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Building Cross-Disciplinary Market Research Projects as Experiential Learning: A Model Pairing Animal Science and Agricultural Economics

Introduction

Undergraduate students in agriculture and related disciplines are frequently taught about market research in the abstract, whether that involves reading case studies, reviewing published surveys, or discussing promotional strategy from textbooks. It is less common for instructors to ask students to conduct original market research from start to finish and rarer still to structure work so students from different disciplines must depend on one another's expertise. Yet the professional world these students will enter demands exactly this kind of collaboration. Each supply chain member must understand the intrinsic motivations of their upstream and downstream partners; this is crucial for adaptation and upward mobility.

This teaching tip describes an experiential learning project model in which an animal science class and an agricultural economics class jointly produce a market research study. The model has been piloted at the University of Tennessee at Martin with a project examining consumer perception of sheep and goat products in the Southeastern United States, and the architecture is designed to be adaptable to other commodity contexts, institutional sizes, and disciplinary pairings.

Project Architecture

The project rests on a simple division of labor that mirrors how applied market research actually proceeds. The animal science students serve as the subject-matter team, developing the information treatments that survey respondents will see. The agricultural economics students serve as the research design team. They build the survey instrument, administer it, analyze the data, write the results into a manuscript, and develop and present a poster. Neither group can succeed without the other's contribution.

In the sheep and goat pilot, the animal science class divided into teams, each responsible for a different product category. One team developed a complete brand identity for a goat dairy operation including a logo, mascot, cost-of-production analysis, and a fact sheet comparing goat milk and cow milk on nutritional dimensions such as digestibility, fatty acid profile, and prebiotic content. A second team produced a promotional fact sheet for goat meat, compiling comparative data on protein, cholesterol, saturated fat, and caloric content relative to beef and other red meats, along with a proposed advertising strategy targeting health-conscious younger consumers through social media. A third team created a comprehensive promotional treatment covering sheep as a "triple threat" – fiber, meat, and dairy – with slides detailing wool's ecological advantages, sheep milk's superior omega-3 profile, and the per-acre productivity advantages of sheep over cattle. A fourth team developed a broad goat-product

promotional piece with proposed slogans and an emphasis on environmental and health benefits.

These treatments were then handed off to the agricultural economics research methods class, which embedded them into a Qualtrics survey designed to measure whether and how exposure to the treatments shifted respondents' awareness, attitudes, and stated willingness to purchase sheep and goat products. The agricultural economics students were responsible for preparing a literature review, designing the survey, the sampling strategy, data collection, statistical analysis, and the production of two professional deliverables: a research manuscript structured for journal submission and a research poster suitable for conference presentation.

Pedagogical Rationale

The model's design addresses several learning objectives simultaneously. First, it provides authentic research experience akin to a research internship (Marsh et al., 2016), which is highly valuable to student learning (Kolb, 2014; Kuh, 2008; Tewari et al., 2024). Students are not analyzing pre-cleaned datasets or replicating published studies; they are generating original data on a question with a genuine knowledge gap. Consumer perception of sheep and goat products in the U.S. is, in fact, under-researched. Students quickly discover this when conducting their literature review, which reinforces the idea that their work has scholarly value.

Second, the cross-disciplinary structure strengthens rather than dilutes disciplinary identity. Animal science students are not asked to become economists; they are asked to do what animal scientists do. They share production data, nutritional science, and commodity knowledge, providing it in a format that serves a research purpose. Agricultural economics students are not asked to become animal scientists; they rely on the treatments as given and focus on research design, econometric specification, and professional writing. Each group's contribution is visible and necessary, which creates mutual accountability that purely within-class group projects often lack.

Third, the deliverable structure scaffolds research skills across multiple output types. The animal science students produce marketing material (e.g., branding, logos, slogans, and fact sheets) that requires them to think about audience, persuasion, and visual communication, perhaps in a way that reflects the way economists think. The agricultural economics students produce a manuscript and poster, learning the conventions of academic writing and research presentation, but also learning more about the scope of work conducted by animal scientists. Together, the project covers the full pipeline from knowledge synthesis to promotional design to empirical evaluation. Immersive, complete experiential learning opportunities like this are an important pedagogical component of agricultural education (Roberts, 2006).

Practical Guidance for Implementation

Instructors considering this model should attend to several design choices. The commodity or product category should be one where a legitimate research gap exists, so that students feel the work is meaningful rather than performative. While that should always be a goal, it is particularly crucial to garner buy-in across groups for a project of this scope. Sheep and goat products work well because U.S. consumer research on these products is thin, but analogous projects could be built around specialty crops, alternative proteins, value-added local foods, or agritourism services.

Timing and coordination between the two classes require deliberate planning. The animal science class should begin developing treatments early in the semester so that finished

materials can be delivered to the agricultural economics class with enough lead time for survey design, IRB review if required, data collection, and analysis. In our pilot, we found that building a shared timeline with explicit handoff dates was essential. In fact, we initially tried to incorporate a graphic design course to create high-quality advertisements, but our timeline did not match theirs.

The information treatments themselves are a rich site for learning. Animal science students must move beyond summarizing facts and instead think about what a consumer needs to hear, in what format, and at what level of complexity. The pilot produced treatments ranging from simple fact sheets to branded company identities to multi-slide presentations. This variation is pedagogically valuable on its own, as it gives the agricultural economics class different treatment modalities to embed in the survey and later compare for effectiveness.

On the agricultural economics side, instructors should resist the temptation to over-scaffold the manuscript and poster. The pilot manuscript, for instance, was delivered with placeholder sections, internal notes, and unfinished data analysis (artifacts of a true work in progress that allowed the instructor to coach students through revision rather than simply grade a polished final product). Treating the manuscript as a living document across the semester teaches students that research writing is iterative, not a one-shot performance. Using a tracking system like Google Docs allows the instructor to monitor where students are contributing as well as areas of concern on a granular, student-by-student basis.

The model is deliberately flexible. The disciplinary pairing need not be animal science and agricultural economics; horticulture and agribusiness, food science and marketing, or agricultural communications and crop science could work equally well. The key structural requirement is that one group produces the content to be tested and the other designs and executes the test. The model is also scalable: at smaller institutions, the two “groups” might be halves of a single class; at larger ones, multiple sections could work on parallel product categories within a shared survey instrument. A natural extension is to carry the project across semesters. giving students the experience of contributing to a longer scholarly arc, which is a reality of research that single-semester projects rarely capture.

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Submitted by:

Anthony Delmond, and Diana Watson
The University of Tennessee at Martin
Martin, TN