

The Virtual Agricultural Education Program: How does it work?

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Introduction/Need

Online learning is becoming an increasingly popular choice for students of all age levels (Barbour and Mulcahy, 2008). In 2009 – 2010, elementary and secondary students took approximately 1.8 million courses online with about 250,000 students enrolled full-time in virtual schools in 2010 –2011, up from 200,000 the previous year (Center for Public Education, 2012). Virtual schools are a fit for families who need flexible scheduling, such as military families, career-focused students, students with learning difficulties, or advanced learners. As of 2018, 24 states have State Virtual Schools (SVS) (Digital Learning Collaborative, 2018). The development of SVS poses the question of how to incorporate career and technical programs, such as agricultural education, to preserve student engagement and provide opportunities to students beyond the classroom (Mupinga, 2005).

With the shortage of agricultural teachers nationwide (Smith, Lawver, & Foster, 2018) the offering of virtual agricultural education program may be an answer to address teacher shortage. The implementation of the Arkansas Virtual Academy (ARVA) agricultural education program was designed to help give students opportunities not available in required core classes in ARVA.

How It Works

Croom (2008) stated, “the predominant model for organizing instruction in agricultural education involves the interrelationships between three major concepts: classroom and laboratory instruction, supervised agricultural experience, and agricultural youth organization participation” (p.110). These components are called the three-circle model. The ARVA agricultural education program was initiated by incorporating the three components of the three-circle model. Classroom instruction was first implemented in the school by adding agricultural courses in animal science and survey of agriculture as elective class options for students. This curriculum focused on interactive learning while giving students a basic understanding of agriculture and its application to their lives.

The program received approval to incorporate career pathways to fulfill the second portion of the three-circle model. The pathways helped students to become completers when they graduate high school, making students more marketable to employers and post-secondary institutions or programs. Supervised Agricultural Experiences (SAE) were added to allow students to apply skills learned in the classroom to solve real world problems. Students can complete a SAE in one of six areas: Entrepreneurship, Placement, Research, Exploratory, School-Based Enterprise, or Service- Learning. The SAE provides students an opportunity to explore potential career paths and make connections with possible employers.

The last phase of the three-circle model was implemented with the chartering of an FFA chapter. Meetings for the chapter were held using a video teleconferencing program with field trips offered virtually through videos and modules. Activities were held across the state in different locations, so all students had the opportunity to attend an event in the area where they live. Students also practiced for Leadership Development and Career Development Events through video teleconferencing programs and used online study tools to help prepare them for tested competitions.

Results

The instructional component of ARVA's agricultural program was initiated in the fall of 2017. The school offered two agricultural courses with 17 students enrolled. In 2018, the school offered two different agricultural courses with 69 students enrolled in the program. Currently, the program has been approved for two career pathways to begin in school year 2019 – 2020. With this approval, ARVA has become the first chartered virtual FFA chapter in the United States. The chapter currently has 46 members and has elected six chapter officers in April 2019. The program implemented SAEs using the Agricultural Experience Tracker with teacher visits scheduled for summer 2019.

There has been a large increase in student enrollment (306% in two years), and positive feedback provided from school administration, students, and parents of students enrolled in the program. Additionally, SVS from other states have contacted ARVA about implementing virtual agricultural education programs.

Future Plans

Plans include continuing the development of agricultural education courses in ARVA. Specifically, ARVA is identifying best SVS practices to provide continued improvement. These results will be shared with other SVS. Additionally, there is the potential to expand course offerings for other Career and Technical Educational programs such as FBLA, DECA, FCCLA, and Skills USA.

Costs/Resources

The main cost of the program is the instructor salary for development and instruction of the curriculum as well as an administrator to apply for pathways and charters and promote the agricultural education program. Instructors need up to date technology for quality instruction and virtual interaction with students and a budget for travel. Student also need adequate technology to interact with the instructor. Student costs include the FFA membership fees and some funding to attend camps, conferences, and competitions. Four students recently attended the Arkansas FFA State Convention with costs paid by ARVA. The officer team is planning on attending the Arkansas Leadership Conference during the summer. An FFA Grant for Growing was applied for to hold a three-day summer training session for the newly elected officer team to plan the year, tour local farms, and receive leadership training.

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