

Successfully Delivering a USDA Ag Discovery Program Utilizing Experiential Learning in a Virtual Environment

INTRODUCTION

The United States Department of Agriculture (USDA) Ag Discovery Program has been successfully implemented for the past four years at the California State University, Fresno. It is a summer program established through the USDA to give high school students the opportunity to explore career options in the plant and animal sciences and agricultural business. Staff at Fresno State are charged with managing the program, organizing staff, developing curriculum, and completing program logistics such as facilities, equipment, and travel arrangements for visiting students.

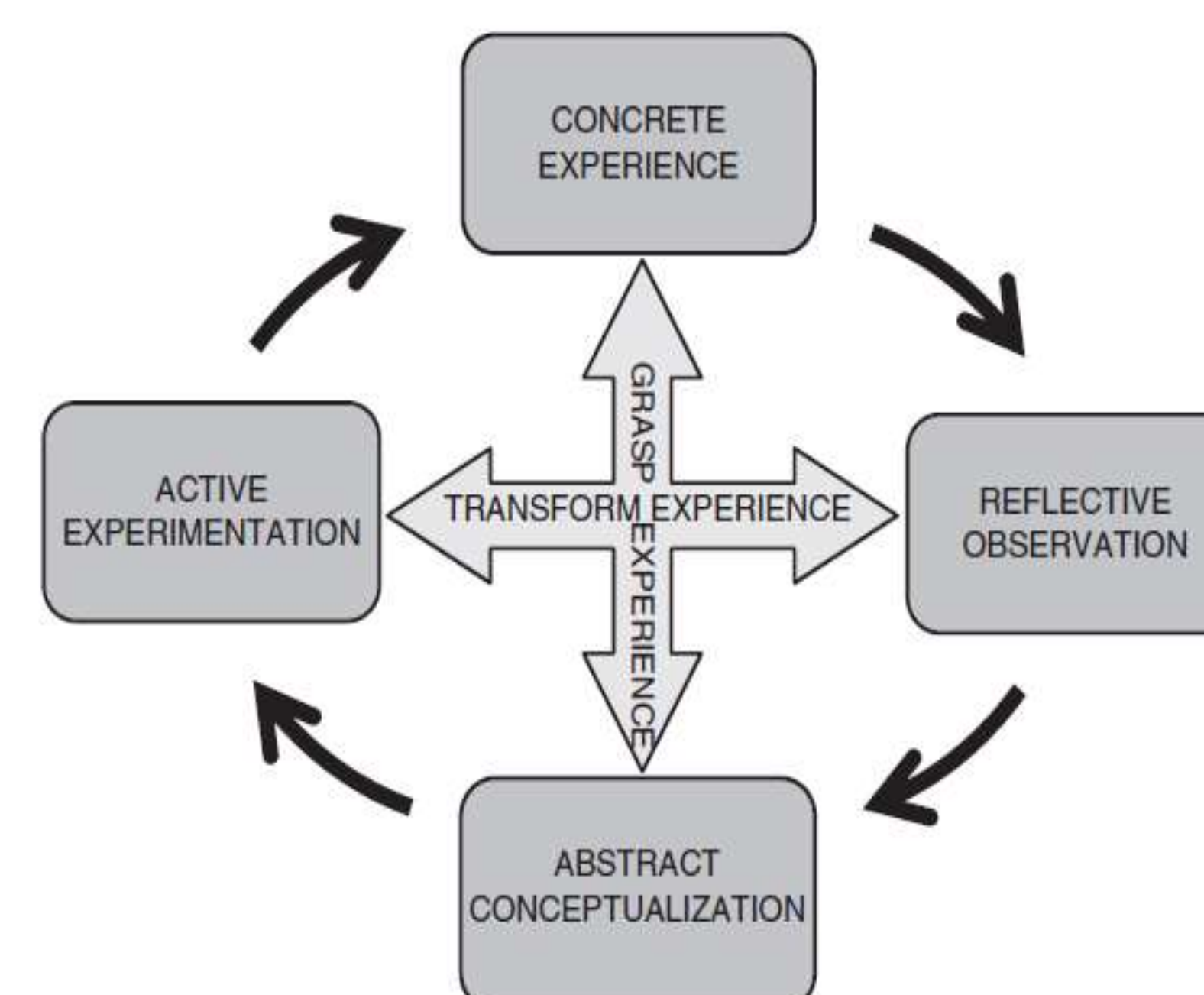
Due to the restrictions of COVID-19, Ag Discovery 2020 was held virtually for the first time by several of the state programs, including Fresno State. Sixteen students across the United States participated in the two-week program. Zoom and Google Classroom quickly became common-place terms as staff, and students, learned about technology requirements to sustain the two week program. Students spent three to four hours a day on Zoom with coordinators and viewed live presentations, pre-recorded sessions, and completed evening assignments on their own.

Prior to the program starting, staff discussed how participants would effectively learn, build comradery, develop a class culture of respect, and, most importantly, if experiential learning could be effectively delivered through online education. The Ag Discovery Program at Fresno State was able to effectively implement an online program accomplishing these tasks.

RESULTS/FUTURE PLANS/COSTS

The lesson was effective in teaching the stages of Kolb's Experiential Learning Model (1984) and students were actively engaged throughout the lab activity. During the wrap-up reflection activity, several students commented it was one of their favorite parts of the Ag Discovery Program. Shipping materials to students that would tangibly put something in their hands and engage them in learning provided a positive learning environment.

The uncertainty surrounding the COVID-19 virus prevents USDA and staff from knowing how Ag Discovery will be delivered next year. This year's virtual conference proved to be an acceptable alternative. An additional byproduct of virtual format is a warehouse of videos that can be used by other faculty members throughout the year. In addition, the virtual tour of the universities agricultural facilities will be used for future outreach and recruitment activities. Hosting Ag Discovery virtually saved a tremendous amount of travel expense for participating students. However, additional equipment for videography and editing was purchased. Shipping program materials and leather kits were additional costs of the program.



HOW IT WORKS

Three faculty members and three students created the curriculum for daily lessons. The team helped facilitate all of the sessions by hosting live participants or by showing pre-recording lessons given by faculty members on campus. The live portions of the program included meetings with leadership from the Fresno State, Fresno County Farm Bureau and USDA. Representatives from United States Department of Agriculture (USDA) included the Animal Plant Health Inspection Service (APHIS), Investigative Services (IS) and Veterinary (VS) and Animal Care (AC).

For the innovate abstract, the lesson highlighted was titled, "Experiential Learning Through Leather Craft." The objective of the lesson was to teach students about experiential learning, as a teaching methodology, by utilizing leatherwork as a way to expose them to the four stages of Kolb's Experiential Learning Model (Kolb, 1984).

Part One of the lesson was a PowerPoint presentation that described the four stages of the Experiential Learning Cycles. Part Two of the lesson included video recordings produced in the instructor's leather shop detailing the different types of leather and tanning methods. Videos were also recorded outside demonstrating the types of leather used to produce horse and mule equipment. Part Three of the lesson was conducted live via zoom. A leather craft kit containing basic tools and six small projects was mailed to each of the students prior to program start. During the lab activity, the instructor demonstrated tooling various stamping patterns and students were able to duplicate the patterns at home on their own pieces of leather. Students were walked through each of the stages of the Experiential Learning Model (Kolb, 1984) as they completed six small leather projects.

REFERENCES

- Kolb, D. A. (1984). *Experiential Learning: Experience as the source of learning and development*. Upper Saddle River, NJ: Prentice Hall.
- Roberts, T. G. (2006). A philosophical examination of experiential learning theory for agricultural educators. *Journal of Agricultural Educators*, 47(1), 17- 29.