STUDENTS appear to learn at a deeper level when they teach their peers,1, 2 and they have a higher level of self-awareness of their own skill levels when they evaluate their peers.3 Peer assessment has been suggested by athletic training educators as an effective tool for enhancing students’ comprehension and performance of clinical psychomotor skills.2, 4 Peer assessment is defined as students evaluating the products or outcomes of learning.1 In athletic training, this type of formative assessment could be a critical link in the learning over time (LOT) process. The purpose of this report is to explore the manner in which peer assessment can be implemented as a component of the LOT process between initial formal instruction and the formal evaluation of skill acquisition by an instructor. Peer assessment is not intended to replace an instructor’s assessment but rather to provide formative feedback in a timely manner prior to the formal evaluation while providing time for student practice and internalization of information.4

### Learning Over Time

The Glossary of Terms provided by the Commission on Accreditation of Athletic Training Education (CAATE) clearly defines learning over time (LOT) as “the process by which professional knowledge and skills are learned and evaluated.”5 The key term in the first part of this definition is “process.” A process involves a series of actions that lead to an end result. LOT is furthered defined as including the following actions: formal instruction and evaluation, followed by a time of sufficient length to allow for practice and internalization, and subsequent reevaluation in a real or simulated patient setting.6 Peer assessment can easily be implemented as a component of the LOT process between initial formal instruction and the formal evaluation of skill acquisition by an instructor. Peer assessment is not intended to replace an instructor’s assessment but rather to provide formative feedback in a timely manner prior to the formal evaluation while providing time for student practice and internalization of information.4

### Structuring Peer Assessment

There are many factors to consider in structuring and implementing peer assessment in an athletic training education program (ATEP). Topping3 offers a practical guide that identifies five major factors appropriate for consideration when planning peer assessment in an ATEP (Table 1). To aid in understanding, these factors will be discussed relative to their application in an entry-level Master’s ATEP.
Objectives

Peer assessment can be implemented to achieve a number of objectives, such as mutual cognitive, meta-cognitive, motivational, attitudinal, and/or social and behavioral gains in students on the giving and receiving end of the peer exchange. Cognitive gains may include improved test scores for students being evaluated, while students performing the evaluation may achieve a deeper understanding of the skill as a result of the analysis required to determine whether or not it was performed correctly. Students conducting the peer evaluation may achieve greater meta-cognition by gaining insight into how they process information. Peers being evaluated may become better able to regulate their own learning processes and to use this self-awareness to enhance understanding in areas needing improvement.

Another objective of peer assessment may be an increase in student motivation and ownership of the learning process. For example, students may be more motivated to practice their skills if they know they will be held accountable by their peers to perform them correctly. Students conducting the evaluation may be internally motivated to stay current in their skills so that they can provide accurate feedback to their peers. An obvious benefit is that students will have to continually review material, which may lead to better preparation for the Board of Certification exam.

Peer assessment may be implemented with the objective of changing students’ attitudes toward the learning process. For example, peer assessment results in a more collaborative relationship between student peers, which may lead to a greater sense of ownership of the program. In addition, students may gain a more positive attitude toward themselves in terms of self-esteem and self-respect.

Social and behavioral objectives might also be achieved through implementation of peer assessment. Students engaged in peer assessment often view their peers as colleagues, which could have transferable sociological benefits to development of collaborative relationships in clinical practice. Peer assessment could also create cohesiveness between and within student cohorts.

We implemented peer assessment in each laboratory course in our entry-level master’s ATEP with several objectives in mind. First, peer assessment is congruent with the team-based philosophy of our program, which encourages shared responsibility in the learning process among students, clinical instructors, and faculty. Therefore, one objective was to create a collaborative learning environment among student peers in the laboratory setting, with the hope of transferring collaborative skills into the clinical setting. Our second objective was to provide a mechanism for students to receive specific formative feedback on their clinical skills prior to being formally evaluated for a grade. Our third objective was to facilitate “retention over time” in our second-year students in conjunction with learning over time. Retention over time relates to the student’s ability to recall and critically analyze information from past semesters. Certainly, retention of information is critical to providing accurate feedback to student peers. Finally, we wanted to expose students to the process of evaluation in order to enhance their ability to give and receive constructive feedback, a skill that will be important in future employment. We have observed that our students perceive their peers as valuable sources of information and are very comfortable providing one another with feedback. Our students have also reported that they do not want to waste their peer’s time by performing poorly during an assessment session, and therefore, they prepare more thoroughly. Our second-year students have also reported that working with a first-year student provides a good review of previously learned material.

Curriculum Area

Peer assessment may not be appropriate for all domains of an athletic training curriculum. Careful consideration of domains or courses that are most conducive to implementation of peer assessment. For example, students may be more confident in providing...