

# Continuing Education in Athletic Training: An Alternative Approach Based on Adult Learning Theory

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**Objective:** To offer an alternative perspective on current continuing education practices and to propose a model for facilitating continuing education in the athletic training workplace.

**Background:** Professional knowledge can quickly become outdated, and the personal/professional contexts of allied medical fields such as athletic training are becoming increasingly more complex, making continuing education paramount. Adult learning theory suggests that individuals are self-directed, autonomous learners in nature and that experience is a rich source for learning, subsequently making the workplace a fruitful environment in which to engage in continuing education. Unfortunately, mandating continuing education may violate the voluntary nature of adult learning, making the practice questionable. Therefore, alternative aspects of continuing education may be helpful.

**Description:** This article consists of a brief synthesis of related literature that offers an alternative perspective of continuing education and proposes a model for facilitating continuing education in the workplace. The model's foundation includes preparing an environment conducive to learning and then focuses on identifying learning needs, setting goals, implementing specific strategies to facilitate self-directed learning, and assessing learning. Additionally, the model suggests that ongoing reflection is a key factor in enhancing the identification of learning needs, goals, and strategies.

**Advantages:** The model may best be used by clinical coordinators, directors, and supervisors to better facilitate employee learning and subsequently improve patient care delivery.

**Key Words:** adult learning principles, self-directed learning

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The need for professionals to continue education throughout their careers is fueled by public accountability, advancing technology, and an ever-increasing amount of information.<sup>1</sup> Given today's technological complexity and constant change, continuing education is necessary for effective, efficient, and safe practice by allied medical professionals.<sup>2</sup> Carpenito<sup>2</sup> estimates that the half-life of professional knowledge gained through formal education may be as little as 2-1/2 years. The simple conclusion is that professional knowledge can quickly become outdated and that continued learning is necessary. The purpose of this article is to examine the current state of continuing education in athletic training and to build a case for alternative approaches for facilitating continued learning. In so doing, adult learning principles will be examined and a model for facilitating self-directed learning will be offered.

## THE CURRENT STATE OF CONTINUING EDUCATION

Professional continuing education is a vital component to ensuring clinical competence and preventing professional obsolescence.<sup>3,4</sup> Coupled with public demand for accountability, these factors may well be the premier argument for mandating professional continuing education. Within the allied medical

field, however, mandatory continuing education has not been proved to ensure competence.<sup>5</sup> Continuing education is obtained primarily by workshop or seminar attendance, and attendance is thought to equate to competence.<sup>6</sup> Although continuing education is measured, its value is often based on attendance or satisfaction. Unfortunately, evaluating attendance and satisfaction may not measure a person's learning achievement.

At the very least, mandatory continuing education forces individuals who may not otherwise engage in learning activities to attend a learning program. However, mandatory continuing education has been reported to violate the voluntary nature of adult education,<sup>2</sup> as well as adult learning principles.<sup>7</sup> Alluding to the nursing profession, Carpenito<sup>2</sup> stated that most professionals are autonomous learners, and mandatory continuing education may not change those individuals who lack the autonomous self-directed learning attitudes.<sup>7</sup> Moreover, if clinicians are not self-directed regarding continuing education or are uninterested in conventional continuing education (seminars, symposiums, or workshops), then attending programs merely becomes a time-serving event. Therefore, perhaps we should focus some of our efforts on considering alternative approaches to continuing education and helping the small percentage of athletic training professionals who are not currently self-directed to become more self-directed with

regard to their education. Athletic training supervisors, directors, and mentors may need to act in the capacity of learning facilitators to assist in maintaining quality professional continuing education among individuals who lack self-directedness. Facilitating self-directed learning, however, requires an understanding of both adult learning characteristics and specific techniques to promote self-directed learning.

### ADULT LEARNING PRINCIPLES

Adult learning is a somewhat “slippery” term and is not necessarily confined to adults. Rather it refers to adulthood, since maturity defines its limits.<sup>8</sup> The classic set of adult learning principles was proposed by Knowles:<sup>9</sup> 1) learners become more self-directed as they mature; 2) an adult’s experience acts as a rich educational resource; 3) adults like their learning to be problem centered and meaningful to their life situation (social/professional role); and 4) adults learn best when they can immediately apply what they have learned.

In addition to those principles posited by Knowles,<sup>9</sup> Brookfield<sup>10</sup> suggested that adults learn throughout their lives when negotiating transitional stages, when they have diverse learning styles, and when effective adult learning is linked to their self-concept. In the context of athletic training, these principles have significant bearing on facilitating continuing education.

### FACILITATING SELF-DIRECTED EDUCATION

Because certified athletic trainers may tend to be more problem centered and wish to apply what they learn to the immediate professional context (ie, patient care), and because experience acts as a rich educational resource, the workplace can be a fruitful environment in which to encourage self-directed continuing education. Moreover, many practicing professionals believe that the knowledge they gain from the workplace is far more useful than the more conventional forms of education.<sup>11</sup> Therefore, program leaders, directors, and supervisors of athletic trainers can be effective facilitators of self-directed learning.

Regardless of how we choose to define self-directed learning, one of its principal aims is to help learners develop skills and competencies required to continue their self-education.<sup>12</sup> Within an allied medical context, Kathrein<sup>13</sup> offered several tenets that may be utilized by continuing education facilitators as a framework for continuing education. One tenet is that learning occurs in a socio-professional context. For example, some of the athletic trainer’s most useful learning takes place while he or she is practicing athletic training, thus supporting the notion that the workplace is suitable for continuing education. Another tenet states that continued learning is directed toward the achievement of goals. Unfortunately, many learners do not state their goals or formally evaluate them for attainment. Consistent with adult learning theory, Kathrein<sup>13</sup> stated that the pattern of learning is designed by the learner and expresses the learner’s individuality and creativity in learning,

and the learner determines the goals, directions, and processes of learning.

Brookfield<sup>10</sup> suggested that a facilitator of adult continuing education should attempt to offer learners alternative perspectives and challenge their goals, directions, and processes of learning. While these aforementioned skills lend some clarity about how to enhance self-directed learning, specific strategies are neglected. Carpenito<sup>2</sup> offered supervisors, facilitators, and managers of continuing education in the allied medical field some practical suggestions: for example, creating an environment where new ideas are expected, establishing goals to be accomplished by each allied medical staff in a 1-year period, holding a discussion once a month that highlights a new allied medical concept, encouraging different styles of professional practice among personnel, and promoting role models.

### AN ATHLETIC TRAINING CONTINUING EDUCATION MODEL

To summarize these strategies, skills, and principles, I propose a continuing education model that can be effectively utilized by program leaders, directors, supervisors, and clinical educators to facilitate self-directed learning that is meaningful to personnel and may subsequently help to enhance patient care (Fig 1). The intent of this continuing education model is to present essential elements of educational planning found in the

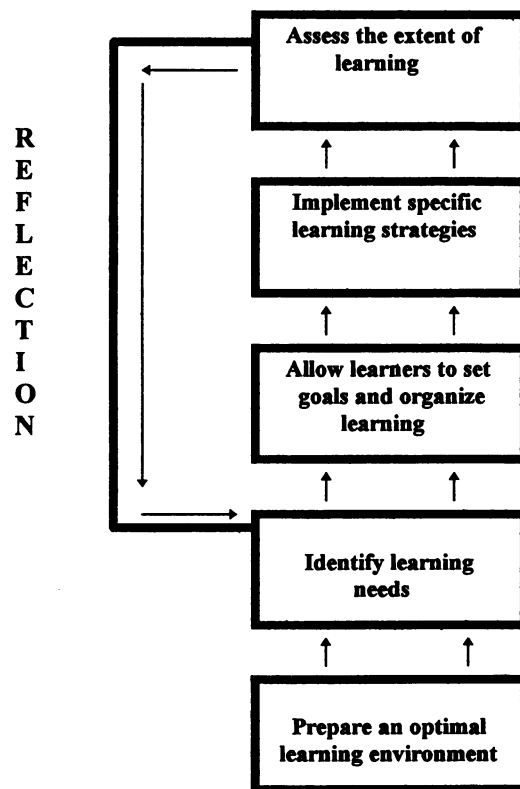


Fig 1. An athletic training model for continuing education in the workplace.

adult education and human resource development literature<sup>9,10,14-18</sup> and to highlight those aspects that may be most valuable to athletic trainers. The model consists of six steps, beginning with creating a learning environment and progressing to identifying learning needs, allowing learners to organize learning, implementing specific strategies to facilitate learning, and assessing what they have learned. I also suggest that facilitators encourage ongoing reflection that will impact future planning, goal setting, and strategy implementation.

### **Prepare an Optimal Learning Environment**

At the foundation of the athletic training continuing education model is the creation of a learning environment. The continuing education facilitator must establish a climate of respect that values the learner and his or her level of experience.<sup>9</sup> A facilitator of continuing education should foster an environment that provides support and feedback to encourage professional development.<sup>10</sup> Moreover, a facilitator should offer a learner encouragement and exercise much patience because it often takes time to understand the commitment that learning implies and to see how learning relates to both personal and clinical professional needs. An environment that values a comprehensive view of learning as a continuous and lifelong process<sup>13</sup> is preeminent.

A perfect example of the need for an optimal learning environment can be found in the postseminar transition. Athletic trainers or other allied medical professionals who voluntarily attend a workshop and learn new skills and information are often excited to put them to use. Unfortunately, even if learning does occur at a workshop or seminar, new skills and knowledge may be difficult to transfer into practice once an individual is removed from the supportive environment of the workshop.<sup>16</sup> A clinician's intention to perform such skills may then begin to fade due to lack of support. However, an environment of encouragement and respect may better help the clinician through the transition into implementing the desired skills.

### **Identify Learning Needs**

The continuing education facilitator should work with the athletic trainer to identify learning needs. Knowles<sup>9</sup> stated that between a required level of professional competency and one's present level of competency lies an educational need. Continuing education facilitators should help learners reflect on established competencies and skills and how they relate to their current skills, as well as the challenges faced in their professional contexts. For example, pairing a novice clinician with a master clinician as a mentor may allow the novice to see skills, techniques, and knowledge put to use in ways that can improve the novice's future patient care delivery. The goals and objectives that emerge from the identified needs are individual to each learner.

### **Allow Learner To Set Goals and Organize Learning**

Because adult learners tend to become more self-directed as they mature, they should create their own learning goals and objectives. However, the continuing education facilitator should help the learner to see alternative perspectives and should challenge the learner to set goals and objectives that will help meet the learning needs.<sup>10</sup> While it is desirable that the learner be completely self-directed, the less mature learner may attempt to get by with little effort. An astute facilitator will not allow the learner to simply submit goals haphazardly. Rather, the facilitator will examine the goals based on the established learning needs. Using a learning plan to clarify and implement specific learning strategies is helpful when organizing the learning.

### **Implement Specific Learning Strategies**

Because the learning strategies will be unique and individualized, the strategies selected should be based on the individual's learning style.<sup>13</sup> The learner should determine (with the assistance of a facilitator) where to learn, when to learn, the sequence of the learning activity, and the mode of learning.<sup>13</sup> To help learners develop self-directed learning skills, it is often helpful to have them create learning plans. Learning plans have the following characteristics: 1) they are goal directed; 2) they are focused on short-term actions that promote continual learning; and 3) they are modified based on the latest up-to-date information.<sup>17</sup> A sample learning plan is offered in Figure 2.

An additional strategy that may promote continued learning in the workplace includes the use of patient care conferences in which team learning can take place and assumptions can be challenged.<sup>13</sup> In a patient care conference, interesting cases are presented and standards of care can be challenged, facilitating deep reflection. When individuals convene to reflect on past performance, learning is maximized when the discussion is balanced with inquiry into others' perspectives.<sup>18</sup>

### **Assess the Extent of Learning**

It is difficult to determine whether goals have been met unless an assessment is made. Much attention has been given to outcome-based assessment at the undergraduate level. In fact, the 1997 NATA Research and Education Foundation's Professional Educators Workshop in Dallas, Texas, highlighted outcome-based assessment. However, little has been written regarding the assessment of continuing education in athletic training, and, consequently, attendance has been the main form of documentation. The assessment of learning outcomes can take many forms, including interviews with the learner, the development of a portfolio, and testing an individual's knowledge base. A potentially more effective avenue for assessment of learning in the workplace may be the performance evaluation. The method of evaluation should be selected and stated in

Learning Goals	Learning Action	Evidence	Resources	Completion Date
Identify what knowledge or skills would be helpful to meet clinical challenges.	What specific action will be initiated in order to acquire specific knowledge or skills identified as learning goals?	What evidence will be demonstrated to prove that goals have been met and learning has taken place?	What resources are necessary to implement the learning action and achieve learning goals (ie, finances, mentors)?	Target date for achieving stated learning goals.
Example: Because so many musculoskeletal injuries are the result of cumulative stress, myofascial techniques may improve patient care delivery.	Example: Attend myofascial release workshop and then shadow a master clinician for further instruction.	Example: The learner (employee) will teach a 2-hour hands-on inservice to other certified athletic trainers.	Example: Time off for workshop, money, staff mentor/master clinician to reinforce learning environment upon the learner's return from the workshop.	Example: Workshop attendance from October 12-16. Inservice to be taught December 5.

Fig 2. A sample learning plan. (Permission to adapt this figure from an out-of-print title<sup>20</sup> was granted entirely by Globe Fearon.)

the learning plan when the learner organizes the learning strategies.

### Reflect

Once learning has been completed, the learner must reflect on the experience. Reflection involves not only thinking about the clinical actions that we have taken as professionals, but also exploring problems that occurred in the learning process itself. This reflection is likely to lead to understanding and identifying new learning needs and developing strategies for continual learning. According to Mezirow,<sup>19</sup> reflective learning involves not only confirming but also transforming ways of interpreting experience. Reflection may represent the most critical phase of the learning process,<sup>18</sup> and in fact, experience without reflection may not result in learning. The reflective practitioner is able to expand the speed, depth, and breadth of the learning and continually identify learning needs, goals, objectives, and strategies to meet the ever-changing health care environment. Therefore, reflection is offered as a vital step in this particular model.

### CONCLUSIONS

Mandatory continuing education in the allied medical profession will, most certainly, continue. Although its efficacy is questionable, its purpose has merit. Given today's rapidly changing technology and society's quest for accountability, continuing education will take a progressively larger role in enabling clinicians to maintain clinical competence. Perhaps, then, we should consider alternative avenues of continuing education, specifically enhancing the

self-directedness of allied medical professionals to learn. The workplace may be a fruitful location in which designated learning facilitators can help to instill a commitment to self-directed learning. Although the athletic training continuing education model proposed here offers a framework with practical strategies for enhancing self-directed learning, it is not intended to imply that all professionals lack self-directedness or the ability to continually learn. Rather, it is presented to offer an alternative strategy for maintaining competence for both self-directed and less self-directed learners in light of questionable principles underlying mandatory continuing education.

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