

## Using Electronic Media in Career Development Events

### *Poster Abstract*

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Registering and disseminating results for 13 Career Development Events (CDE) can be tedious and time consuming when using paper methods. One method maximizing efficiency of state staff and secondary agricultural education teachers' time and energy is utilizing various sources of electronic media.

Rules and pertinent career development event information have been available for several years on a website operated by the Nebraska Institute of Agriculture and Natural Resources (IANR). Starting in 1999, Nebraska secondary agricultural education teachers were required to register their students via the CDE website to compete in the annual state agricultural education career development events. This past spring not only did teachers register their students on the web, but individual and team scores and rankings, as well as photographs of the finalists were available only on this web site.

Traditional methods of registration and dissemination of results of career development events were completed by paper methods prior to 1999. Teachers would receive a packet in the mail including event updates and event registration forms 4-6 weeks prior to the registration due date. Registrations were completed and returned either by U.S. Postal Service or faxed. Some registration forms were typed others were handwritten. The quality of the handwriting or fax determined the accuracy of schools and spelling of participants' names. Registrations were lost in the mail or sent to the wrong place. Disseminating results had similar problems. The number of events and student participation were increasing and the schedule was reduced from 3 to 2 days. Paper results and ribbons were sent via postal mail the day after the events. Teachers would receive these 2-3 days later. It was this frustration plus the fact there was a more efficient and expedient manner of registering and disseminating results that lead to using electronic media. A concern of this project was ensuring a successful transition of teachers to electronic use.

The purpose of this project was threefold. First, increase the efficient use of time and resources. Second, increase school and student entry accuracy. Third, utilize available technology. Paramount to a successful transition to electronic delivery was the communication between the teacher and state CDE coordinator. Even though this may not have been an objective of the original project, it was key in implementing the electronic registration process. In-service was made available as well as mailing detailed registration instructions.

## Resources and Procedures

To register and receive results electronically, teachers needed a computer with internet access. The internet browser needed to have versions 3.0 and higher of Netscape Navigator or Internet Explorer. A printer was necessary to provide a hard copy of registrations. All teachers were provided with an on-line procedures document and passwords. Teachers were encouraged and provided in-service at the district level. In-service was conducted by state CDE staff explaining and demonstrating the electronic registration procedure. Teachers then had the opportunity to register a team electronically. This was beneficial to the teacher to see how the system worked. It also served as a check to see if the system was working.

At the state level, a webmaster was key to the success of electronic delivery. In our case, undergraduate students serve as the electronic technicians and are instrumental in preparing, delivering, and compiling registration information and event results. If they have any questions, they ask assistance from our building's computer technician and/or IANR's file server administrator. Computer(s) with server access and space are needed. Until recently, the CDE website only used HTML 4 programming. A few Java Script highlights have been added by using quick link boxes. If teachers were using older browsers, they were not able to access registration and result information. Result pages were coded using Microsoft Excel. As well, both Hotdog and Arachnophilia software pages were used to code. Due to the nature of our file server, File Transfer Protocol (FTP) was used to transfer files to and from the server.

Registration information received from the teachers was downloaded and imported into Microsoft Excel. The data was manipulated to provide registration lists and working spreadsheets to event directors (faculty). Excel files were sent electronically. After the event, results were processed on the Excel spreadsheets. Excel macros were made in advance, allowing the director to instantaneously score and rank individuals and teams. These tables were posted on the web as soon after the awards ceremony as possible.

In the past, the IANR Computing Information Technology (CIT) department provided press releases of the events as well as photographs of the top 3 teams and individuals available to all Nebraska weekly and daily newspapers. This service was not available in 2000. CIT electronically delivered a press release stating electronic pictures and instructions on how to download the top individuals and teams were available on the CDE website. Undergraduate students took digital pictures and processed the images with Photoshop. Images were saved as JPEG files and uploaded to the CDE website.

Access to the CDE website was controlled to pages containing students' pictures, scores, rankings, and high school affiliation. Passwords were distributed and used by teachers and news editors to access this information.

## Results

A total of 3,250 event contestants were electronically registered. All 130 schools registered electronically by the March 15<sup>th</sup> due date. Only 3 team registrations were lost in "cyberspace". Registration tasks (from teacher to event director) were completed in 2 days compared to 10-14 days under the old method.

All event results were available for the awards program. In previous years, typically 2-3 events' results were not available. Results and pictures were available electronically 7 hours

after the awards programs compared to 2-3 days under the prior system. The CDE website had 300 visitors the day after the awards program. Visitors reflect a combination of teachers, newspaper editors, and students.

Accuracy was difficult to measure. Misspelled names and errors in ranking teams and individuals were two factors to avoid. There were fewer errors with electronic technology (98% accuracy as compared to the prior system), though the information was only as accurate as the individual who entered the data.

## **Conclusions**

Electronic registration and result dissemination of Nebraska Agricultural Education Career Development Events have been widely accepted by secondary agricultural education teachers and newspaper editors. Also, teachers utilized the rules and study guides in their instructional programs.

Communication to all stakeholders was key to a smooth transition and continued use. In-service, as well as annual written communication to teachers and newspaper editors, was important to update annual changes and procedure requirements. As well, providing CDE staff 2 weeks prior to and after the events to answer any procedure questions by teachers and newspaper editors was helpful.

Highly trained and motivated undergraduate students were key to designing and operating this CDE website.

As teachers use electronic media, they request more programmatic efforts using this dissemination medium. It was important to design the CDE website to be used by the minimum system component. For example, teachers using an internet browser version lower than 3.0 could not access registration forms.