

Using *Pedigree: The Animal Breeding Boardgame* to Teach Recordkeeping Skills on AET

Laura Hasselquist
South Dakota State University

Lavyne Rada
University of Minnesota

Laura Hasselquist
Box 507, Wenona Hall 108
Brookings, SD 57006
laura.hasselquist@sdstate.edu

Introduction

Supervised Agricultural Experiences (SAE) are a part of a complete school based agricultural education program (Phipps et. al., 2008). In addition to the employability skills learned in the project, record keeping is another important skill developed through SAE. At South Dakota State University, students are required to take an FFA and SAE supervision course. One of the key assessments in the class is completing an SAE record book. Historically, this has been done with a premade data set provided by the instructor. The data set focused primarily on placement and did not include much entrepreneurial information. Program alumni reported they struggle the most with entrepreneurial record keeping. To better prepare future teachers, the data source for the record book assignment was changed. Instead of inputting static data, the students would collect realistic entrepreneurial data to complete their record books. *Pedigree: The Animal Breeding Boardgame* offered a chance to fulfill this need. The game allows students to develop a breeding operation for a one type of livestock species. During the game, the students must decide what animals to breed, what animals to cull, and what animals to keep while also paying and tracking costs associated with developing a herd or flock. An additional benefit of using *Pedigree* compared to other boardgames that feature the buying and selling of goods and services is that it is becoming a popular classroom resource amongst agriculture teachers within the state. It offers a unique experiential way to investigate livestock genetics and entrepreneurship.

How it Works

When starting the SAE portion of the class, each student is assigned a practice account in Agricultural Experience Tracker (AET). To help build their confidence, familiarity, and skills with AET, the students are asked to complete several of the practice sets available on the AET website. Once they have completed the practice sets, they are given a personal copy of *Pedigree* to play while also tracking their entrepreneurial decisions on a worksheet and eventually within AET.

Students begin the game with an equal value of breeding stock and cash on hand earned before enrolling in their first agriculture course. *Pedigree* is played in five rounds with each round representing a year, which allows the students complete a multi-year set of entrepreneurial records. Each year students make management decisions related to planning, animal health, marketing, breeding, and genetics while also maintaining records. The data collection worksheet is structured to help students identify important information to record where to record that information in AET, and building their entrepreneurship vocabulary. After the students have played each round of *Pedigree* and collected their data, it is then entered into AET. To assess if the students have completed the assignment correctly, they are asked to run specific reports and turn them into the instructor. While the numbers on each student's report slightly vary, there is enough similarity among them to determine if information is incomplete or incorrect.

Results to Date & Implications

Despite noting that the recordkeeping assignments were challenging, the students stated they enjoyed using the game. When compared to using an established dataset, they also felt

collecting data from the game was more realistic to what they would encounter in their future programs. The record reports they completed were of higher quality than before. Due to the requirements of having to play the game to collect data, the students were given more time to complete the record book assignment than previous years. Additionally, some students required extra support throughout the process. Some struggled with learning how to play the game while others struggled to record the information correctly.

Beyond the AET assignment, students continue to engage with the board game. Throughout the semester, it was not uncommon for students to remark on how often they played *Pedigree* with their friends, roommates, and families. One student even introduced the game to her agriculture teachers in another state. They found the game to be fun and engaging. Several even stated having it around helped them get through quarantine! Several students reported their student teaching placements have copies of the game. They have used it to teach a variety of topics including record keeping, genetics, breeding, and marketing.

Future Plans & Advice to Others

Pedigree will continue to be used in the FFA and SAE supervision course. More intentional modeling of how to use a game in the classroom will be done in future years. Additional discussion about what topics could be taught using *Pedigree* and other board games will be held. While not extremely complex, there are multiple steps in every round which can cause students to struggle with game directions and set up. In the future, there are plans to host a “*Pedigree* Game Night” where any interested agricultural education student can learn to play *Pedigree*, not just the students in the class. Links to “How to Play *Pedigree*” tutorial videos will be added to the course website. Time will be taken in class to play one example round with the students to ensure they understand the mechanics of the game. Finally, students should be encouraged to play the game at least once before attempting to collect SAE data. The students who struggled the most tried to collect data during the first time they played the game. Playing the game prior to collecting data helps the students become comfortable with the game mechanics, which makes it much easier to record the necessary data.

Costs & Resources Needed

This cost will vary based on the number of games purchased. University teacher education programs can request a free chapter account from AET. Boardgames can be purchased direct from the online retailer for \$65. Some local board game shops also carry them but at a slightly higher price. For this project, each student got a personal copy thanks to the generous support from South Dakota FFA Foundation. Investing in a few copies to create a game library for continued use would be a way to limit the initial investment in games. Each game can have up to four players.

References

Phipps, L.J., Osborne, E. W., Dyer, J. E. & Ball, A. (2008) *Handbook on agricultural education in public schools* (6th Edition). Delmar Cengage Learning.