

MooZOU Gallery for Kids; Exploring Beef's Benefits through Play-Based Learning  
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## **MooZOU Gallery for Kids; Exploring Beef's Benefits through Play-based Learning**

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

MooZOU Gallery for Kids is an educational mobile exhibit designed to help children and their adult caregivers learn about the benefits of beef through play-based learning. Play-based learning helps increase children's engagement and motivation to learn while supporting language development, social skills, and emotional development (Haoyue et al., 2024). It supports children's cognitive, social, and language development through exploration and interaction, and is an important component utilized in early childhood education (Pyle & Danniels, 2017).

Designed by undergraduate and master's students under the guidance of agricultural education and animal science faculty, this mobile exhibit highlights beef's role in a healthy diet while also sharing messages about the sustainability of beef production. As consumers become increasingly disconnected from agriculture, opportunities to help children learn about food production, nutrition, and sustainability are more important than ever. Agricultural literacy programs help young people develop informed perspectives about food production while increasing trust in agricultural systems (Hannah Joy et al., 2025).

### **How It Works**

Under the guidance of Agricultural Education and Animal Science faculty members, undergraduate and graduate students enrolled in capstone agricultural education and communications courses or problems hours have the opportunity to translate key messages about beef nutrition, production, and sustainability into hands-on, play-based learning experiences for children. Agricultural education-focused students develop educational materials and activity-based learning components, while students studying agricultural communications draft and refine written messaging for adult caregivers and young readers to ensure clarity, accessibility, and engagement.

Within the 40-foot mobile trailer, core exhibits anchor the experience, including a child-sized meat case and sales counter with 3-D printed beef cuts, frocks, and hair nets; a grilling station, and a magnetic refrigerator where children can plan balanced, protein-packed meals. Additional indoor stations include a "book barn" where children can read about beef, a carcass puzzle, and beef card games. Outdoor exhibits include large blocks for building cattle shelters, a feed trough ball pit, and a working head gate with messaging about cattle health. Together, these interchangeable exhibits create a flexible, immersive learning environment that reinforces agricultural literacy through play, movement, and exploration.

Each exhibit is designed to be interactive and targeted to a specific age range of children. Stations can be moved, rearranged, or configured based on geographical location, developmental level, audience size, and event needs. All stations include messaging written at a 5th grade reading level to support comprehension and knowledge retention.

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

MooZOU Gallery for Kids has demonstrated strong interest and engagement through a launch program held in spring 2026. A total of 541 visitors participated in the event, including 279 children and 262 adults. The trailer currently features ten interactive activities designed to engage children and families in agricultural learning. The launch provided an opportunity to observe participant interactions, assess the effectiveness of activities and exhibits, and gather informal feedback from families. The lessons learned from this initial event have been used to identify improvements to exhibit layout, activity flow, and participant engagement strategies. These findings will help strengthen the program and ensure an impactful experience as [Blinded] continues to expand and improve. Additionally, to date 35 students, individuals and businesses have contributed to the development of the project through support, collaboration, or resources.

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

MooZOU Gallery for Kids is preparing events all around the state, including fairs, extension events, agricultural showcases, local farm tours, and University of Missouri outreach programs. Exhibits will remain flexible and interchangeable to accommodate different audience ages and settings, allowing content to be adapted for family groups, school groups, and other youth audiences. University student facilitators will be trained prior to program delivery to ensure consistent messaging, effective engagement strategies, and safe, developmentally appropriate interactions with participants.

Successful implementation will rely on continued strong collaboration across multiple stakeholders, including industry partners such as the Missouri Beef Industry Council, university faculty and departments, student organizations, and Extension professionals. These partnerships will help ensure content accuracy, strengthen program relevance, and support statewide outreach efforts.

We are in the process of designing an evaluation that will capture not only numbers of participants and stakeholder involvement but also measure participant learning and long-term impact of MooZOU. We also plan to collect visitor feedback and track partnership outcomes, allowing for continuous improvement of the exhibits. Gathering evaluation data throughout implementation will be essential for demonstrating impact, informing future modifications, and supporting long-term sustainability of the program.

### **Cost/Resources Needed**

MooZOU Gallery for Kids was designed as a three-year project with funding allocated to support exhibit design, construction, educational materials, travel, and program evaluation. It is important to note that we had access to the pre-existing mobile unit through the Division of Animal Sciences. Those interested in developing mobile agricultural education units should consider human, institutional, and community support that extend beyond the project budget. The time needed to develop high-quality exhibits and communicate intentionally to both children and their adult caregivers should not be underestimated.

## References

- Hannah Joy, T., Isobel Violet, H., & Timothy Richard, C. (2025). The case for Urban Agriculture: Opportunities for sustainable development. *Urban Forestry & Urban Greening*, 128861. <https://doi.org/10.1016/j.ufug.2025.128861>
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- Pyle, A., & Danniels, E. (2017). *A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play*. *Early Education and Development*, 28, 274–289.