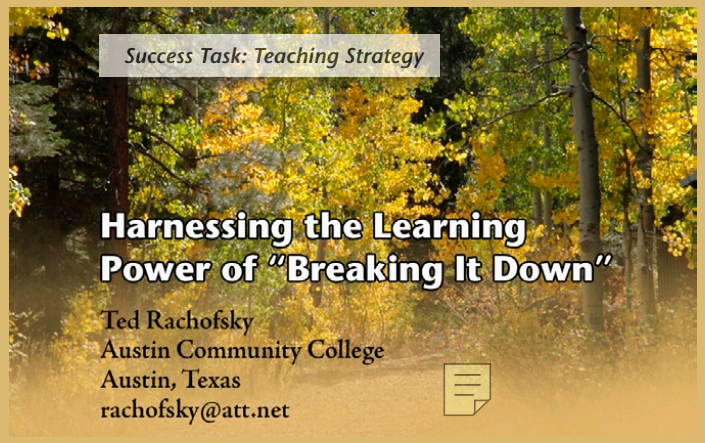

Success Task: Teaching Strategy

Harnessing the Learning Power of "Breaking It Down"

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Writing an article can be very difficult. Sometimes I wind up staring at a wall for hours, waiting for the words to come to me. On the other hand, sometimes the words just jump from my mind onto the page faster than I can type them.

That's what happened last Friday when a pair of seemingly unrelated incidents provided the theme for this article. Friday is the day I change hats and go from being a college math teacher to being a middle-school trombone teacher at my daughter's school.

The Plight of the Trombone Player

One of the students was having a difficult time playing a rapid passage. Because trombone playing involves so many obstacles that must be attacked simultaneously, the method that works for me is to "break it down" and work on only one process at a time.

So that's exactly what we did. To begin with, I slowly sang the passage. The student concentrated on getting the slide in the right place at the right time. Gradually I increased the speed of my singing and gradually he increased the speed of his slide movement.

By the time we got the passage "up to tempo" he was changing his slide positions exactly at the same time that I was changing my singing of notes. Then, he put his trombone up to his lips and started blowing. Magically, the right notes came out at the right time.

The Two-Cent Lesson

Later that day I walked into a copy shop and made 10 two-sided copies of some music I had written. The cashier pointed her sales gun at a bar code and I paid $1.70 plus tax.

As I walked away reading my receipt, I discovered that she had charged me for legal-sized copies and mine were standard letter size.

The overcharge was 3 cents a copy, and since there was nobody in line behind me, I decided to rectify the mistake.

"You overcharged me 3 cents a copy and that's 30 cents," I said. She quickly shoveled out the change from the cash register drawer and nervously gave it to me.

"As long as we're doing this the right way, you owe me 2 cents more for the 8.25% sales tax," I added.

She gave me a look of disbelief. I quickly produced a piece of paper and wrote down the calculations which I had done in my head. She gave me 2 cents more, looking at me as if I were from Mars. As I was walking away, I realized she had no idea what I was talking about because she couldn't follow my reasoning.

Steps That I Can Understand

Driving away from the store, these two incidents mixed together and showed me a good way to teach math. Just as the technique of "breaking it down" and concentrating on only one step at a time comes naturally in trombone teaching, it also has its place in teaching mathematics, and probably other subjects as well.

The next day, when I was answering a student's question, the connection became clearer. I outlined an overall plan for how to solve the student's problem and then got down to specific steps.

I worked out the first step and then asked the student to finish it. After successfully finishing the problem she said, "You're such a good teacher."

continued on page 4

OTT #1 Get the Structure Right

by Dave Bequette, Butte College

Online instruction focuses on quality course design concepts that are often forgotten in the face-to-face classroom. Working in an online environment forces a teacher to design courses in a logical, structured, easy-to-follow format. Flaws in course design become more critical when there is no option to modify instruction "on the fly," as in face-to-face teaching.

OTT #2 Engaging Content

by Dave Bequette, Butte College

Transferring face-to face course content to an online format does not always work. Online content should be limited to no more than six main points per presentation. A lecture that works in class but is boring in print will not be read.

OTT #3 Demanding Technology

by Dave Bequette, Butte College

Online instruction relies heavily on technology skills beyond the beginner level. Teachers need a command of file structure, formats for saving documents that will display correctly on student computers, and an understanding of the communications skills appropriate to an online environment.

Managing Groups More Effectively

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Have you ever introduced the idea of group work to your classes and heard a chorus of groans and complaints? Well, I have, and I decided to instigate a change.

Last semester I taught a number of classes in public speaking, small group discussion, and interpersonal communication.

In each of the classes that had group projects, I suggested the following exercise for the group to help them achieve more effective outcomes.

Important First Steps

First and foremost, they exchange names, phone numbers, email addresses, and agree on a time they can all meet. Next they participate in an activity that takes about 20-30 minutes. During this time, they provide the instructor and their teammates with answers to following questions:

What rules and consequences will govern your group?

These might include the:

- Time the meeting starts
- Penalty for coming late
- Results of missing a meeting

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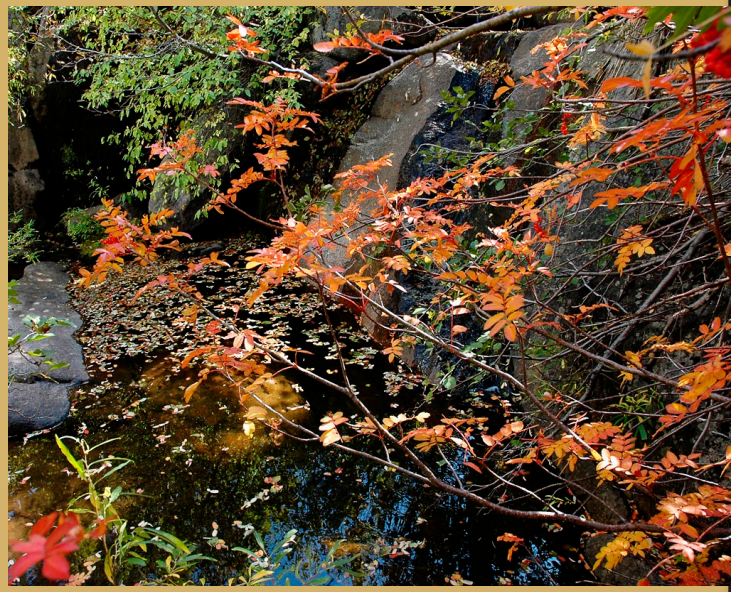

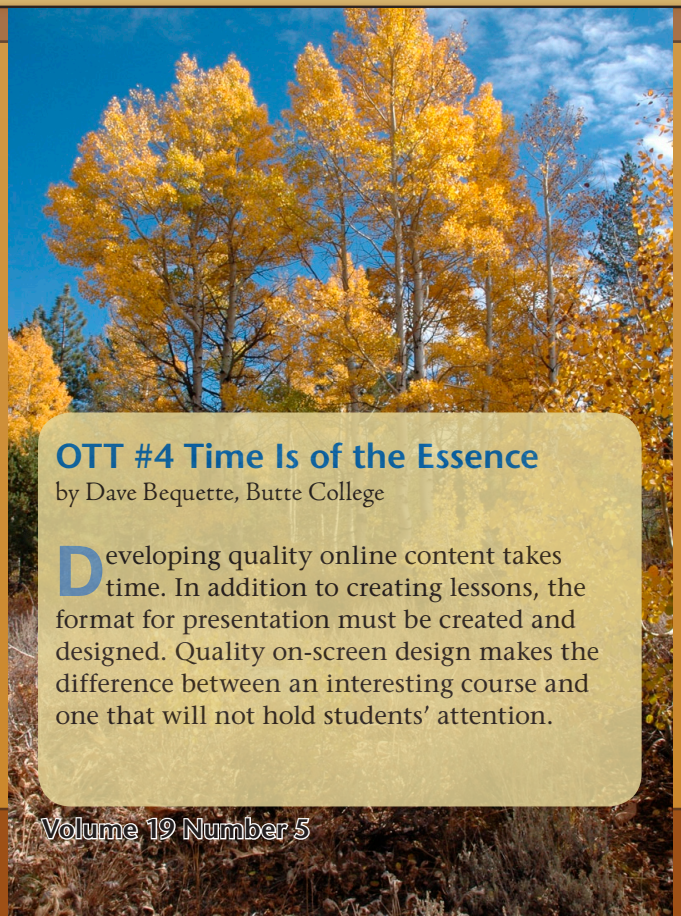

OTT #4 Time Is of the Essence

by Dave Bequette, Butte College

Developing quality online content takes time. In addition to creating lessons, the format for presentation must be created and designed. Quality on-screen design makes the difference between an interesting course and one that will not hold students' attention.

Breaking It Down: continued from page 4

Then she continued, "You really 'break it down' into steps I can understand."

Her choice of words connected all the dots at once and I saw what she meant: I have to be rigorous in solving problems, meaning I need to go through every step and not skip any. As an experienced teacher, I've done these or similar problems so many times before that I can see the answer, or the process used to get the answer, before I even start explaining the problem.

Experience and familiarity play a big part in my insights. This becomes more obvious when I am teaching multiple sections of the same course that meet within a day of one another. It's too easy to forget why these problems are simple for me and fall into the trap of assuming that the students are approaching the problem the same way I am.

I sometimes find myself whizzing through a problem at breakneck speed, taking shortcuts that are obvious to me, and forgetting that they are not obvious to the class.

Then I look up and see a familiar expression on the students' faces: It's the same one the cashier gave me when I quickly explained why she owed me the extra 2 cents.

I've reconfirmed that it's mandatory to rigorously and logically go through these steps so everyone can understand it. Slowing down and "breaking down" problems into a logical, step-by-step process works for teaching trombone to middle school students, and for teaching mathematics at the college level.

The 1:9 Cause and Effect Reward

Success in any field is about finding the cause and effect relations that govern its operation. For every hour you spend learning these relationships, you are rewarded by saving nine hours of time getting to the outcomes you desire. Teaching For Success is designed to help you learn cause and effect relations in teaching.

How to Teach Critical Thinking More Effectively

Dr. Brian R. Shmaefsky
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The ideal goal of classroom teaching is to encourage content learning that can be applied and retained well into the student's lifetime.

Ample educational research confirms the notion that college students need to engage in critical thinking to promote long-term content retention.[1] It's particularly important for students in career-track courses in which the content is directly applicable to their future profession.[2]

Case studies are a natural means of integrating effective critical thinking into college teaching.[3]

Critical Thinking Basics

In 1605, Francis Bacon described critical thinking as a "desire to seek, patience to doubt, fondness to meditate, slowness to assert, readiness to consider, carefulness to dispose and set in order; and hatred for every kind of imposture."

In spite of capturing the essence of critical thinking, this description has little utility as a guide for incorporating critical thinking into the classroom. In a classroom application, critical thinking is best defined as exploring questions about and solutions for issues that are not clearly defined and for which there are no clear-cut answers. It reflects real-world problem-solving situations that cannot be answered as if the problem were a multiple-choice, rote-memory question.

Key components of a critical thinking module:

- Teaching objectives relevant to the course content
- Purpose and goal for the thinking activity
- Realistic question or issue making up the problem
- Pertinent concepts such as axioms, definitions, laws, models, principles, and theories
- Major assumptions likely to be presupposed in the situation
- Information such as data, experiences, facts, and observations
- Interpretations and inferences that lead to conclusions and solutions
- Various points of view underlying the problem
- Consequences and implications to different solutions
- Assessment based on the use of assumptions and concepts

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Managing Groups: continued from page 4

What are your incentives to work together?

- Make each meeting at a local food place.
- Bring snacks to the meeting.
- Plan a celebration for completion of the project.

How will your group operate smoothly and efficiently?

- What are the ultimate project goals?
- What are the main objectives and how will they be accomplished?
- What type of process do they want: interactive or lecture style?
- What is the goal for their group presentation?
- What are the strengths and weakness of the individual group members?
- Who will take the role of the: researcher, writer, editor, computer whiz, organizer, creator, relationship builder, etc?
- What is the plan to solve conflicts within the group?
- What process is used to open a discussion: a confidential vote, outside intervention or some other activity?

Bottom Line

When reviewing the results, I saw much more effective group interactions. Yes, there were disagreements, but because the groups had a strategy to overcome the problem, results were quickly achieved. There was also noticeable reduction in the numbers of students coming and complaining about working in groups.

OTT #5 One Size Doesn't Fit All

by Dave Bequette, Butte College

Some courses should simply not be taught online. In the beginning of the online instruction ("distance learning") movement, the idea was so appealing that teachers created course outlines for inappropriate online courses. Bowling 101 online, anyone? Care must be taken to assure that online presentation is the best way to deliver the curriculum.

Critical Thinking: continued from page 5

Major Design Elements

A properly designed critical thinking activity has two major building blocks: (1) it identifies a set of skills for processing and generating information and beliefs, and (2) it relies on the intellectual commitment of the student using those skills to guide their decision-making behavior.

Critical thinking activities require students to follow a scenario sequenced on the steps of Bloom's taxonomies of cognitive and affective learning. Cognitive learning deals with mental skills, whereas affective learning involves attitudes and moral decision-making.[4]

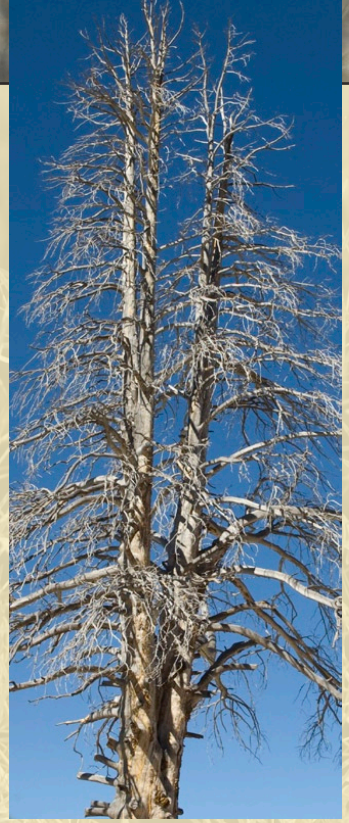
In cognitive learning, critical thinking engages students in activities in which they analyze, synthesize, and evaluate knowledge, comprehension, and applications of principles learned in a class.

Key Cognitive Outcomes

The following outcome list is associated with Bloom's cognitive learning skills:[5]

Knowledge: Count, Define, Describe, Draw, Find, Identify, Label, List, Match, Name, Quote, Recall, Recite, Sequence, Tell, Write

Comprehension: Conclude, Demonstrate, Discuss, Explain, Generalize, Identify, Illustrate, Interpret, Paraphrase, Predict, Report, Restate, Review, Summarize, Tell



Application: Apply, Change, Choose, Compute, Dramatize, Interview, Prepare, Produce, Role-play, Select, Show, Transfer, Use

Analysis: Analyze, Characterize, Classify, Compare, Contrast, Debate, Deduce, Diagram, Differentiate, Discriminate, Distinguish, Examine, Outline, Relate, Research, Separate

Synthesis: Compose, Construct, Create, Design, Develop, Integrate, Invent, Make, Organize, Perform, Plan, Produce, Propose, Rewrite

Evaluation: Appraise, Argue, Assess, Choose, Conclude, Critique, Decide, Evaluate, Judge, Justify, Predict, Prioritize, Prove, Rank, Rate, Select

What About Affective Learning?

Affective learning has students value, organize, and internalize emotional phenomena. The educational outcomes for affective learning are based on a personal choice or action that the student is expected to use to resolve the issue.

This area is best measured using student self-assessment to evaluate the standards or outcomes.

Any evaluation must recognize that choices are often relative to the situation. And frequently the situation under which the behavior is expected must be justified by the student.

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OTT #6 Open the Channels

by Dave Bequette, Butte College

Online classes do not lack communication opportunities; indeed, the opposite is true. Each online class should have a component of discussion or group work to keep interest high. Students accustomed to using Facebook, MySpace, and instant messaging relate well to instruction that uses interactive communication.

OTT #7 Who's Doing the Work?

by Dave Bequette, Butte College

The possibility of cheating and student abuse of online instruction is a major concern. Other teachers in my group related stories of students working together on a test, and we learned strategies to deal with student dishonesty. There was common agreement that cheating is not just an issue with online instruction. Students in face-to-face classrooms exercise equal skill in finding ways to pass tests using technology illegitimately.

OTT #8 Remember ADA Requirements

by Dave Bequette, Butte College

Eploring online teaching gave me an appreciation of lesson design that meets the accessibility standards put forth in the Americans with Disabilities Act. The required modifications range from simple ones, like a larger font and sensitivity to contrasting colors, to more technical ones, including the use of written subtitles to help the hearing-impaired. Remember that accessible design is no longer a suggestion but rather a mandate by the federal government.

Critical Thinking: continued from page 6

Case Studies Basics

Cases studies add a cooperative active learning component to critical activities. Active learning is the process of analyzing, communicating, and exploring new information or experiences. It also incorporates the analytical thinking skills essential for critical thinking activities. Analytical thinking involves separating and distinguishing the crucial elements of a concept in order to understand its essential nature.

A case study is best defined as an analytical exploration of one particular situation or subject for the purpose of gaining depth of understanding into the issues being investigated.[6]

Case studies can be assigned to students as individual or collaborative group projects. They can be administered as an in-class project or as a take-home assignment.

A typical case study format:

- ❑ Introductory discussion that leads into a specific problem
- ❑ Preparation expected of students
- ❑ Opening questions
- ❑ Time for discussing or researching the issues
- ❑ Concepts to be applied and extracted in discussion or research
- ❑ A means for students to express their conclusions for the case
- ❑ Student self-evaluation
- ❑ Summative evaluation by faculty

Optimizing the Case Study Approach

An effective case study problem must first engage students' interest and motivate them to probe for deeper understanding of the concepts being introduced. In addition, it should relate the subject to the real world, so that students have a stake in solving the problem.

Good case problems require students to make decisions or judgments based on facts, information, logic and/or rationalization. Students should be required to justify all decisions and reasoning based on the principles being learned. Problems should require students to define what assumptions are needed (and why), what information is relevant, and/or what steps or procedures are required to solve them.

Length Considerations

The length and complexity of the problem or case must be controlled so that students realize that a "divide and conquer" effort will not be an effective problem-solving strategy.

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Brain Facts: Thinking Burns Calories

The brain works 24-7, comprises two percent of body weight and devours 20 percent of the energy the body produces.

—from *How the Brain Learns*, David A Sousa

OTT #9 It's Tool Time

by Dave Bequette, Butte College

Online instruction systems give the instructor many tools to facilitate learning. For example, various testing tools allow for the administration and scoring of a variety of test formats. In addition to tools built into the learning system, several websites offer special instructional tools compatible with online instruction.

OTT #10 A Green Effect

by Dave Bequette, Butte College

Online instruction can be the ultimate supporter of environmental sustainability. Delivering instruction to various locations rather than meeting in a traditional classroom saves precious energy expenditures. Providing online materials that can be read without printing them out is an excellent way to help the environment.

Critical Thinking: continued from page 7

For example, a problem that consists of a series of straightforward end-of-chapter questions will be divided by the group and assigned to individuals and then reassembled for the assignment submission. The case should be open-ended and complex enough so that "tough decisions" must be made and there is no immediately obvious answer.

Need Case Study Ideas?

The National Center for Case Studies Teaching in Science website has a wonderful links page for collecting examples of case studies for the different disciplines: http://ublib.buffalo.edu/libraries/projects/cases/sites.htm.

Many of the science case studies on this web site are also applicable to education, political science, psychology, and sociology courses.

Other good case studies websites are hosted by Vanderbilt University (http://www.vanderbilt.edu/cft/resources/teaching_resources/activities/case_studies.htm) and Pennsylvania State University (http://tlt.psu.edu/suggestions/cases/).

Good News Results

Critical thinking using case studies forms the pedagogical foundation for students in many courses at Lone Star College–Kingwood. Pre- and post-test studies were conducted in the Biology Department on classes taught with and without case studies. These studies show that case studies improve student grades on traditional concept testing.

In addition, there is an increase in course attendance and in overall course grade. Faculty indicated a higher degree of satisfaction with their students and teaching when using case studies to reinforce difficult concepts.

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Two Growth Questions that Can Change Your Teaching World!

Memorize these two most powerful improvement questions and then answer each after every class or online session:

- **What did I do right this time?**
- **What can I do better next time?**

Your answers applied to your teaching (or any other life task) today will enhance your job performance and personal growth.

Online Teaching First Steps

by Dave Bequette, Butte College
dbeque@gmail.com

So what have I done since becoming certified as an online instructor? First, I enhanced one of my face-to-face classes with Blackboard tools. I now also offer my students important course documents in electronic form, collect work from my Microsoft Word class via an assignments tool, and post extensive collections of web links for further study online. My future plans include using communications tools such as the discussion forum and online chat to involve my students in class discussion outside of class.

If you take the opportunity to try online teaching, you may be pleasantly surprised at the flexibility and possibilities it offers.

Success Through Action: Bonus Gold Section

Success requires action. Here's how to get the most benefit from the success concepts in this issue... review and application breeds retention deeper understanding. So What's the big Idea?

Big Idea 1. The New Surge in E-Learning: How Does It Add Up?, pp. 1-2

Where do you stand on online teaching and learning?

❑ How do you compare the effectiveness of online teaching and learning compared to traditional classroom-based teaching?

❑ If you have taught an online course what is it about your online experience that caused you to support this type of teaching?

❑ What is it about your online teaching experience that caused you to question this mode of teaching?

❑ What is it about your online teaching experience that you most need to master to better enjoy online teaching or prepare you for your first online teaching experience?

❑ How do you plan to learn this skill or obtain this knowledge?

Big Idea 2. Adhering to a Logical Teaching Sequence Can Optimize Learning, p. 1

❑ Teaching with a system or sequence of instruction makes learning much easier for your students. Your system should be flexibile to help you maintain student interest through variety but at the same time should include an understanding about how people learn. List your the steps you use to teach:

❑ How did you arrive at this plan or teaching system? What are its strengths? What areas need improvement?

❑ If you don't have a teaching system, why not try the TFS PIE-R^3 method? Write the teaching step associated with each letter of PIE-R^3

P _

I _

E _

R_1 -

R_2 -

R_3 -

"A person's main task in life is to give birth to oneself."
— Erich Fromm

Big Idea 3.Manage Groups More Effectively pp. 4-5

❑ According to Rosalyn Kahn, how did she improve group learning? List the key points that she made.

❑ Make a list below of the group learning improvement actions that you will include to boost the effectiveness of your next group learning project.

Big Idea 4. Harnessing the Power of "Breaking It Down." pp. 3-4

❑ What did Ted Rachofsky learn about college teaching from being a middle-school trombone teacher?

❑ How could you apply Ted's chunking idea to solve a learning problem in your class?

Big Idea 5. How to Teach Critical Thinking pp. 5-8

❑ List Brian's key components of a critical thinking module:

❑ Describe Brian's "case study approach."

❑ How can you apply Brian's suggestions to your course?

❑ What results did Brian report from the use of his method?

A Word about Teaching

Praxis

'praksəs, noun

Praxis is about practice as contrasted to theory. Of course, learning theory is important to successful teaching, but so is knowledge of practices that positively impact outcomes.

When you teach for success you become engaged in the process, observing and absorbing student reactions and actions. You are in the moment with your student interacting and connecting with them at deeper levels. You allow your current beliefs about best teaching practices to be modified by experience and student feedback.

This kind of fully-engaged, instructional praxis is a fundamental key to teaching for success.

Call for Authors: Would You Like to Be Published?

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