As athletic training education continues to develop various methods of instruction for athletic training students, technology needs to be further integrated into the curriculum. The National Athletic Trainers’ Association promotes the development of various athletic training software programs through scholarships and awards, and a recent issue of the Journal of Athletic Training (37[4], 2002) contained a section focusing on technology in athletic training education. Although some resources are available to assist in technology development, very little attention or resources have been devoted to athletic training faculty development with technology. A complete understanding by individual institutions of issues in faculty development will enable faculty members to successfully integrate technology into athletic training education. This article addresses current issues in athletic training education that are preventing the integration of technology into the curriculum, as well as suggestions for improvement.

### Key Points

- Few resources have emphasized athletic training faculty development with technology.
- Faculty have the potential to create technology-assisted instruction but must receive training and support to generate these projects.
- Positive and nurturing interactions between faculty and technology personnel are essential to improve faculty use of technology-assisted instruction.
- Faculty-development efforts should address the pedagogical issues related to the use of technology, not just the technology.
- Higher education administrators should support and facilitate the use of technology in the classroom.
- Key Words: faculty development, technology-assisted instruction

### Technology in Athletic Training Education

Minimal research in the area of technology in athletic training education is currently available; however, several investigations by Wiksten et al. evaluate the performance of athletic training students with technology-assisted instruction (TAI).¹,² These studies have identified major variables of technology integration into the athletic training curriculum from the student perspective. From CD-ROM use to interactive software programs, Wiksten investigates the use of technology by athletic training students through several studies. These studies have yielded favorable qualitative results by including TAI with traditional lecture but no significant quantitative data proving one method better than the other.¹,² Most important, these studies overlook the impact of effective faculty development before implementing TAI.¹,² This might be one explanation for the lack of significant findings in other investigations with traditional lecture versus TAI in athletic training education. Although current research has provided insight into the difficulties that athletic training students face with technology, further inquiries should also address difficulties of faculty faced with technology.
or preparing their students to use technology. Student participants in one study responded negatively to the inclusion of technology, primarily because of the lack of interaction with the instructor and the additional training required to learn to use these new tools. In addition, students from a semester-long study did not use the computer because the professor was able to cover the topic adequately in class. These issues can be directly related to an instructor’s ability (or inability) to effectively integrate TAI into the curriculum. Faculty development is often overlooked with technology. Research in the area of faculty development might reveal ways to improve the effectiveness of TAI in the curriculum.

Investigations by Wiksten et al. also allude to the difficulties instructors have in adapting to new technologies to create effective instruction. Professional development programs for athletic training faculty that address their specific needs and interests might be the best solution to successfully integrating TAI. Because most faculty members have full-time teaching and research loads, effective use of their time becomes an issue. Faculty have the potential to develop and create technology-based software and presentations to assist in instruction, but they need support to carry out these projects (Figure 1). Content experts from diverse areas in athletic training education can also share their knowledge with a larger audience through chat and Web-based or video presentations. Instead of restricting the presentation of new research to conference presentations and publications, these experts can more widely disseminate their findings on classroom instruction. TAI will enable athletic training educators to effectively address the needs of multiple student learning styles and improve their instruction. Because athletic training students have different learning styles, they need a variety of teaching styles. TAI will enable students to actively engage in the learning process by receiving information from a variety of sources. For instance, with TAI a student can access a course Web site for further inquiry and post messages on discussion boards. Through both TAI and traditional instruction, athletic training faculty can accommodate student learning styles with better success. TAI will also enable students to interact directly with content experts from other institutions and receive direct feedback via e-mail, online chat, or video.

Trends From Other Professions

Today’s athletic training educators face unique challenges of adopting TAI that have already been met and overcome by nursing and the medical field. Both nursing and medical schools have integrated TAI and the use of handheld computers to store patient documents, physicians’ drug references, and other medical programs. These highly adapted professions have proven the effectiveness and usefulness of technology, which developed from TAI. Why has athletic training education not effectively integrated the use of handheld computers? A primary issue we believe faces many athletic training education programs is the inability to secure funds for the purchase of handheld computers for their faculty and staff, let alone for their students. This obstacle might be overcome through grants and other funding or requiring students to purchase their own handheld computers on entry into the program. Nursing and medicine have developed useful handheld software that athletic training students could also benefit from. More important, limited funding has hindered the development of handheld-computer software programs to enhance student learning. Finding ways to secure funding for new equipment and research might motivate faculty to create effective software for athletic training students.

One study investigating technology use in general disciplines showed that an increase in technology