Leadership Development through Livestock SAEs: Using Near-Peer Groups to Build Students' Leadership and Animal Science Knowledge and Skills

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Introduction/Need for Innovation

"Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb (1984) asserted that knowledge is achieved when learners undergo experiences, and their understanding transformed. This innovation's need arose when James Madison High School (JMHS) was impacted by the COVID-19 pandemic. When the North East Independent School District (NEISD) of San Antonio, Texas went to virtual learning in March 2020, agriscience teachers at the district's Agriscience Magnet Program (AMP) planned for how to provide students with the experience of raising their livestock Supervised Agricultural Experience (SAE)projects on campus. Campolo et al. (2013) described near-peer teaching as an effective approachto teaching and learning where students separated by one or two years of experience teach each other. "[NPT] stimulates learning in a much less stressful environment and therefore becomes a more enjoyable educational experience" (Campolo et al., 2013, p. 6).

The Texas FFA Association (2021) describes SAE programs as "practical agricultural activities performed by students outside of scheduled classroom and laboratory time" (para. 1). It added that SAEs provide an opportunity for students in School-Based Agricultural Education (SBAE) to gain real-world experiences in agriculture. Furthermore, SAEs are mandatory for all students enrolled in an Agriculture Food and Natural Resources course in Texas. According to Cook (2015), Texas ranks first in the total number of livestock shows and youth participation in such. Students raising animals for exhibition at these livestock shows gain knowledge in selection, production, nutrition, and general animal husbandry. The AMP at JMHS provides a unique experience for students to engage in experiential learning while raising animal SAEs on campus for exhibition. The AMP facilities cover 22 acres of the JMHS campus with 65,000 square feet of housing in which to raise livestock projects including, lambs, goats, swine, cattle, poultry, and rabbits (Wieghat, 2011). Stewart (2021) described the two levels of livestock feeders as first-year novice feeders, also known as Junior Varsity (JV), and experienced feeders known as Varsity. He added that JV feeders purchase commercial quality animals to gain experience in raising and exhibiting livestock. These animals' final exhibition is the annual AMP Livestock Expo. After a JV feeder has been deemed a *proficient* or Varsity feeder, they buy show quality animals and compete in major livestock shows in their state. This tiered program experience gives families the opportunity to understand the financial and time commitments associated with raising livestock for exhibition before likely making a larger financial investment (Stewart, 2021).

How it Works

Due to the limited number of people allowed in the livestock center at one time, i.e., 10 or fewer, JV feeders were divided into eight groups, and each led by one Varsity feeder. To begin, the eight Varsity feeders met with the JV feeders and their parents to collect contact information. As a group, each decided what time worked best to feed in the evenings to answer any questions the JV feeders may have and to practice showmanship skills. They decided on a time and day to shear sheep periodically for practice livestock shows. The Varsity feeders met with the center supervisor (i.e., an agriscience teacher) weekly to reflect on their experience and to get guidance

on what information should be relayed to the JV feeders in the upcoming week. Varsity feeders were instructed to direct all health questions and concerns to the center supervisor immediately as well as any questions regarding feeding. During shearing, Varsity feeders assisted getting the JV feeders started and helped when needed, while they also sheared their own lambs. During evening feeding times, varsity members assisted with showmanship skills, exercising assistance, or answered any other questions their group members asked. The innovation was first introduced in the market lamb livestock center at the AMP during the Summer of 2020. The market lamb livestock center consisted of 34 Varsity feeders (two years or more experience) of which eight were designated as group leaders. Nineteen JV feeders (0 years of experience) were divided into eight groups of two or three and mentored by one Varsity feeder.

Results/Implications

When asked about their perception of the near-peer teaching program after the show season ended, students affirmed their appreciation for the it. Varsity members who served as group leaders were asked about their experience and skills gained. One student stated: "[the experience] definitely put me out of my comfort zone but helped me learn how to coach kids of various skill sets." Another said: "This experience not only gave our JV raisers a head start, but it also gave us senior raisers a great opportunity to step up and take on a leadership role and learn and grow. Overall, this program was a tremendous success." JV members were also asked about their experiences. One student said "the varsity feeders helped me get the hang of things in the barn. This experience not only taught me how to raise a lamb, but it also showed me the importance of teamwork and sportsmanship." Another JV raiser who advanced to the varsity level shared: "These groups really helped me, and this year I would say I feel pretty experienced even though I didn't get the normal experience," i.e., due to the COVID-19 pandemic. Results supported Campolo et al. (2013) assertion on near-peer teaching, and Kolb's (1984) views regarding experiential learning. Implications from this study could be expanded to SBAE teachers implementing near-peer groups in other areas of learning, including classroom and laboratory instruction, FFA, or to SAE contexts such as school gardens and greenhouses.

Advice to Others/Resources Needed

This innovation was born out of necessity due to the COVID-19 pandemic. Other SBAE teachers who manage livestock centers are encouraged to implement it. The innovation can be applied in all livestock centers regardless of species. Centers' supervisors should choose experienced feeders who work well with others and knowledgeable about all facets of raising the different species, including feeding, exercising, exhibiting, as well as animal health and welfare. The innovation should be provided as an example of SAE supervision involving students' leadership and animal science knowledge and skills development to preservice SBAE teachers during their preparation programs. Each group leader needed the telephone numbers and email addresses of the JV feeders they oversaw as well as their parents' contact information. An online scheduling software, Signup Genius, was used to assist with the scheduling of different events in the livestock center. An electronic sign-up form allowed for a no-contact way of scheduling. No costs were incurred by the livestock center or the feeders for this program other than the usual expenses associated with the students purchasing, caring for, and exhibiting their animals.

References

Campolo, M., Maritz, C., Thielman, G., & Packel, L. (2013). An evaluation of peer teaching across the curriculum: Student perspectives. *International Journal of Therapies and Rehabilitation Research*, *2*(1), 1-7. https://doi.org/10.5455/ijtrr.00000016

Cook, D. A. (2015). *A study to determine the influence of economics on the junior livestock show program in Texas* [Master's thesis, Texas A&M University]. https://oaktrust.library.tamu.edu/bitstream/handle/1969.1/156187/COOK-THESIS-2015.pdf?sequence=1&isAllowed=y

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall, Inc. http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf

Texas FFA Association. (2021). *Supervised agricultural experiences (SAE)*. Author. https://www.texasffa.org/sae

Stewart, D. (Host). (2021, April 20). 2021 AMP livestock expo informational presentation [Video]. YouTube. https://www.youtube.com/watch?v=5GOyPbIW4iM&t=254s

Wieghat, T. (2011, June 1). *James Madison AMP unveils new facility*. Texas FFA Association. https://www.texasffa.org/news/James-Madison-AMP-Unveils-New-Facility