

End-of-Year Report for Instructional Grants 2006-2007
Center for Teaching Effectiveness
General Education Initiative
IT-User Services

The conditions for receiving a CTE / GEI / IT Instructional Grant require an end-of-year report. Please answer the following questions in one-two paragraphs each, complete the budget page regarding funds expended, and return the completed template as a Word attachment no later than Friday, July 31, 2007. Please return the document to Martha Carothers [martha@udel.edu]. Thank you.

Faculty Name(s): Buz Swanik, **Department(s):** Health, Nutrition & Exercise Science
Grant Project Title: Promoting Clinical Reasoning Skills in Athletic Training Students

1. Did you complete your project as planned? What changes and modification to the original project did you have to make, if any?

The project was completed as planned. No significant changes or modifications were made to the original project throughout the year. We were able to test an additional group of students not involved in the Athletic Training Education Program to use as a comparison.

2. What concrete results have you, your students, and your department seen from your project? Please give specific examples of what has worked well and what needs further refinement.

It was theorized the optimal learning for ATEP student may occur when improved access and supervision is afforded for "hands on" experience evaluating and treating injuries under direct supervision of a certified Athletic Trainer. We have observed an average improvement of 7% in the students' post-semester critical thinking scores of the students involved in the intramural sports injury coverage compared to their pre-semester scores. These scores were also higher than two comparison groups, including senior students in a Health Science research methods class and other Athletic Training Education Program (ATEP) students assigned to various sports medicine settings.

	Pre Im	Post Im	AT Students	Research Class
Mean	55.4	58.7	54.7	55.0
SD	10.2	7.9	9.1	8.3

The Watson-Glaser Critical Thinking Appraisal (WGCTA) appears to be a sensitive tool for evaluating critical thinking in this population and will be explored for future use within this program to measure student progress and the value of various clinical settings. This test had received little use previously in our profession, but has been scrutinized more thoroughly in the field of nursing. This environment may offer less

perceived pressure from physicians, coaches, athletes, peers while also providing real world injury-management scenarios. This combination allows the students to think more effectively on their feet and to assess injury situations more efficiently, which is required in the field of athletic training. The opportunity for the students to be the first to evaluate and assess athletic injuries has worked very well, as evidenced by their Clinical Experience Summary Forms. This educational project has allowed the students involved to “think through” a situation on their own, instead of being the second or third person to evaluate the athlete already knowing the injury diagnosis. On a 5 point scale (5=strongly agree) the students rated their clinical experience favorable on:

Injury Assessment and Evaluation (4.4)
Acute Care of Injury and Illness (4.7)
Given appropriate Responsibilities (4.4)
Time Commitment (4.4),
Time provided for in-service discussions on relevant topics (4.9).

3. How have you assessed student-learning resulting from this project? Give specific examples and attach supporting documentation (e.g. products of student work, writing samples, tests).

We used the Watson-Glaser Critical Thinking Appraisal to assess the student’s critical thinking ability. We tested the students’ pre and post semester to observe the change that may have occurred due to the project. Clinical Experience Summary Forms were also completed by each student, which is a required evaluation tool of the ATEP for rating their setting and supervisor. A Certified Athletic Training Instructor also assessed student learning through constructive feedback and concurrent verbalization tasks. We also used individual performance evaluations, completed by the graduate assistant, and shared these with each of the students. The students were also informally critiqued on their writing and medical documentation skills using the injury tracking software (Simtrak™).

4. Would you consider your project a success? Please elaborate.

Yes, we feel that the program allowed the students to perform the initial injury evaluation, in the optimal environment, which improved their critical thinking, knowledge, confidence, and self-esteem. These are some of the most important traits that an athletic training student can obtain before becoming an independent practitioner. This project allowed them to practice thinking quickly, “on their feet” and also attempt to make the most accurate, knowledgeable decisions. Assessing sports injuries requires “book knowledge,” but also hypothesis development and testing ideas through specific psycho-motor based clinical skills. These clinical skills are the foundation for a hierarchy of learning involving patient care and the practice of evidence-based medicine. The ATEP student and graduate assistant greatly appreciated the Simtrak injury tracking software. The straight forward queries, organization and reporting structure of the software architecture was very intuitive. This software was so successful that we are exploring its use for all the ATEP students and medical staff for UD athletics. One aspect that was a secondary

benefit of the project was to provide immediate care for intramural athletes injured during their participation. Below is a sample list (from our mid-year report) of the moderate to severe injuries observed during the intramural sporting events.

1. Bloody noses (concussion tests negative)
2. Supraorbital laceration
3. Thigh and leg muscle strains
4. Dislocated fingers
5. Knee Subluxations (ACL tear/sprain)
6. Shoulder Subluxations
7. Bone contusion
8. Ankle sprains
9. Knee cartilage tears
10. Stretched nerve

5. What would you do differently if you could do the project again?

We would include athletic training coverage into the University of Delaware's club sports program as well as the intramural sports. This would have allowed the students to get a greater exposure to athletic related injuries that appears to promote the clinical decisions making skills under real world conditions. Several club sports are considered high risk for injuries, such as rugby and lacrosse, and thus there would be a mutual benefit to ATEP students and athletes with the inclusion of these sports. Based on student feedback, we will also consider rotating more students through this experience during the course of a semester so that each individual has the opportunity to evaluate injuries but also maintain skills regarding follow-up treatment and rehabilitation. We would also attempt to increase awareness of this injury treatment service to the intramural participants. Despite our attempts, some athletes were unaware that they could receive free injury treatment, evaluations, consultations and referrals.

6. How will the project continue beyond the grant phase?

We are in the process of evaluating the most realistic and successful components of this project and considering their implementation into other settings where the ATEP students are placed. These include use of the WGCTA in the ATEP to track long term critical thinking skills as student progress through various clinical setting, with increasing knowledge, skills and responsibilities. We are also exploring permanent funding sources for providing Athletic Training coverage to both UD intramural and club sports. The injury tracking software was so well received by the ATEP students and instructors that it is now in the process of being implemented into a campus wide secure network which will allow all of the sports medicine and athletic training staff to document and track injuries.

7. Complete the budget page for your project expenses.

Budget List the budget items that you have expended so far in the spaces provided. PLEASE NOTE grant funds must be expended by June 30, 2007. In other words, all purchases should be initiated by June 10 at the absolute latest, in order to assure all encumbered costs clear the grant budget account by June 30, 2007.

ITEM	AMOUNT FUNDED	DEPT/UNIV committed funds	ALLOCATION of funds to date
TOTAL of Budget Items	\$20,070.00		\$18,088.07
Faculty summer S-contract(s) and fringe			
Graduate stipend and fringe	\$13,000.00 \$390.00		\$13,000.00 \$390.00
Graduate student non-contract, undergraduate S-contract, or miscellaneous wage (no fringe)			
Consultant(s) S-contract and fringe			
Equipment	\$1600.00		\$2,778.07
Software	\$4,500.00		\$1,500
Books & materials	\$450.00		420.00
Travel			
Other (list)			

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