

CTE Today

A Newsletter for
Teachers at USMA

Center for Teaching Excellence

September 2006

“Tell me and I’ll forget; show me and I may remember; involve me and I’ll understand”

Chinese Proverb

Classroom Assessment, Dr. Mark Evans, CTE Director

Every day you, the teacher, are assessing your cadets’ learning. In class you make eye contact, see if they are nodding in response to your comments, you ask questions, you ask them if they have questions, you engage them in various classroom learning activities and observe their participation — in essence, you are assessing their learning. You are observing all the feedback coming in your direction, and you are making judgments about cadet engagement and level of learning. Other than quizzes, wpr’s and tee’s, what more can you do to assess cadet learning? Lots!!!

Perform a Google search on “classroom assessment” and you’ll get no less than 25 million hits. Perhaps the most noteworthy reference you’ll find is the book by Tom Angelo and Pat Cross entitled: *Classroom Assessment Techniques, A Handbook for College Teachers*. In this book the authors detail 50 ways of obtaining additional data from students to assess their learning; a few are listed here:

- ... Applications Cards
- ... Diagnostic Learning Logs
- ... Documented Problem Solutions

- ... Exam Evaluations
- ... Minute Paper
- ... Muddiest Point
- ... Problem Recognition Tasks
- ... RSQC2
- ... Stop, Start, Continue
- ... Student-Generated Test Questions
- ... Teacher-Designed Feedback Forms
- ... What’s the Principle?

For more information on any of these techniques, go to the Angelo and Cross book, or to the CTE website: <http://www-internal.dean.usma.edu/centers/cte/useful.htm>.

But what exactly is classroom assessment? Tom Angelo (1991) himself described it best: “Classroom Assessment is a simple method faculty can use to collect feedback, early and often, on how well their students are learning what they are being taught. The purpose of classroom assessment is to provide faculty and students with information and insights needed to improve teaching effectiveness and learning quality. College instructors use feedback gleaned through Classroom Assessment to inform adjustments in their teaching. Faculty also share feed-

back with students, using it to help them improve their learning strategies and study habits in order to become more independent, successful learners.... Classroom Assessment is one method of inquiry within the framework of Classroom Research, a broader approach to improving teaching and learning.”

You will not know how well your cadets are learning until you “ask” them. Classroom Assessment Techniques (CATs) provide you with many ways to ask.

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Using Peer-Constructed Resources as Educational Learning Devices – Learning Should Be Fun, by Dr. Sue Tandy, DPE

Here's a fun way to have your students learn, share and review information with each other. We know that peer teaching places the onus on the student for sharing subject matter with their classmates. Motivational learning opportunities can be afforded by utilizing specific strategies that allow resources to be designed by the students themselves. Allowing your students to be creative can bring an element of fun into the classroom.

Educational Learning Devices

Ask your students to “invent” a self-correcting device that is applicable to a specific dimension, lesson or learning objective for your course. Self-correcting means that the “instrument” has all the information needed to pose a question and allow for corrective feedback. This is a project that all team members must contribute to in terms of construction, ideas, and gathering of materials. Emphasize that students must keep the materials used within the resources that they normally have at their disposal.

Allowing your students to be creative can bring an element of fun into the classroom.

Because there are specific parameters that must be adhered to, each group must work together to meet the proposed criteria of the project. Thus, creating these devices is a collaborative, cooperative problem solving opportunity. At the same time, the process involved in meeting these criteria will call upon the creative talents within the group. It's always interesting to see how different groups approach the problem.

Creating learning devices presents cadets with an alternative activity that allows them to share what they have learned. Use this as an opportunity to move away from traditional assignments such as papers, presentations, etc. It allows students to present information in a different mode, perhaps one that even you may not have thought of!

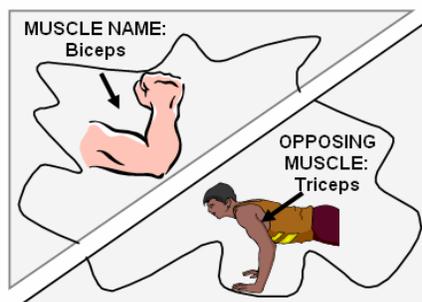
These projects can be geared for use as alternative learning resources for review, for learning new material, or for practical application of information.

Instructor's Objective

The initiative for this project was to seek out creative learning techniques that could be used successfully, to allow students to share their creative activities within the classroom, and to discuss these activities with teaching colleagues. All three of these objectives involve risk-taking: you might not get what you want, but you might be surprised at what you get!

The Theory Behind the Curtain

According to Dunn (2003), students retain information better when it is first introduced tactually or kinesthetically (if that is their preferred learning style), if it is then reinforced through another modality, and finally, if it is shared with or taught to someone else by means of an original instructional resource that they created.



Although allowing for choices, this exercise requires the following structure:

- ... Specific Criteria
- ... Activity and Reporting Alternatives
- ... Small-Group Techniques
- ... A Related Self-Assessment

Criteria for Self-Assessment

For this project, the instructor established the following criteria:

Self-Correcting: The participant must be able to know correct vs. incorrect responses without prompting from an outside source.

Applicable: The information presented must be related to course content.

The Students should be given the opportunity to select additional criteria. For example, one class selected the following:

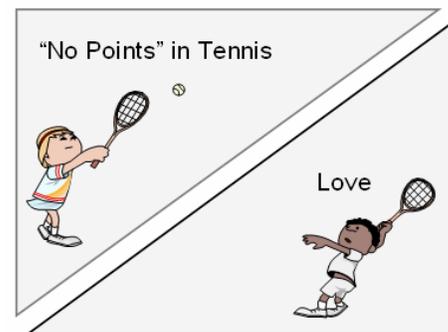
- ... Creative
- ... Colorful
- ... User Friendly

- ... Fun
- ... Does it work?

Getting Started

Organize your class into small groups of no more than four students per group. Each team will be responsible for creating an original learning device based on a topic related to the class material. No two groups may select the same topic. Try to encourage your students to solve the problem creatively by not offering too many prescriptive solutions. Harmin (1994) refers to this technique as “underexplaining” in learning groups. This allows the group to mentally process the problem and collectively organize the solution on their own terms. However, it always helps to have a very basic example of the concept to get the creative juices flowing. Each team should make enough devices for the number of teams in the class (i.e., four teams = four devices). As part of sharing information with their classmates, this will enable all teams to be actively engaged in the activity and reporting alternative. During the sharing/reporting process, you may find your students competing for the most correct answers, or to finish first!

Demonstrate the basic concept. You can use simple task cards to show an example of a self-correcting learning device. Remember, try not to give out too much information in the way of solutions. Your example should have information organized in a matching format that lends itself to being



divided into two parts. Put a key piece of the information on one half of the card, and the information needed to complete the “puzzle” on the other half. For example, a term can be matched with a definition.

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iPod Pilots at USMA, by Jeffrey Rohrlick, CTE

As part of its mandate to be a test bed for new technologies at the United States Military Academy, the Center for Teaching Excellence (CTE) is testing the educational value of iPods for use inside and outside of the classroom. During Fall 2007 Term 1 Dr. Laura Vidler will be conducting an iPod Pilot Program with two sections of LS385 Advanced Spanish Through the Media. In all, 35 Cadets have been given iPods. The primary feature of the iPods used by Cadets in LS385 will be the iPod Voice Recording capability. Cadets will be encouraged as part of the course to make voice recordings of Spanish dialect through interviews with native speakers. These Cadets will then share these recordings (podcasts) with other Cadets via Blackboard. The podcasts will be played to generate course discussion in class. The Cadets will also listen to Spanish-Language podcasts, music, and videos available generally on the internet. Cadets will also be encouraged to be creative and to find other educational uses of the iPods. This will include recording other course lectures, as well as using the iPod as a storage device for content.

Cadets will be surveyed to get their perspective on the iPod pilot project at the end of the semester. The questions posed may include:

- ... How was the iPod used? Was it used as prescribed in the classroom, or was it used in other ways, e.g., recording of other class lectures, storing of course content, listening to additional Podcasts available on the web.
- ... What were the educational benefits of the iPod? - increased Cadet engagement, learning mobility, increased collaboration, etc?
- ... Where was your iPod used? In the Barracks, in the classroom, etc.?
- ... What were the drawbacks of using the iPod?
- ... Would you recommend that the iPod for use in other or all courses at USMA?

At the conclusion of this evaluation process a White Paper will be developed and distributed to the USMA leadership summarizing the key findings of the pilot.

iPod Background:

The use of iPods for teaching and learning is a relatively new phenomenon. Only during the last few years have institutions of learning developed methods for transforming iPod Music devices into powerful tools for learning. Duke University is one of many institutions which have been a leader in the use of iPods. Duke developed a program called the iPod First Year Experience in 2004 as part of a University-wide initiative to encourage the use of technology in education. The program

For more information on the Duke initiative, the Duke University report is available at:

http://cit.duke.edu/pdf/ipod_initiative_04_05.pdf

distributed iPods and iPod voice recorders to over 600 students and was used in more than 33 separate courses in a variety of disciplines. Student in these programs used iPods in the following ways:

Course Content Dissemination Tools:

Portable access to course content such as lectures, songs, historical speeches, and foreign language

Classroom Recording Tool: Capturing Lectures, Class discussion, and verbal feedback via the iPod Recorder

Study Support Tool: Repeated listening and repetition of commercial and original audio content

File Storage and Transfer: The iPod used to transfer or back-up files, particularly large multimedia files.

Some program benefits included:

- ... Greater student engagement in class discussions
- ... The convenience of portable digital content
- ... Location-independent access to course materials

Benefits for Learning:

The USMA iPod pilot project has many potential benefits for Cadet learning. Of the 7 Principles of Good Practice for in Undergraduate Education, the iPod has the potential to do the following:

- ... Encourages active learning - Technology has been shown to be a way to get Cadets engaged in learning.

- ... Develops reciprocity and cooperation among Cadets – Cadets will be listening to each others' podcasts and providing support and feedback.
- ... Encourages contact between Cadets and faculty - Cadets will record podcasts and submit these to the instructor.
- ... Give prompt feedback – The instructor will be able to provide immediate feedback to podcasts via email or in class.
- ... Communicates high expectations – Cadets will know that they are expected to do first-class work due to participating in this advanced technology pilot.

The ultimate goal of this iPod pilot program is to help academy leaders determine whether or not the iPod offers long term benefits to the Academy as a whole, especially in the area of technology use to support teaching and learning. If you are interested in learning more about iPods, contact Jeffrey Rohrlick at ext. 4670



TEACHING-RELATED REFERENCES FOR ALL FACULTY TO CONSIDER

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Using Peer-Constructed Resources as Educational Learning Devices

— continued from p. 2

A muscle can be matched with an opposing muscle. Cut the card in half in such a way as to divide the information into two stand-alone items. Select topic-appropriate photos, sketches or even shapes that would act as a self-correcting element for the students to “look” for in order to connect two matching pieces of information. Have your students complete the correct matching of each card by using either the words or the pictures as information that needs to be matched. Using a freeform outline as the clue is a simple self-correcting method. Different task cards for each topic can be constructed for future lessons, and you can keep sets of cards organized by topic.

A more challenging technique might be to put matching numbers, stickers or stars on the back of each half of a pair of cards; when the set is completed, students can turn the cards over to see if all the numbers match. Again, this example only demonstrates a basic level of understanding, but it gets the technical concept across: self-correcting, applicable to the subject matter.

Levels of Thinking

Educate your students as to the importance of the various levels of critical thinking in relation to their assignment.

Encourage your students to keep the mechanical concept simple while at the same time moving away from basic facts and details to a demonstration of application and analysis. Johnson (2005) gives some good examples of how to help your students recognize higher-level reasoning skills via Bloom’s Taxonomy of cognitive domains. She would agree that the creative process involved in the “invention” of an educational device actually demonstrates synthesis of information, to a degree. Furthermore, if you are able to inspire your students to demonstrate opportunities for evaluative judgments as part of their activity, consider yourself as having hit the jackpot!

References

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Johnson, L. (2005). *Teaching outside the box: How to grab your students by their brains* (p. 103). San Francisco: Jossey-Bass

CTE Purpose and Mission

The purpose of the CTE is to enhance cadet intellectual development through high quality faculty development programs.

The mission of the CTE is to:

- ... provide consultation and resources to faculty
- ... conduct educational research & development
- ... serve as a conduit for educational information

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CTE

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Submissions to *CTE Today* are welcome and encouraged. When submitting, please keep these guidelines in mind:

...We are interested in a wide range of teaching and learning topics.

...We are interested in innovative strategies, techniques, and approaches that facilitate learning

...We are interested in reflective analyses of educational issues of concern.

...Write with the understanding that your audience includes faculty in a wide variety of disciplines and in a number of different departments.

...What you describe must be relevant to a significant proportion of USMA faculty.

...Write directly to the audience, remembering that this is a newsletter, not a journal publication.

...Keep the article short; generally between 1 and 3 double-spaced pages.

...If you’d like some initial feedback on a topic you’re considering, you’re welcome to share it electronically with the editor.

We are on the web:

<http://www.dean.usma.edu/centers/cte/>