

*Ah-Maize-Ing Adventure: A Corn Focused HILO for Preservice Teachers*

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### **Introduction/Need for Innovation**

High impact learning opportunities (HILO) can be “defined as activities that purposefully and systematically encourage students to create new knowledge, make connections across curriculum, explore opinions/views/perspectives beyond their own, and engage in critical thinking” (Murphrey, Odom, & Sledd, 2016, p. 162). It is through these high impact experiences that students are pushed to make connections between what they have learned in traditional classrooms to real-world examples (Kuh, 1995; Kuh, 2008).

Agricultural education student interns will soon be entering agricultural education classrooms across the state and nation. As a high school agriculture teacher, they will educate their own students about the agricultural industry. Participating in a HILO will strengthen and diversify the knowledge and experiences of teachers regardless of their agricultural background. Additionally, this experience will model the importance of planning and conducting high quality educational trips (i.e. field trips) for their future students.

### **How it Works/Methods/Steps**

In the past, student interns came to campus for a mid-semester meeting. We wanted to enhance that experience by taking a trip focusing on agricultural education and the agriculture industry. This specific project allowed for the application of corn-focused topics and issues outside the traditional classroom. Student interns explored the corn industry in Kansas during a two-day high impact learning opportunity (HILO). In order to make the most of our time together, we limited the geographic area to the northwest portion of the state. This allowed students to experience a part of the state that many had never traveled to or spent any time in.

We worked in tandem with the Kansas Corn Commission (KCC) to plan this experience. The KCC is committed and progressive in their education outreach activities. One faculty member worked with a contact person at the Kansas Corn Commission to set up the tours and the schedule. Hotel rooms and motor pool vehicles were reserved and meals planned. KCC and Kansas State University branded items (cup and notebook) were ordered to present to the tour hosts and presenters.

Prior to the trip students were assigned to a group to write questions for a specific tour stop. The questions were sent to the presenters ahead of time. They were also provided to the students at each stop to ask them if the presenter did not address them on their own. Students wrote a thank you card for the host prior to the stop and presented a gift and card at the end of each visit. At the end of the first day, students were led in a group reflection to assess their learning. They also evaluated the components of planning an experience for their own students. Open dialog was used to discuss elements of planning a field trip or an extended FFA event such as National FFA Convention.

### **Results to Date/Implications**

The Ah-Maize-Ing Adventure high impact learning opportunity occurred in the spring 2017 semester. Nineteen student teachers and four faculty members participated in the two days of tours, reflections and group bonding.

The tour started with a beginning teacher and ended with an experienced teacher. The corn related tour stops included a farm operation, ethanol plant, and feedlot. We also stopped at a precision agriculture company which was started by community entrepreneurs. This stop included a discussion of the importance of community members for a successful agricultural education program. The stops were planned on purpose to show the progression of corn through the production chain (farm, ethanol plant, feedlot).

Students were asked to reflect on the experience and respond to reflection questions at the end of each day. Students enjoyed the experience and were able to identify ways they could utilize the experience in their future classroom. One student states they learned they should *“utilize the resources around you: seed reps, chemical dealers, grain elevators – hands on exposure is valuable.”* Another student commented, *“[I can] call Kansas Corn for help with tour setup, resources, and for contacts near [my] location.”* Students commented that the experience helped them learn to *“Go out and explore, see other ag industry”* and to *“show students the diversity of ag, hands-on with tours.”* One student commented on the need to *“pre-plan questions [and] prepare thank yous.”*

Students recommended changes for the future HILOs: *“a little bit of down time...[to] ask individual questions”* and *“having a time schedule with structured plan, but then have some wiggle room with time in case something would come up.”* Students also recommended, *“[teach a related lesson] to give a baseline of knowledge and to also help build up the excitement/anticipation.”*

### **Future Plans/Advice to Others**

The HILO was successful because of the partnership between university agricultural education faculty and the commodity group. Assigning students to research and write questions for a specific tour stop insured that questions would be thoughtful and available if needed. The experience helped students visualize how they could plan HILOs for their own students. We plan to do this again every spring as long as the funding is available or we will look for additional partnerships with other commodity groups or the agricultural teacher organization.

There were several challenges with the experience. Students had to drive themselves to the starting point and for some it was over four hours from their student teaching location. They also missed two days of school to participate. One student was not able to join and we did not have an effective way to disseminate missed content. We recommend budgeting more time for reflection and debriefing at the end of each day to “unpack” their experiences and observations. We did allow for one stop at a state landmark, which allowed students to have a break from the information rich stops.

### **Costs/Resources Needed**

We received a grant from the Kansas Corn Commission for the HILO. We spent \$2,316 on hotel rooms (12 rooms x 2 nights), \$717 on two meals, \$1,075 for three motor pool vehicles and fuel, \$808 on corn promotional items, and \$295 on host gifts. The total cost was \$5,211 for the two-day experience. Students were responsible for getting themselves to and from the start/finish location, but the grant covered all remaining expenses.

## References

- Kuh, G. D. (2008). High impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: Association of American Colleges and Universities.
- Kuh, G. D. (1995). The other curriculum: Out-of-class experiences associated with student learning and personal development. *Journal of Higher Education*, 66, 123-155.
- Murphrey, T.P., Odom, S.F., & Sledd, J. (2016). An Examination of University Agricultural Education Faculty Attitudes toward the Implementation of High Impact Learning Experiences. *Journal of Agricultural Education* 57(3), 162-179. doi: 10.5032/jae.2016.03162