Analysis and Evaluation of the Effectiveness of Gearing Up: Production Agricultural Safety Training for Youth, the Computer Assisted Instruction/Multimedia Farm Tractor and Machinery Safety Curriculum


PURPOSE

The purpose of this research was to evaluate the effectiveness of an interactive CD-ROM and World Wide Web (WWW) educational program, entitled Gearing Up for Safety: Production Agricultural Safety Training for Youth, to teach teenaged youth critical production agricultural safety and health-related competencies required under the Fair Labor Standards Act: Hazardous Occupations Order in Agriculture.

ABSTRACT

The purpose of this research was to evaluate the effectiveness of an interactive CD-ROM and World Wide Web (WWW) educational program, entitled Gearing Up for Safety: Production Agricultural Safety Training for Youth, to teach teenaged youth critical production agricultural safety and health-related competencies required under the Fair Labor Standards Act: Hazardous Occupations Order in Agriculture. The selected community-based teaching strategies were evaluated and compared for their effectiveness in developing knowledge, changing attitudes and behaviors and improving practices related to the safe operation of agricultural tractors and machinery.

The new curriculum was based upon a set of critical core competencies developed by the researchers and an expert panel of various stakeholders chosen for their personal interest and expertise in the areas of agricultural safety and agricultural education. A comparative field test between the computer-based curricula (CD-ROM and WWW) and a traditional instructor-based curriculum was conducted in the fall of 2002. Six geographically diverse Indiana high school agricultural science and business classrooms were used for the comparative field tests. Classrooms were divided randomly into thirds with one-third of the students receiving instruction via CD-ROM, a third receiving instruction via the WWW, and a third with a teacher in the classroom using a traditional method of instruction.

The study found there was not a significant difference in knowledge gained or change in attitudes and behaviors between students using the CD-ROM, the WWW or those learning in a traditional classroom setting. Additional findings showed that youth who participated in the computer-based curriculum had a positive attitude towards computers and their role in education. It was concluded that the new interactive curriculum was an effective method for teaching youth critical health and safety topics related to production agriculture and changing both attitudes and behaviors.