

Helping Students ZOOM into the Classroom: Virtually Touring Secondary Agricultural Education Programs in a Junior Level Teacher Preparation Course

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Introduction/Need for Innovation

Agricultural Education is currently facing a teacher shortage (Smith, Lawver, & Foster, 2017) and the retention of teachers who are entering the profession is low (Hasselquist, Herndan, & Kitchel, 2017). In some cases, programs are forced to close their doors due to a lack of qualified individuals to fill the position (Smith et al., 2017). Chapman's (1984) model of teacher retention identifies several factors that impact teacher retention. Chapman (1984) noted, "the single strongest predictor of retention was initial commitment to teaching" (p. 655). He continued to explain that teacher education programs may have a meaningful impact on an individual's initial commitment to teach (Chapman, 1984). Along with initial commitment to teaching, teacher education programs also need to provide students with opportunities to "think about (and understand) teaching in ways quite different from what they have learned from their own experiences as students" (Darling-Hammond, & Bransford, 2005, p. 358). Because teacher education programs have such a meaningful impact on the initial commitment to teach (Chapman, 1984) and experiencing a variety of secondary education programs is important for per-service teachers to develop (Darling-Hammond, & Bransford, 2005), the team sought to enrich the educational experiences of future agricultural educators by developing a virtual tour program. The team implemented tours into a junior level agriculture education course. The program allowed students studying agricultural education to meet current teachers, experience different educational settings, and develop a network in agriculture education. Integrating virtual tours into a teacher preparation course advances the national research agenda for the American Association for Agricultural Education priority area five – Efficient And Effect Agricultural Education Programs (Thoron, Myers, & Barrick, 2016)

How It Works

Virtual tours provided students a way to visit agricultural teachers at a reduced cost to the [department]. Virtual tours also provided access to teachers and secondary agricultural education programs that were otherwise inaccessible. Juniors in the [department] at the [University] are asked to begin exploring potential student teaching sites. All juniors planning to student teach will select three potential student teaching sites by March of their junior year. Because junior students are asked to select three potential student teaching sites, providing more opportunities for students to learn about secondary agricultural education programs became a priority for the [University] students.

We designed the program to meet three specific goals: 1) provide opportunities for undergraduate students to explore agricultural education program facilities in [State] and the surrounding states, 2) foster conversations between current teachers and undergraduate students on topics related to the course content in the agriculture education course, and 3) help undergraduate students gain experiences that may help them connect to the profession and increase their initial commitment to teach. To begin, we created a schedule for tour and topics to match the weekly topics on the course syllabus. Next, secondary teachers were purposively selected to match the content area of the week. Teachers were contacted three weeks in advance and scheduled for a virtual tour. For example, the teacher preparation course content includes the integration of supervised agriculture experiences (SAE) into a secondary agricultural program. A

tour was then scheduled with a teacher who integrates SAEs into their program. Three formal discussion questions related to the week's topic were provided to the undergraduate students and secondary teacher. In addition, students were given the opportunity to ask their own questions. After the tour, students reflected as a class.

Our team chose to use Zoom, a video conferencing software, to conduct the virtual tours. This software is easy to use on laptops, tablets, and smartphones. The teacher preparation course was 50 minutes long, so virtual tours were scheduled for 35 minutes. The tour time was divided into two parts, a 20-minute tour of facilities and a 15-minute discussion period. The tours were recorded using Zoom and posted on the class website. Posting the recordings allowed absent students to visit the program.

Results to Date

In the fall of 2018, students in an agriculture education course toured eight programs in six different states and spoke with nine teachers who all added value to the course content. A group review was held at the conclusion of the semester to reflect on the virtual tours. Students found each visit helpful in describing agriculture education. One student said, "I appreciate seeing the classroom and program set up". Some students who were involved in a secondary agriculture education program, learned that programs can be different saying, "I enjoyed looking at programs that were different from the one I came from". As Darling-Hammond and Bransford (2005) suggested, it is important to give students experiences that help them understand education in a broader context.

Because the fall integration of virtual tours was successful, a spring elective course is being taught. This class allows students to seek their own programs to tour, create their own topics and discussion questions, and connect with teachers of their choice. The goal of this course mirror the original program and allow students the opportunity to schedule events and communicate professionally with secondary agricultural educators.

Future Plans

In the review session, students requested more time to connect with alumni and supporters. We will consider student feedback when planning future tour integration. We are evaluating ways to connect undergraduate students with stakeholders, including state FFA alumni members and industry representatives across [state]. Students complete course evaluation at the end of the semester. The evaluations will provide insight to the team to make improvements for the future.

Costs and Resources

While virtual tours are fairly inexpensive, willing secondary teachers are necessary for the successful of the program. In order to host virtual tours the class instructor at the university will need a computer to connect to zoom. We displayed the zoom meeting on a projector for the entire class. The secondary teacher whom the class is zooming with, will also need access to the internet, and a laptop, tablet or cell phone. Additionally, a Zoom account needed. Zoom is free for meetings 45 minutes or less. The Zoom Pro account is \$14.99 per month per host and allows for more time. An appreciation gift was sent to teachers and on average costs \$20.

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