Actionable Strategies for Conducting Evaluations in a Multi-Institutional, Multi-Disciplinary Project: Lessons Learned from a SAS-CEA Project

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Introduction / Need for Innovation or Idea

Agricultural educators, Extension professionals, and communication faculty are increasingly invited to participate in large-scale, multi-institutional, multi-disciplinary agricultural research projects. While these collaborations offer rich opportunities for interdisciplinary innovation, they also present practical challenges for educators and evaluators, such as navigating complex institutional structures, establishing their role within technical teams, aligning goals across disciplines, and sustaining engagement over multi-year timelines (Cheng et al., 2025). These challenges are particularly pronounced in multi-institutional USDA-NIFA-funded projects that bring together diverse areas of expertise, including plant sciences, engineering, water technology, economics, and extension education.

The five-year Sustainable Agricultural Systems for Controlled Environment Agriculture (SAS-CEA) project, led by four land-grant universities and multiple stakeholder groups, addresses saline water use in CEA platforms. From the inception, members of agricultural education and evaluation team identified recurring barriers to effective collaboration: fragmented communication, disciplinary silos, role ambiguity, and absence of shared planning tools. Recognizing these as obstacles to both project implementation and outcomes, the team initiated several strategies to improve cross-disciplinary communication, coordination, and collaboration. This abstract describes the initiated strategies, their implementation, and key lessons learned for project team members and evaluators working in complex, interdisciplinary environments.

How It Works

The strategies shared in this project emerged through iterative problem-solving during the first two years of SAS-CEA implementation. We took a practitioner-oriented approach grounded in formative evaluation, participatory reflection, and collaborative facilitation. The following key practices were implemented:

1. Timely Team and Project Meetings: Regular monthly meetings were scheduled for the overall project and interdisciplinary sub-teams. These meetings created intentional spaces to share updates, align on deliverables, and address emerging cross-disciplinary questions. These meetings served as venues for building relationships, addressing implementation challenges, and obtaining better insights into each other's work.
2. Shared Documentation Templates: Project members consistently shared meeting agendas, action items, and progress reports in a shared OneDrive folder. These documents improved transparency and provided interdisciplinary teams across institutions with a clearer understanding of ongoing project activities.
3. Reflective Debriefing Interviews: As part of formative evaluation efforts, evaluation team members used predetermined interview prompts to identify bottlenecks and implementation gaps to promote transparency.

4. Reporting Evaluation Findings: Evaluation findings were periodically shared in project meetings to ensure that all team members stay updated about implementation status and challenges across teams. In addition, reports created opportunities to discuss next steps and proactively document program impact.

These strategies were not mandated by the project director, but emerged organically as practical solutions to the challenges. Further, they strengthened the collaborative project environment without requiring major additional resources or structural changes (Henson et al., 2020).

Results to Date / Implications

As a result of implementing these realistic strategies, several key improvements were observed:

- Teams began documenting project activities and progress more systematically, which supported internal learning and accountability.
- Team members reported greater clarity in roles and expectations, particularly the interdisciplinary tasks.
- Cross-disciplinary discussions improved, enabling better alignment of timelines, goals, and deliverables. More importantly, the non-social scientists in the project recognized the importance of evaluation in documenting outcomes and were actively involved in the evaluation work.
- These strategies helped evaluators make mid-course suggestions for improving project implementation and supported more efficient and accurate reporting to the USDA.

These findings offer key insights into fostering inclusive, collaborative project environments through intentional facilitation, clear communication, and the use of practical strategies.

Future Plans / Advice to Others

In the future, we recommend that new multi-disciplinary teams hold an orientation meeting to define shared goals and clarify roles. Teams could also assign voluntary program managers to coordinate oversight responsibilities. The evaluation team of a project should take an active role in conducting formative evaluations to help identify challenges and support continuous improvement throughout project implementation and thereby enhancing project fidelity.

Costs / Resources Needed

All strategies described required minimal financial investment. Tools used, such as Qualtrics, OneDrive, and Zoom, were freely available via university licenses. The main resource was time: approximately 10 hours per month from a graduate assistant or program manager to synthesize updates, manage shared resources, and prepare summary reports. These roles could also be supported by undergraduate interns or part-time staff in Extension units or project administration.

References

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