

**Enhancing the Pre-Service CASE Training Experience with Visiting Professionals**

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## **Enhancing the Pre-Service CASE Training Experience with Visiting Professionals**

### **Introduction and Need for Innovation**

Previous work done at Texas Tech University (TTU) has shown the benefits of CASE training at the pre-service level. Although the work at TTU was completed with training in Agricultural Science – Animal, much of the data gives insight into the benefits for preservice training in all areas of CASE. In a semester long institute, students indicated that they “learned strategies for integrating science into agriculture, became familiar with CASE, and gained confidence in their ability to integrate science in their classrooms” (Carraway, et al., 2015, p. 95). Additionally, the students became advocates for CASE with populations outside of the university setting. Students knowledge in the content (Animal Science) and in science were assessed prior to the semester and after the semester. Statistically significant gains were found in both (Carraway, 2015). CASE training integrated into the preservice instruction has a positive outcome on future teachers’ knowledge, ability, and confidence to teach science.

Kansas State University is a Curriculum for Agricultural Science Education (CASE) Affiliate Institution. Current faculty at Kansas State University were some of the first university personnel to work with CASE, starting in 2010. In the fall of 2016, the Agricultural Education program began integrating the CASE certification of pre-service teachers during the semester prior to student teaching. While the integration has been successful, the faculty determined there were elements that should be improved. When summer CASE Institutes are offered, current agriculture teachers (i.e. Lead Teachers) teach them. When CASE is integrated into the preservice curriculum, it is difficult to bring current high school teachers to campus due to their teaching schedule. Instead, trained faculty members must teach the institute material. In an effort to include current teachers in the pre-service training program, a “Visiting Professional” program was initiated at Kansas State University.

### **Methodology**

This program created Visiting Professional days to teach the pre-service CASE Certification program. The CASE training focused on the Introduction to Agriculture, Food, and Natural Resources (AFNR) course. As a curriculum, AFNR is an easy fit in a high school freshmen introductory course. Most of the graduates from Kansas State University will teach an introductory class, so it was determined this would best serve graduates, while also creating a foundation for all of the CASE pathways that a teacher may work toward in the future. Current CASE certified teachers who wanted to be considered for the program had to complete an application indicating their availability and the specific lessons they were interested in facilitating.

In addition to teaching the pre-service teachers, the Visiting Professional was encouraged to visit a facility or department within the College of Agriculture while they were on campus. This professional development opportunity allowed current teachers to deepen their own content knowledge and make new connections to faculty at Kansas State University. It also allowed current teachers the ability to improve their own program and curriculum. The inclusion of the professional development component allowed this model to benefit all invested parties, pre-service teachers, practicing teachers, and existing agriculture programs.

The Fall 2017 program started in August by sending applications to current certified CASE AFNR teachers in Kansas asking certified teachers to apply to be a Visiting Professional during the fall semester. Next, teachers were selected and assigned a day and topic(s) to teach. During the months of September and October, the Visiting Professionals taught, or team-taught with university faculty, the CASE lessons to the pre-service teachers. In November, the 19 pre-service teachers were assigned a local school, specific class, and a CASE lesson(s) to teach in order to practice the skills and knowledge gained from the Visiting Professionals.

### Results

The on-campus class met twice each week during the fall semester, with the last two weeks having more meeting time to match the required hours for certification. Visiting Professionals taught during 8 of the 20 class meeting times during the Fall 2017 semester. To expand the pre-service teacher experience even further, the pre-service teachers selected lessons to teach to high school students in seven area agriculture programs. Each pre-service teacher taught two CASE lessons for two days at the same school. This allowed them to apply the information gained from working with the Visiting Professionals to a genuine teaching experience. The total population impacted by the project during the 2017-18 school year included 19 pre-service teachers, 17 High school agriculture teachers (eight as Visiting Professionals and nine as local high teaching site hosts) and high school students from 19 different student teaching sites during the Spring 2018 semester. Outcomes for the program included: increased teaching efficacy for preservice teachers, increased connection of preservice teachers to in-service teachers and stronger connection between Kansas State Agricultural Education and current classroom issues.

### Future Plans/Advice to Others

An application was provided to the current CASE teachers in Kansas and the interest was higher than the opportunities available to teach, in the future the number of teaching opportunities for Visiting Professionals will be expanded from eight to ten. Based on positive feedback from both the Visiting Professionals and the pre-service teachers, the program will continue for the upcoming school year and be improved by providing additional times for the visiting professionals to teach and purchasing more equipment and supplies for the pre-service teachers to take into the high school classroom they guest-teach the CASE lesson in.

### Costs

Funding provided by a grant from Dupont Pioneer for travel, hotel, meals, and an honorarium.

<b>Visiting Professionals</b>				
Substitute Teacher Expenses	\$75/day	10	\$750	
Mileage	\$150 (avg.)	10	\$1500	
Meals	\$25/day	10	\$250	
Teacher Stipend	\$100/day	10	\$1000	
Hotel	\$100/day	3 (appx. 1/3 will need a hotel)	\$300	
<b>Pre-Service Teachers Teaching CASE in local schools</b>				
Pre-Service Teacher Mileage to teaching sites	\$100 (avg.)	7 teaching sites with 2-3 teachers assigned per site	\$700	
CASE lab equipment for Per-Service teachers to use in schools	\$750	Additional teaching supplies	\$500	
<b>GRAND TOTAL</b>				<b>\$5,000</b>

### References

- Carraway, C. (2015). *Exploring the integration of science into Agricultural Education* (Doctoral dissertation). Retrieved from <https://ttu-ir.tdl.org/ttu-ir/handle/2346/62308>
- Carraway, C, Ulmer, J. D., Burris, S., Irlbeck, E., & Price, M. (2015). A case study of preservice teachers receiving curriculum for agricultural science education training in a semester course. *Annual Western Region of American Association for Agricultural Education Conference, Corvallis, OR*. 84-98.