

Realistic Experiential Learning for Dual Credit Agricultural Education Students

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Realistic Experiential Learning for Dual Credit Agricultural Education Students Introduction and Need for Innovation

Research supports multiple benefits for students entering college with dual credit earned while in high school. Retention rates, persistence to graduation, economic impacts, and other benefits for those with core academic area credit are well documented for several years (Eimers & Mullen, 2003; McCarthy, 1999). Colleges of agriculture only recently adopted the dual credit program concept as it relates to agricultural-content courses; however, research already supports a continued need for university agricultural courses offered for dual credit to high school students to assist with persistence to college, accessibility due to financial constraints, and perceived sense of efficacy for completing collegiate coursework (Chumbley, 2016).

Agricultural education programs seeking to meet the supply for a continued shortage of qualified agricultural teachers (Smith, Lawver, & Foster, 2017) may not see a reasonable means of introducing the agricultural teaching profession to high school students through “meaningful, engaged learning in all environments” (Edgar, Retallick, & Jones, 2016, p. 36) when offered via a distance platform. The [State Teacher Licensing Board] further confounds this situation by requiring that all early field experience hours recorded before student teaching are tied to a professional education course.

The Murray State University Racer Academy of Agriculture offers multiple dual credit courses for students interested in agriculture. One course, AED 104 – Introduction to Agriculture, is the initial professional education course required of agricultural education majors and requires 25 hours of early field experiences for licensure. To address these concerns and provide potential answers to research priority 4’s questions 2 and 4, “what are the most effective models for delivering agricultural teacher education programs to reach nontraditional audiences?” and “how do we make project-based learning more relevant and contemporary in youth programs in agriculture and natural resources?” (Edgar, Retallick, & Jones, 2016, p. 39), the innovative idea of engaging AED 104 dual credit students with the National FFA Project PALS (FFA, n.d.) curriculum to teach elementary students was implemented. Not only did this experiential activity more appropriately mirror the age gap between a student teacher and his or her high school students, but it also provided more realistic and repetitive teaching experiences grounded in student-centered lessons, engaging strategies, and opportunities for teacher collaboration and reflection.

How it Works

Through the online platform, students were provided background information regarding the early field experience hour requirement. They were also provided theoretical and philosophical lessons about the need to teach students using a variety of engaging strategies that address multiple intelligences. After the students worked with the local high school agricultural teacher to identify an elementary teacher with whom they worked, they made contact to explain the expectations. Students were reminded that consistency was a key component, so they needed to select a group with whom they could work at least five times during this course and no more than once per week. They then carried out the following steps:

Step 1: The high school student arranges with an elementary teacher and the local high school FFA advisor to work with a group of students a minimum of five times over the course of the semester.

Step 2: The high school student selects the PALS (Partners in Active Learning Support) Handbook appropriate for the age group of the elementary students (grades 1-2, 3-4, or 5-6).

Step 3: In advance of each visit, the student selects a lesson from the Handbook that is appropriate for the elementary students, the time, and the materials available.

Innovative Idea

Step 4: *PRACTICE, PRACTICE, PRACTICE!* To support the idea of effective teaching experience, the students had to invest time getting into the lesson plans and getting to know the objectives and the content. While there are some "scripted" parts of the lessons, the students were encouraged to adapt the language so that they shared ownership in the delivery.

Step 5: Teach and have fun! The lesson plans are designed to follow the lesson cycle that best helps students cognitively transition between objectives and activities, as well as to relate the concepts to the students' lives so that they can see the relevance to themselves. They were also encouraged to have their cooperating elementary teacher take photos or video of them working with their PALS students.

Step 6: Keep a reflective journal of all lessons. Journal entries captured concepts of lessons taught, methods used to teach, elementary students' responses, successes, areas for professional improvement in teaching, comments heard from students during the lesson, and any other critical information allowing the high school students to reflect on and improve their teaching practice. The final journal entry was a summary of the most valuable experiences from this exercise and how the high school students will use these experiences to help shape their philosophy and future approach as an agricultural teacher. Journal submission was online and could be either a written or a video reflection.

Implications

To date, 33 high school students have engaged in this project-based experience. Overwhelmingly, the responses from the students and the teachers have been positive. Two excerpts from student journals:

"One thing that I learned that I consider most valuable is that not every student will understand things as well as others. I have to change the way I teach for each student. Also I have to be aware of each students' needs..."

"I truly believe that I made an impact on these students. They told me all about how they told their families and even people at the grocery store things they had learned. One student even convinced his parents to help him start a garden after we talked about the food pyramid. I'm so glad that I was given the opportunity to teach these students. It turned out to be so much more than just a grade."

Future Plans/Advice to Others

Pre- and post-test research with the high school students regarding their levels of efficacy in teaching agriculture, and formal program evaluation research will assist in making improvements over time. Others seeking to implement this must consider student mobility to get to sites for teaching.

Costs/Resources Needed

All lessons are available as a free online resource via the National FFA website. The students could log into the website with assistance from their local high school agricultural teacher, or the university hosting the course could upload each of the manuals as a direct .PDF link. Additionally, providing guidance and link access to the E-Moment strategies in .PDF form on the website better assist students in conceptualizing some of the methods they could use to further engage their students in the lessons. The enrolled students incur all other costs depending upon the lessons they elect to teach and the availability of resources through their local high school agricultural program or through their partnering elementary teacher.

References

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