DOCUMENTATION of clinical skills and competencies has been identified as a challenge to the accountability paradigm facing athletic trainers and other health educators, both from the standpoint of student evaluation and program accreditation.\textsuperscript{1,2} The sequential clinical education rotations in athletic training education programs (ATEPs) also incorporate longitudinal skill development, which take place at numerous settings with multiple students at multiple levels of development. This compounds the problem for the ATEP faculty responsible for accountability and monitoring skill progression and competence development, since they must abide by rules established by the National Athletic Trainers’ Association Educational Council, and provide security and protect confidentiality.\textsuperscript{3}

Notebooks and student logs that require the signature of the approved clinical instructor (ACI) are burdensome and bulky materials. If these materials are misplaced, the student may be required to repeat skills at semester end when grades are due. Additionally, using a master copy of student notebooks or logs means that at any given time, only the individual in possession of the documents (ACI, student, or course instructor) has the ability to track student progress. Software programs currently used to provide web-based tracking of medical residents may be adaptable for other health programs, but they are likely to be cost prohibitive for most ATEPs unless there is the opportunity to share resources with other health or medical programs within the institution. The purpose of this report is to present a viable use of web-based technology for tracking of athletic training clinical proficiencies that is consistent with available resources of a small ATEP and the clinic coordinator. The emphasis is intended to be the tracking process, rather than the assessment method. Some advantages and disadvantages uncovered during the implementation process are discussed.

\section*{Formatting and Manipulating the ATEP Skill Document}

Several databases are easily adaptable for tracking athletic training proficiencies.\textsuperscript{1} As cost is a consideration for programs with limited resources, Microsoft Office\textsuperscript{®} (Microsoft Corporation, Redmond, WA) was selected for our program, based on its versatility and affordability for all clinic affiliates. The skill proficiencies for each clinical educational experience had been previously delineated by the ATEP program director and clinical coordinator according to the domains specified in the ATEP Task Manual (available to all students and clinical instructors). Fourteen weekly subsets of clinical outcomes for each clinical experience were created to frame the learning progression for each clinical course, which utilized Microsoft Excel\textsuperscript{®} (Microsoft Corporation, Redmond, WA) sheets. The clinical proficiencies are taught in the clinical course and evaluated during subsequent weeks according to the due date specified. A clinical course spans a full semester. A 4-point Likert scale was used to demonstrate progress or to gauge the extent to which a student performed a skill or global proficiency. The criterion is an entry-level athletic trainer. Other data recorded were the date(s) performed (demonstrating learning over time) and the initials of the ACI responsible for skill assessment.
(Figure 1). Each student’s sheets are then uploaded to the intranet site for viewing by the student, course instructor, and/or clinical coordinator.

Both the ACI’s desktop personal computers (PCs) and personal digital assistants (PDAs) accommodate the Excel® files. PDAs are available from the ATEP; however, several ACIs decline the use of the PDAs because use of an additional instrument at the point of care was found to require considerable time and effort for clinicians who are already overtaxed by the demands of clinical practice. Most ACIs, who are the sole clinicians at the site, find the PDAs to be a cumbersome addition to the necessary tools and equipment carried to the field; however, the ATEP faculties in clinical and lab settings are successful in using the PDA in the clinical education classroom. The PDA data are uploaded (hot-synced) to personal PCs to transfer student outcomes to the central database. Most of the ACIs enter student data directly to a PC and subsequently upload files to the intranet site via the web. Popular PDA and web resources are available in the athletic training literature. Potentially, ATEPs with financial resources to upgrade to wireless technology would eliminate the upload step of the process.

**Web Component**

Web-based technology facilitates the clinical instructors’ regular evaluations being incorporated into students’ permanent files. The web-based application creates a mechanism for records of each student assigned to a particular ACI to be available for regular updates by the ACI and for updated student records to be instantaneously accessible to the ATEP faculty and the student. In addition to creating a way for ATEP faculty to more closely monitor the progress of students in clinical education classes, the web-based application is far superior to the physical, logistical, and security issues involved in hard-copy record keeping and transfer among clinical instructors. This application accommodates storage of student competencies through all clinical experiences until program completion. Development of the web-based application was accomplished through the collaborative efforts of the

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**Figure 1** Completed student worksheet.