

E-Record Books for Supervised Agricultural Experience Programs: An Information Management Tool for the 21st Century

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Introduction/Need for Innovation/Background

Experiential learning has long been an instructional method used to facilitate student learning in agricultural education. Often, these experiences have resulted from the student's Supervised Agricultural Experience (SAE) program (Camp, Fallon, & Clarke, 1999). Traditionally, students have been encouraged to document or "record" significant events related to their SAE. These data also provided the information used by students to complete applications for degrees and awards made available through the FFA. Camp et al. (1999) identified the factor "complete records are maintained by the students" (p. 167) as one of the most important guides for conducting an "effective" SAE. Frequently, the need to maintain "complete records" has manifested itself in students using some form of a record keeping journal. Usually, this has been a paper or hard copy "record book." However, Murphy and Terry (1998) stated that "computer-based telecommunications technologies" (p. 35) such as "electronic communication, information, and imaging technologies will improve how we teach in agricultural education settings" (p. 34). Yet, Harper (1993) posited, "We cannot expect students to learn the latest technologies without having active involvement" (p. 10). To this end, the Instructional Materials Service (IMS), Department of Agricultural Education, Texas A&M University in cooperation with the Texas Education Agency (TEA) and the Texas Engineering Extension Service (TEEX), has developed a web-delivered record book. This electronic record book is available to students and teachers—any time, anywhere, and any place—provided they have access to the Internet and a web browser.

In 1998, teachers and TEA personnel formalized the need to improve and update the existing record book. It was decided that a revised book should reflect *General Accepted Accounting Principles (GAAP)* and *Farm Financial System (FFS)* procedures, and include the essential data necessary for students to complete an application for the National FFA *American FFA Degree*. During the 1999-2000 school year, more than 4500 newly revised record books were distributed to 33 Texas and three out-of-state departments participating in a pilot test. National FFA and TEA staff provided assistance during the development process as well. TEEX personnel developed a "prototype" web-delivered e-record book based on the newly revised hard copy "template." Following input from stakeholders about alternate delivery methods to the traditional paper format, and after further exploring web-delivery options, it was decided to develop fully a web-delivered electronic record book.

How it Works

The web-based, e-record book will be made available online. Depending on anticipated annual need, “user” (student) subscriptions (e-record books) will be provided on a departmental basis; subscription will include data storage and archival options. System access will require both a “user id” and a password. Teachers will serve as on-site “administrators.” After requesting their department’s annual subscription(s), teachers will be provided user identifications and passwords to assign to individual students. Instructors will have the option of obtaining additional subscriptions throughout the year, and will have the online capability to access and evaluate their students’ e-record books, view school account information, and add/delete students as needed. The TEEX and the Computer Information Services (CIS) at Texas A&M University will provide technological expertise and the server space necessary to support database management and the archiving of students’ records. A linked “Contact IMS” e-mail address is available to all users of the e-record book, and a LISTSERV has been provided to answer teachers’ questions about record keeping, the newly revised record book, and the online e-record book.

Implications and Future Plans

A web-delivered record keeping system, one that has been designed and customized to meet the needs of students conducting a SAE program, should provide students and teachers with significant opportunities to acquire and use computer-based telecommunications skills (Murphy & Terry, 1998). Moreover, because acquisition and mastery of these skills will take place within the context of a ubiquitous program component (i.e., SAEs), potentially, all students could benefit. Pragmatically speaking, the web-delivery system will accommodate either PC or Macintosh platforms, which may further increase its potential for use; yet, besides a web browser, there is no requirement for locally-installed software or the concomitant need for updating. Also, because of the nature of web-delivered technologies, any future system changes should cause minimal disruption in service when compared to other electronic alternatives such as replacement diskettes or CD-ROM upgrades. After additional developer beta testing, the e-record book will be pilot tested by 15 departments in the spring of 2001. Trial subscriptions will be made available to university agricultural education departments, state and nationwide, for use by pre-service teachers and teacher educators. General availability is expected to begin in the 2001-2002 school year. Moreover, the next anticipated system upgrade will provide users with the capability of generating completed FFA Degree applications from the data stored in their e-record book(s).

Resources Needed

Users must have Internet access and a web browser. The CIS host site at Texas A&M University server requirements include a Windows NT Server (v. 4.0 or higher) with the Microsoft IIS web server (latest version) installed, Allaire’s ColdFusion Server Enterprise Edition application server (v. 4.5 or higher), and Microsoft’s SQL Server (v. 7.0 or higher).

References

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