

Addendum
to
On the Other Side of Complexity:
The McKnight Foundation's Collaborative Crop Research Program
Michael Quinn Patton and Jane Maland Cady

This addendum elaborates on and makes clarifications to The McKnight Foundation Collaborative Crop Research Program case based on questions that emerged during the initial case teaching on September 28, 2017, Evaluation Roundtable, Rockefeller Foundation, NYC.

Additional Background and Introduction

In 1993, McKnight created a plant biology program that funded nine cross-cultural partnerships between U.S. scientists and scientists in Asia, South America, and Africa to stimulate research on neglected crops. In the ensuing two decades, the program developed into the Collaborative Crop Research Program (CCRP) and expanded to 70 research projects addressing the food crisis in four of the most hunger-challenged regions in the world: West Africa, Southern Africa, Eastern Africa, and the Andes. The program evolved to focus on small scale farmers and agricultural researchers in 12 countries working with 24 different crops addressing solutions across the agricultural spectrum – from breeding to agronomy to markets to food preparation to storage to post-harvest value-addition. Over time, the program's evolution flowed from accumulating experience and knowledge, engaging in systematic reflective practice about what was being learned, and strategic priority-setting based on the program's deepened understanding of its niche and comparative advantage in supporting agricultural development among smallholder farmers.

McKnight's overarching crop research goal is to improve farm management by working with smallholder farmers to increase productivity, enhance livelihoods, and improve nutrition and food security. CCRP concentrates on improving locally important but under-researched crops such as tef, quinoa, fonio, amaranth, and others. For example, through research into the devastating bacterial crop disease "banana wilt," CCRP helped farmers control the disease's spread by up to 95% in Kenya and over 80% in Uganda pilot sites. By supporting collaborative innovation processes in agriculture at the project level, important partnerships between community members, farmers, researchers, and other professionals develop, strengthening capacity in each region to nurture and sustain farmer-centered agricultural research.

The Evolution of CCRP

CCRP began as a focused crop research program (plant breeding and agronomy). With the arrival of Jane Maland Cady at The McKnight Foundation, it evolved into a more comprehensive, systems change-oriented agroecological intensification program. That transition expanded the scope of research to take into account the whole farm operation including human labor factors, gender relations, markets, and

nutrition. This transition meant that there was a period when the program included grantees funded under the prior commodity program protocols, while new grantees and new grantmaking was developing based on systems analysis and agroecological principles. Instead of ending the prior crop research program and beginning a new agroecological program, the program transitioned and evolved. This meant a decade of innovation, transition, capacity building, shared learning, and reconceptualization of the nature of the program. Developing the program in these new directions is what made developmental evaluation (describe below) appropriate. *A key teaching point concerns the evaluation implications of CCRP's innovative and developmental trajectory – and the learning required to support adaptations and decision-making along the way.*

Developmental Evaluation

The case refers to using a developmental evaluation (DE) approach, but what that means is not defined in the case. The case teaching also revealed that not everyone understands the niche, purpose, and principles of DE. Because DE is central to the CCRP's evaluation approach, a brief elaboration of DE is in order.

Developmental evaluation provides evaluative information and feedback to social innovators, and their funders and supporters, to inform the adaptive development of change initiatives in complex dynamic environments. DE brings to innovation and adaptation the processes of asking evaluative questions, applying evaluation logic, and gathering and reporting evaluative data to inform and support the development of innovative programs, initiatives, and/or systems change efforts with timely feedback.

DE supports innovative development. The developmental evaluator becomes part of the collaboration team supporting ongoing adaptation, innovation, decision-making, and learning. This is quite different from traditional formative and summative approaches to evaluation, which are often delivered as midterm and end-of-project reviews and reports. DE involves ongoing engagement of the developmental evaluator with the program team and, in this case, with communities of practice. Thus, the nature of the evaluation is matched to the nature of the program, *a key case teaching point.*

It is important to understand that the program co-director, Jane Maland Cady, with The McKnight Foundation, was highly knowledgeable about developmental evaluation and made a deliberate and informed choice that developmental evaluation was the appropriate approach for CCRP. She did so, in collaboration with her co-director, Rebecca Nelson, who learned about developmental evaluation with other leadership team members, all of whom agreed that it was appropriate for the innovative and developmental nature of CCRP. Marah Moore, the evaluator, brought (and continues to bring) expertise in DE to the program. The depth and nature of the shared understandings and expertise of Jane Maland Cady and Marah Moore are illustrated by and documented in an article they wrote on the developmental evaluation nature of the CCRP evaluation, which was published in a book on exemplars of developmental evaluation (Patton, McKegg, Wehepeihana, 2016). *A key teaching point concerns the implications (and importance) of the program leadership and program evaluator all understanding the niche and nature of DE.*

The Role of the Developmental Evaluator

In the Collaborative Crop Research Program, collaboration was a fundamental principle. The developmental evaluator participated in the leadership team and regular deliberations with the program co-directors, and facilitated reflective practice in the communities of practice. In this sense, and this is a matter of controversy in the profession of evaluation generally, the developmental evaluator is not an independent, external observer. Nor is the developmental evaluator an internal evaluator within the organization. *Rather, the developmental evaluator is part of the collaboration, fully engaged in collaborative reflection, learning, and decision-making processes, and supporting the work of those processes through timely data collection and feedback. A key teaching point is drawing out the role of the developmental evaluator in supporting strategic learning, a role played as a collaboration team member.*

Principles-based Program and Principles-focused Evaluation

Principles provide coherence in the face of diversity and complexity. CCRP exemplifies diversity and complexity, thus the importance of principles. Here's a review of why coherence is a challenge.

With more than 70 research projects focused on two dozen different crops in 12 countries across two continents, CCRP addresses a wide range of systems challenges. Each of the four geographic areas where CCRP is involved has a unique research focus. Projects in the Andes are designed to improve the livelihoods of people, households, and communities in Bolivia, Ecuador, and Peru by targeting crops and cropping systems important to Andean food security, such as quinoa and lupin. Research on millet and sorghum-based systems in West Africa focuses on improving food security for small farmers in Burkina Faso, Mali, and Niger. Projects in Southern Africa focus on increasing the integration of edible legumes into the cropping systems of Malawi, Mozambique, and Tanzania. The work in Eastern Africa and the Horn of Africa aims to improve crop productivity, marketing, and utilization to improve the livelihoods and nutrition of people in Uganda, Kenya, and Ethiopia, particularly those depending on under-researched crops of regional significance.

Each of the four areas has a regional team consisting of a regional representative, a liaison scientist, and a research methods specialist. The regional teams make grants that support research and provide grantees access to program-wide practices and capacity-building resources and technical assistance. The overall global program is coordinated and supported by a cross-regional leadership team and two program co-directors.

In 2014, with the theory of change well-conceptualized, the Symon MIS system in operation, and agroecological intensification emerging as the overall CCRP approach, Michael Patton began facilitating a process of generating guiding principles. Jane Maland Cady and Marah Moore, as part of their expertise in the nature and focus of developmental evaluation, had been involved with Patton in the emergence of principles-focused evaluation. Draft principles were developed and shared with the communities of practice. At the annual leadership meeting, the draft principles were reviewed and

revised, and taken back to the communities of practice. And in 2017, at the annual leadership team meeting, the principles were reviewed, revised, and agreed to, thus becoming the overarching framework for how CCRP goes about its work.

The CCRP principles are in the case appendix. The process for developing the principles was featured as an exemplar in the Patton book on *Principles-Focused Evaluation: The GUIDE* (Guilford Press, 2018). The principles provide coherence to the program and have become an important strategic resource as the program navigates complexities and works in different parts of the world with people with diverse backgrounds. Jane Maland Cady said at the case teaching panel debrief, “Developing the principles was a major milestone and breakthrough for the program.” CCRP principles are divided into overarching principles and operating principles. CCRP was a pioneer in using this approach to capture both the overarching vision and core CCRP elements, as well as detailed operating procedure principles to inform ongoing work.

Principles-focused evaluation involves assessing the meaningfulness of principles, adherence to them, and what results from following them. In each of these areas of evaluation, learning opportunities emerge and what is learned provides guidance for adaptation. *A key teaching question is why principles emerged as important for learning and evaluation in CCRP, and exploring what the relationship is between developmental evaluation and principles-focused evaluation within the overall umbrella of utilization-focused evaluation.*

Conceptual Developments

The developmental evaluation (and developmental evaluator) played an important supportive role in facilitating, clarifying, documenting, and adapting major conceptualizations of the program. The program theory of change was developed through the skilled facilitation of the developmental evaluator, which involved online webinars and work at all levels in the program over a period of years. The theory of change has remained a living, adaptable framework as the program has developed and evolved.

The emergent developmental evaluation approach and evaluation team collaborated in supporting several other conceptual developments in the program that have evolved since 2008 and continue to develop:

- Capacity-building support for development of project-level theories of change;
- A complex adaptive systems approach to analyzing agricultural development needs and systems change intervention strategies;
- Work on integrating social and technical innovations;
- Incorporating gender analysis into projects;
- Conceptualizing and adopting the agroecological intensification (AEI) approach as a basis for understanding and improving smallholder farmer production systems;
- Technical support at the project level to increase the quality of farmer-researcher collaborative and participatory research designs;
- Designing research to generate options by context that would support contextualized scaling;

- A focus on farmer research networks for increasing impact;
- Enhanced evaluation at the project level and cross-project synthesis studies;
- Principles to guide the work and provide cross-program coherence.

These diverse program development initiatives involved people at the project, regional, and leadership team levels, as well as consultants and resource personnel with specialized knowledge to help guide them. Developmental evaluation was a source of coherence and support in monitoring and assessing implementation of these developments.

A good example of a major conceptual development was what it means to take a systems approach. This involved developmental evaluation facilitation and engagement, as did issues of social-technical integration, identifying leverage opportunities, articulating pathways of change, formulating agroecological principles, and conceptual work on the overarching program principles. The systems approach also involved specialized principles for program subareas including CCRP research, the integrated monitoring and evaluation approach (IMEP), farmer research networks, and agroecological intensification priorities. In these cases, the developmental evaluator helped by drafting conceptual documents and graphic displays, gathering data about the reactions to the conceptualizations from communities of interest and leadership team members, and participating in revising the frameworks and conceptualizations as they evolved. This role in helping define CCRP was an important developmental evaluation function. *A key teaching case point concerns the role of conceptual development in a complex and evolving initiative like CCRP – and the role and contribution of DE to that conceptual development.*

Learning in CCRP

Learning in CCRP was not viewed as a product to be produced, such as generating a “Lessons Learned Report.” Nor was learning viewed as an activity undertaken only periodically or episodically. Learning was embedded throughout all aspects of CCRP on an ongoing basis. Learning and evaluation were conceptualized and implemented in an interdependent and mutually reinforcing manner. At the panel that concluded the original case teaching, developmental evaluator Marah Moore explained: “Evaluation doesn't take priority over learning, and learning doesn't take priority over evaluation. The two are entirely integrated and mutually reinforcing in all aspects of the integrated monitoring and evaluation system. Thus, learning and evaluation are not in tension in developmental evaluation. They are not competing priorities. I want to emphasize that evaluation and learning are fully integrated, which is why it is called IMEP: *Integrated Monitoring, Evaluation, and Planning.*” Evaluation is integrated to support and enhance learning, adaptive action, and decision-making.

CCRP Decision-making

The nature of the collaboration involved providing opportunities for participants at any and all levels – from projects to communities of interest to the overall leadership level – to bring forward issues, ideas, and conceptualizations. These would be framed, discussed, reviewed, and adapted as appropriate and needed. No votes were taken to formalize decisions. Rather, issues were processed in a way that was

transparent, inclusive, and ownership-building. Rather than officially adopting positions – for example, on the theory of change or on what it means to engage in agroecological intensification – emergent positions would be identified, introduced, clarified, and discussed. Then the program would live with a level of ambiguity for some time as people gained experience with the ideas being developed and implemented. For example, in developing the CCRP principles, there was never a vote by the leadership team or a formal decision taken by the co-directors that CCRP’s eight overarching principles and corresponding operating principles were official. The principles emerged and were understood to be agreed-to, in principle, over a three-year period. They still get reviewed and revisited in every leadership meeting, and will be revised as needed. *A key teaching point concerns the implications of this kind of emergent decision-making for learning and evaluation.*

Evaluation Reporting

The developmental evaluation and program staff have begun producing CCRP development summaries for the leadership team based on patterns and trends extrapolated from Symon, synopses of exemplary programs in the regions, and conceptual developments that emerged as the program evolved. Cross-cutting case studies were commissioned and conducted independently as enough work had taken place to make a synthesis across projects meaningful and useful. But there was no formal reporting template or timeline, except the end-of-grant report to the Gates Foundation. The board has no standardized reporting requirement nor does The McKnight Foundation require a particular kind of reporting for routine accountability. The issue of what data to provide and how to draw conclusions for further deliberation is highly contextual, and depends on the overall agenda of leadership team meetings. This fits with The McKnight Foundation's policy that evaluation reporting should not be a compliance activity, but should be done as needed to support program development and decision-making. *A key teaching point concerns the implications of this approach to reporting for learning and evaluation.*

Technical Assistance Collaboration

The addition of the research support team referred to in a footnote in the case also illustrates CCRP’s commitment to collaboration and learning. Initially brought on board to help improve the quality of research in CCRP grants and projects, the research technical assistance process became developmental and collaborative in that the research team developed new procedures and protocols, like inception workshops and design frameworks. The researchers, as participants in the collaboration, built methodological capacity to engage in agroecological research. Given these important responsibilities, the research team, although contracted as technical assistance providers, were integrated into and became part of the collaboration. The research technical assistance team members participated fully in the annual weeklong leadership meetings and in deliberations between meetings as strategic and tactical decisions were made. The development of contextual scaling, options by context, the principles of agroecological intensification, and the principles and approaches of farmer research networks were all influenced by the active engagement of the researchers from the University of Reading in CCRP. *A key teaching question concerns how to use technical assistance providers as learning partners and co-creators.*

Board Member Involvement

The McKnight Foundation board members participated in annual CCRP leadership meetings, as well as in site visits to regional program meetings and project sites. In the weeklong annual leadership team meetings, the participating board members observed CCRP's nitty-gritty and often messy decision-making processes. They witnessed the trials and tribulations of the intensive conceptual clarification work of leadership team members. They participated in small group discussions. They observed firsthand how some 30 different people from the four regions, and people with different levels of responsibility throughout the CCRP structure, engaged with each other collaboratively. The board members, therefore, had a deep understanding of CCRP and the collaborative processes undertaken for clarifying ambiguities, discussing and debating alternative directions, and the challenges of defining terms and reaching agreement on the fundamental elements of the theory of change and pathways of change. In short, the board knew firsthand how the program was unfolding, how decisions were being made, and the challenges projects and communities of practice faced. They did not rely on (or receive) detailed evaluation reports about these matters. *A key teaching point is how such in-depth board involvement affects learning and evaluation.*

Roles and Relationship of the Program Co-directors

Rebecca Nelson, CCRP's scientific research director at the overall program level, and Jane Maland Cady, The McKnight Foundation international programs director, formed a strong partnership. These two leaders have different styles and varying opinions about many things, which required negotiation. They both demonstrated the capacity to put personal differences aside to draw on the strengths of program participants. They stayed focused on the importance of the work, and developed communication and decision-making processes that were the foundation of the program's collaborative style. *A key teaching question concerns the role of program leadership in modeling learning and evaluation use.*

Advisory Council Committee

CCRP established an advisory council of experts in agricultural development who participated in the week-long annual leadership team meeting. They provided independent commentary on whatever issues were being discussed. In the 2017 leadership team meeting, the advisory council played a significant role in advocating that CCRP explicitly commit to agroecological intensification as the overarching framework for the program. *A key teaching point concerns what role the advisory council played in CCRP strategic development, evaluation, and learning.* (Note: There are sufficient details in the case to fully document this role, so teaching facilitation can invite speculation about the potential value added by yet another collaborative group.)