

**Theresa Mackey**  
**Human Performance Department**  
**CETL Capstone Project**  
**Faculty Teaching Certificate Program 2006-2007**

As a new faculty member at Minnesota State University, Mankato I was introduced to the CETL Faculty Teaching Certificate Program last August by a number of colleagues that I work with in the Human Performance Department. Many of these individuals, including Dr. Kaye Herth, strongly encouraged me to participate in the CETL program because it was a way to assist and enhance my teaching skills. In addition, it was a means for me to meet with other individuals across campus to engage in learning and discussions to improve teaching effectiveness in the classroom. It has been an extremely worthwhile experience as it has helped me improve the way that I teach and it has provided me with motivation to continue to improve my classes and teaching techniques.

As part of the certificate program, all participants were required to complete a capstone project that demonstrated some new teaching strategy, implementation of technology, restructuring of a class, or other useful project to enhance teaching and learning. I found the sessions energizing and valuable because they allowed me the opportunity to engage in discussions regarding teaching and learning with other professionals from all academic areas on campus. It was useful to see how others were incorporating the various strategies discussed during the seminars. As a result, I was able to discover a number of useful teaching strategies and interesting perspectives based upon shared experiences and activities during the scheduled meetings.

One of the main reasons that I wanted to participate in the teaching certificate program was to improve my teaching so that I could better facilitate student learning. After the first few sessions I had a good idea what I wanted to implement as part of my capstone project. Since I wanted to improve my teaching, I thought it was imperative to find out what needed to be improved and one of the best methods for doing this was to have the students provide me with feedback regarding the class and my teaching effectiveness. This meant that I need to incorporate more classroom assessment techniques. Another way that I wanted to improve the class and student learning was to incorporate active learning strategies where the students had many opportunities to engage in active learning activities rather than simply sitting by passively. Active learning was discussed during the seminars as a learning concept where students participate actively in activities that aim to promote their learning and stimulate their interest in the concepts. Therefore, the second method I decided to implement was a focus on active learning strategies.

I teach in the athletic training education program and many of the classes naturally incorporate active, hands-on learning concepts. The class that I was going to focus on for the capstone project was the HP 341 Athletic Training Techniques I that I teach on Tuesdays and Thursdays at 8:00 a.m. This class is a pre-requisite for admittance into the athletic training education program and involves the students learning many foundational athletic training skills. Since it does involve a lab component, it naturally involves teaching and practicing a variety of hands on skills. However, for this project I wanted to focus on active learning strategies in the traditional classroom setting rather than the laboratory setting. Overall, I felt the students had become disinterested in

normal classroom activities so I hoped to encourage more critical thinking and application type strategies to stimulate the students' interest. The following active learning strategies were incorporated into the HP 341 class during the spring semester to promote transfer of learning, comprehension and overall interest in the foundational athletic training concepts. In addition, I hoped the strategies would provide for a more positive learning environment so the students would enjoy the class.

1. **Collaborative/Cooperative Learning**: This technique allows the students to work together to complete a given task or an assigned in-class activity. I have previously made use of this concept in a number of my classes but I wanted to focus on improving it and using it more often. Therefore, I actually incorporated collaborative/cooperative learning activities into the PowerPoint presentations that I utilized during lecture or discussion. A few times throughout each presentation or class session the students were asked to complete an activity with another student. A few examples from the HP 341 class are listed below.

- A. The students were asked to complete the pre-season medical history questionnaire from their textbook and then describe how this information is used by the athletic training staff.
- B. The students were asked to identify and describe essential components of a thorough pre-participation physical exam.
- C. The students were asked to identify the recommended athletic qualification status for each of the following conditions. In addition, they were instructed to identify who will officially determine the athlete's qualification status.
  - An ice hockey player with instability at the C1-C2 level

- A shot put & discus thrower with an enlarged liver
- A baseball player with an enlarged spleen
- A swimmer with a convulsive disorder, but one that is well controlled

D. Using the apparent temperature table, the students were asked to identify the apparent temperature for the following conditions and identify the recommended level of activity for the specific sport. They were also asked to indicate how they would alter practice or a game in each situation.

- 1. Football practice: 100 degrees F; 70 % relative humidity
- 2. Soccer practice: 85 degrees F; 90 % relative humidity
- 3. Baseball game: 75 degrees F; 60 % humidity
- 4. Volleyball practice: 95 degrees F; 50 % relative humidity

E. The students were asked to complete the following SOAP Note Writing Activity based upon previous class discussion.

- Write the medical terminology in a full sentence.

*Dx: Fx L clavicle & subluxation L SC joint*

- Write the sentence in using the correct medical terminology abbreviations.

*The patient may be 50 percent partial weight bearing for the left lower extremity per verbal orders of Dr. Smith*

**2. Think-Pair Share** – This concept provided the students with time to think about a concept for a few minutes on their own, work with a partner to engage in a short discussion, and then share their results with the rest of the class.

A. The following example was used in the HP 341 class during the topic of bloodborne pathogens.

- Describe the risks associated with bloodborne pathogens in athletics.

What are the risks of transmitting a communicable virus? Who makes the policies relative to transmission of bloodborne pathogens? Who should be tested? What do athletic trainers need to practice to prevent the transmission of bloodborne pathogens in athletics?

B. The following activity was used during the topic of splinting and bandaging.

- Describe in detail how you would apply a vacuum splint to an athlete's lower leg for a suspected fracture of the tibia.

C. The following activity was used during the topic of injury assessment.

- One of the softball players on your high school's softball team approaches you while you are observing their afternoon practice. As she approaches you notice that she is limping and favoring her left lower leg. After briefly scanning the practice field for other clues, you begin your injury evaluation. Indicate how you would begin your evaluation. Describe the steps in the injury evaluation process and provide 2 examples of each. What step is performed after the athletic trainer has determined the assessment of the injury?

As mentioned previously, another strategy that I implemented as part of my capstone project involved incorporating more frequent classroom assessment techniques. My main goal was to improve my teaching effectiveness to promote enhanced student learning. I really felt this was an area where I could improve and gain valuable student feedback. The classroom assessment strategies that I employed consisted of asking about the muddiest point from a session, completion of minute papers and completion of

periodic supplement course assessments to gain feedback from the students regarding the class and my teaching effectiveness.

1. **Muddiest Point** – This concept was utilized to help me determine what areas of classroom explanations were unclear to the students. The HP 341 students were asked to anonymously write down the specific concepts that were least clear to them. I would collect and review the muddiest points in between classes and then spend some time in the subsequent class period reviewing the concepts that were identified as the muddiest points. The review also consisted of creating a review worksheet for the students to complete as a way to promote better understanding.

2. **Minute Paper** – This concept was used most often at the end of class or a topic to find out if the students were able to recall and discuss the main ideas from a session. I had the students pull out a blank sheet of paper and asked them to respond to the following two questions (Angelo & Cross, 1993):

- A. *What are the two or three most significant things you have learned during this class session?*
- B. *What questions do you still have regarding the topic area?*

3. **Supplemental Course Assessment** – This strategy was used 3 different times during the course of the semester to evaluate the class. I really wanted to gain feedback regarding the class and my teaching effectiveness prior to the final evaluation at the end of the semester. For that reason, I incorporated a supplemental assessment to provide information earlier in the semester so that adjustments could be made as needed depending upon the feedback from the students. The following questions were utilized in the supplemental assessment:

- A. *Have you learned something new in HP 341? If so, what was it?*
- B. *What have been your favorite class activities? Why?*
- C. *What have been your least favorite class activities? Why?*
- D. *What changes would you recommend to improve this class?*
- E. *Do you have any other suggestions or comments?*

I believe the feedback that I received from this supplemental course assessment was critical in understanding student needs and in promoting my teaching effectiveness. In addition, completing this type of classroom assessment earlier in the semester allowed me ample opportunity to assess the situation and make adjustments as necessary to improve my teaching and thus promote student learning. The assessments were completed anonymously so students were able to provide honest feedback without the fear of offending me. I found this activity extremely valuable as it ultimately allowed for me to provide a better learning environment for all students.

In conclusion, the capstone project was an extremely valuable and practical requirement of the individuals participating in the faculty teaching certificate program. The entire certificate program was designed to assist participants in developing and enhancing their teaching skills to promote effective learning. Overall, this program has been very beneficial for me and has motivated me to continue utilizing active learning strategies, as well as classroom assessment techniques in my classes. These strategies provided ways for my students to be more engaged in learning which they really seemed to enjoy. In addition, the assessment strategies helped me assess problem areas in student learning and improve my teaching effectiveness.