

Are Content and Competencies Enough?

Strategies to Encourage Reflective Practice Among Athletic-Training Students

JENNY PARKER

WILLIAM PITNEY

Due in part to the work of Schon (1983, 1987) and Mezirow (1991), many disciplines have recognized that reflection is an essential aspect of professional development and a necessary process for effective continued learning. Moreover, because reflection facilitates expertise as well as a better understanding of the tacit knowledge involved with professional practice (Scanlan & Chernomas, 1997), many programs have searched for ways to encourage reflective practice among students. This article will explain how, through a collaborative effort, educators can change the supervision practices in a semester-long, athletic-training clinical experience in order to facilitate the development of reflective practice among students. After describing the previous state of supervision and discussing each strategy incorporated into the course, we will conclude with a brief discussion of our own reflections and offer suggestions for future changes.

Athletic-Training Clinical Supervision

In order to ensure that the technical and competency-based aspects of undergraduate education are taught, the Joint Review Committee–Athletic Training (JRC-AT) and the National

Athletic Trainers' Association Education Council (2001) established guidelines for the arrangement and application of clinical education. These guidelines state that clinical education must involve the acquisition and practice of clinical skills with an adequate level of supervision. Clinical education supervision should be conducted through "constant visual and auditory interaction between the student and the approved clinical instructor" (p. 2) and should result in multiple opportunities for effective feedback. With this standard in mind, the authors of this article set out to evaluate the current state of supervision by observing an upper-level clinical experience course in athletic training.

An initial observation of the course's structure revealed that the students were engaged in peer assessments, faculty skill assessments, clinical educator assessments, and an end-of-the-semester performance evaluation. This supervisory model provided program personnel much information with which to judge the students' performance in the clinical experience. However, despite the fact that the model provided extremely valuable information, it also exhibited some of the supervisory issues and problems discussed by Weidner and August (1997). Specifically, limitations such as the

following were observed:

- The primary purpose of supervision at many sites was to shield an athlete from harm; educating the athletic-training students took a secondary role.
- The focus was summative evaluation rather than the formative evaluation and encouragement of professional growth needed for effective supervision (Henry, 1995).

Additional limitations became apparent when we compared the existing model to the literature, which defines supervision as a complex developmental process that helps the student become a reflective, self-evaluative, autonomous professional (Calabrese & Zepeda, 1997; Glickman, Gordon, & Ross-Gordon, 1995; Randall, 1992). In short, the supervisory model we observed emphasized supervision for safety and student assessment rather than supervision for the effective education of athletic-training students.

To address these supervision issues, we proposed and implemented three changes to the supervisory practices in the clinical education course: (1) the use of video technology and stimulated recall, (2) the use of reflective journals, and (3) expanded self-evaluation procedures. While the implementation of these strategies was exploratory in nature, they were drawn from educa-

Table 1. Example of Two-Column Journal Layout

<i>Situation</i>	<i>Action</i>
Describe a situation in which you were either ill-prepared or significantly challenged.	Explain how you dealt with the situation and, after careful reflection, how you would have handled it differently.
Describe a situation in which you felt completely prepared and confident that you handled it appropriately.	Explain what enabled you to be so well prepared.

tionally sound pedagogical practices. As educators, our intent was to gain insight and understanding about whether these strategies were practical and whether they encouraged our students to be more reflective.

Stimulated Recall Through Video Analysis

Video cameras set up in athletic-training rooms can serve as an additional pair of supervisory eyes for the program faculty. Such technology also provides a means of additional reflection and self-evaluation for the athletic-training student. With permission from the head athletic trainer and college athletes, two cameras were set up in separate training rooms. Each camera was equipped with a wireless microphone to record conversations between the athlete and the athletic-training student. The students received videotapes on which to record their interactions with athletes, and they were required to meet with a program faculty member on a monthly basis. Using a stimulated recall technique (Tjeerdsma, 1997), the students were asked to reflect on certain episodes from the tape.

Stimulated recall is a technique for gathering information on thought processes (Tjeerdsma, 1997). In this case it allowed the students to "think aloud" and process the decisions they made during their interactions with athletes. The role of the program faculty member during the stimulated recall sessions resembled that of coach and facilitator. While the student talked through the episode, the faculty member listened in a nonjudgmental manner, asked

questions to prompt deeper levels of analysis, and offered suggestions (when asked).

For example, the student's performance during the rehabilitation session was recorded and subsequently reviewed by the instructor of record. Critical events were documented and reviewed with the student. In many instances, the student and instructor reviewed a particular procedure and/or technique during the rehabilitation session, and the instructor questioned the student about why the procedure was selected, how it affected the rehabilitation process, and why it was implemented at that time. In addition, students were asked to watch themselves perform a procedure and/or technique and to evaluate their own performance. This process required students to think through the purposes and implications of their procedures and to examine the extent to which they performed the procedures correctly, thus facilitating the self-evaluation process.

Reflective Journals

Athletic-training students were also required to keep reflective journals that were submitted to program faculty on a monthly basis. Maintaining a reflective journal has been suggested as a means of enabling reflection (McAlpine, 1992). Reflective journal writing is thought to connect learners with themselves, faculty, and the practice setting, and to encourage self-reflection and critical thinking (Riley-Doucet & Wilson, 1997).

The required journal entries were divided into two columns, one in which to describe a positive situation and a

situation in which the student felt uncomfortable, and the other, in which to explain how the student handled each situation and what he or she would do differently given another opportunity (table 1).

After journals were submitted, program faculty read the entries and selected specific situations to discuss at individual monthly meetings. An example of a journal entry appears in table 2.

Self-Evaluation Procedures

In addition to the self-evaluation opportunities provided by video analysis, the athletic-training students were asked to complete a progress form at the middle and end of the semester. The same form was used by the clinical educators during the mid-term and final evaluation. After both groups had completed the forms independently, the results were discussed during mid-term and end-of-semester meetings with program faculty.

The self-evaluation forms required students to complete Likert scale items for the following components: quality of clinical work, judgment and decision-making, relationship with others, initiative, communication, and professionalism. Moreover, students were asked to identify their primary strengths and weaknesses associated with these six components and to develop specific goals and learning plans to address their weaknesses. At the end of the term, the students met with the instructor of record, and each of their self-evaluation forms was reviewed to identify the extent to which students were able to achieve their goals in a self-directed manner.

Table 2. Sample Journal Entry

<i>Situation</i>	<i>Action</i>
<p>After a soccer game, a player's dad came up to me and asked whether his son's shoulder might be fractured. I didn't know which player was his son but I knew it was not an athlete that I had worked with that week. I found his son and assessed his shoulder but he was not real cooperative.</p>	<p>I told him that I thought it was a strain, instructed him on how to care for it, and let him know that it should be examined by the head ATC and that we should begin treatment tomorrow. The next day the athlete reported with an emergency room notice and an official diagnosis of a "shoulder contusion." I felt upset because the athlete and the father did not have confidence in me.</p> <p>In order to improve the confidence of the parents, I think I have to develop a rapport not only with the athlete, but also with the parents as well. Taking the time to meet the parents during pre-game events and even after the games would be a good way to identify the players' parents and get to know them a little bit. I believe that if I know who they are and can develop a rapport, they will have more confidence in me when it comes to evaluating their son or daughter.</p>

Reflections

The insights gained over the course of the semester were encouraging, and the athletic-training students responded positively to the new strategies. However, until formal research is conducted on the effectiveness of the strategies we implemented, our conclusions should be interpreted cautiously.

As we reflected on our attempts to encourage reflective practice among the athletic-training students, we identified the positive and negative features (table 3) and asked ourselves, "What's next?" To answer that question, and to address some of the problems encountered while further encouraging reflective practice in athletic-training students, we offer the following suggestions. First, restructure the video analysis and journal entries. Second, develop additional observation instruments. Finally, initiate staff development for clinical educators.

Restructure Video Analysis and Journal Entries

The video analysis may be more effective and efficient if the students are involved at a deeper level. For example, the student will preview the video, cue up the tape, and arrive at the meeting with program faculty ready to discuss specific incidents. This places more responsibility on the students and en-

ures that the incidents viewed are meaningful to them. Another possibility is to pair each student with a senior peer mentor who could meet and review the videotape. Such an arrangement allows the student to receive more feedback and also provides senior students with greater opportunities to practice their skills.

One of the major disadvantages of the current journaling structure was the lack of immediate feedback and long turnaround time. Journals were typically returned to students during site visits or at the end of the semester. We offer two suggestions to rectify this situation. First, encourage students to submit journals electronically. While the time taken to read the journals does not change, such technology creates a faster response time that is of immediate value. If the program faculty member makes it known when he or she checks email, the students will be informed as to when they may receive a response.

Second, creating an electronic discussion list such as Webboard will offer an additional forum in which critical issues can be discussed, thus providing greater opportunity for students to take responsibility for their own learning. The program faculty can monitor the discussion list, but the students should initiate the issues and

discussions. Participating in online conversations of this nature can provide a peer support system for athletic-training students and assure them that they are not alone in the situations they are experiencing.

Develop Additional Instruments

Currently, the progress form completed at the mid-term and end of the clinical experience is evaluative in nature, requiring the clinical educator and the athletic-training student to make judgments about competence. Although there is room for comments and documentation, the judgments made can be context-free and subjective. In order to collect objective data on the performance of the students, we suggest following the example set by physical educators (Metzler, 1990; Randall, 1992) in the supervision of student teachers, by developing observation instruments to be completed throughout the clinical experience.

Although there are distinct differences between the supervision of student teachers and athletic-training students, there are also some similarities that might allow for the adaptation of existing observation instruments that are valid and reliable (Randall, 1992). For example, both student teachers and athletic-training students provide

Table 3. Positive and Negative Features of the Strategies

<i>Strategy</i>	<i>Positive Features</i>	<i>Negative Features</i>
Stimulated Recall Through Video Technology	<ul style="list-style-type: none"> • Faculty could observe students on film at any time • There was always interaction, whereas sometimes during “live” visits there were no athletes who needed attention • Stimulated recall encouraged higher-order thinking skills and enhanced self-reflection among athletic-training students 	<ul style="list-style-type: none"> • Extremely time consuming • Only available at certain sites
Reflective Journals	<ul style="list-style-type: none"> • Athletic-training students were very candid • Journal writing encouraged self-reflection • Journal writing gave program faculty insight into the most beneficial components of the preparation program 	<ul style="list-style-type: none"> • Also time consuming • Giving immediate feedback on journal entries is difficult
Self-evaluation	<ul style="list-style-type: none"> • Athletic-training students identified the same weaknesses in their own performance as the clinical educators 	<ul style="list-style-type: none"> • Athletic-training students tended to give themselves a higher evaluation than did the clinical educators

feedback during their interactions with others. Keeping a tally of the type of feedback given enables individuals to reflect on their effectiveness in this area. In physical education, categories of feedback are specific, general, evaluative, and corrective (Randall, 1992). In athletic training, these categories could be adapted to include positive, negative, direct, and indirect.

Another area common to student teachers and athletic-training students is time management. In student teaching, the categories of time management are: wait, instruction, activity, and management (Rink, 1998). In athletic training it is important to know how much time is spent in the following areas: injury prevention, rehabilitation, administration, injury assessment and emergency care, and waiting.

The development of observation instruments will provide additional, immediate feedback to the athletic-training student and facilitate further self-reflection. The observation instruments may be completed by the clinical educator, a peer athletic-training student, or, if used in combination

with the video technology, by the athletic-training students themselves. Adapted or newly created observation instruments, of course, must be validated before being used.

Staff Development for Clinical Educators

Attempting to change the focus of supervision strategies toward facilitating reflective practice requires attention to clinical educators' perceptions of their role. In many instances, athletic-training clinical educators offer feedback to the athletic-training student and direct the student's action regarding health care delivery, often using the students as an extension of themselves. As we attempt to supervise students toward becoming self-evaluative, autonomous professionals who reflect on their actions, the role of the clinical educator will become ever more important. Consequently, offering staff development opportunities to clinical educators will become increasingly important. Clinical educators must learn the value of reflective practice and how these processes can be influ-

enced. Furthermore, helping clinical educators understand the structure and function of feedback, as well as how to foster self-directed learning, is essential to the supervision paradigm we propose.

The JRC-AT currently requires accredited programs to have an Approved Clinical Instructor Educator who is qualified to train clinical educators to become Approved Clinical Instructors. The ultimate goal of the program is to enhance the quality of clinical education experiences for athletic-training students.

Summary

In preparing students for their professional roles, it is crucial to look beyond content, competence, and clinical proficiency. Perhaps it is also necessary to look beyond the disciplinary boundaries in higher education. In this case, interdisciplinary collaboration allowed for the sharing of information, which facilitated comprehensive, well-grounded, theoretically based changes in supervisory strategies. Our students, as future profes-

sionals, will be required to monitor their own learning and set their own goals based on their learning needs. Changing the definition of supervision and the supervisory process during clinical experiences is the first step in helping students become self-directed learners. Supervision can no longer be defined solely as a process of protecting the athlete from injury. Rather, supervision must be acknowledged as a process that encourages students to become self-evaluative, autonomous, and reflective practitioners. With this definition in mind, supervision offers multiple opportunities to facilitate learning and foster professional development in students.

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Jenny Parker (jparker@niu.edu) is an associate professor, and William Pitney (wpitney@niu.edu) is an assistant professor, in the Department of Kinesiology and Physical Education at Northern Illinois University, DeKalb, IL 60115.

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