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Innovating Methods of Agricultural Development Research and Practice

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Abstract

As we race towards 2030, the target date for achieving the U.N. Sustainable Development Goals, it is critical that we examine our approaches to agricultural development research and practice. We should not expect extraordinary results by using the approaches we have always used. Rather, we must innovate. To that end, *Advancements in Agricultural Development* held a Symposium on Methods of Agricultural Development Research and Practice in October 2023 on the University of Reading campus, co-hosted by the School of Agriculture, Policy and Development. We invited recognized experts from around the world to develop papers focused on innovative methods of agricultural development practice or innovative methods of agricultural development research. We had ten papers presented that were authored by 26 researchers representing 13 universities/research institutes in 6 countries. Sixteen authors attended the symposium to present their papers. A healthy dialogue followed each presentation to help authors refine their papers, resulting in the articles published in this special issue. A summary of each article is provided.

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Introduction

As we race towards 2030, the target date for achieving the U.N. Sustainable Development Goals, it is critical that we examine our approaches to agricultural development research and practice. We should not expect extraordinary results by using the approaches we have always used. Rather, we must innovate. To that end, *Advancements in Agricultural Development* held a Symposium on Methods of Agricultural Development Research and Practice in October 2023 on the University of Reading campus, co-hosted by the School of Agriculture, Policy and Development. We invited recognized experts from around the world to develop papers focused on innovative methods of agricultural development practice or innovative methods of agricultural development research. We had ten papers presented that were authored by 26 researchers representing 13 universities/research institutes in six countries. Sixteen authors attended the symposium to present their papers. A healthy dialogue followed each presentation to help authors refine their papers, resulting in the articles published in this special issue. A summary of each article is provided below.

Methods of Agricultural Development Practice

Girado et al. (2024) shared an innovative approach for participatory climate services called Participatory Integrated Climate Services for Agriculture (PICSA). Using data from a case study in Honduras, they outlined a series of steps that can be tailored to meet individual farmers' needs. They highlight the strengths and limitations of their approach and discuss how it can be applied in other contexts.

Rodriguez et al. (2024) outlined a participatory approach for gender analyses. Citing work they conducted in Honduras, this team of researchers contrasts their transformative approach to the typical extractive approaches used by many gender researchers. They show how their approach integrates critical perspectives, participatory methods, and systems thinking. They discuss how development practitioners can apply their methodology in other settings.

Gorman and Kinsella (2024) shared an innovative approach for preparing agricultural development practitioners in Ireland. They described their approach to determining the necessary competencies and then building a graduate degree program based on those competencies, the Masters in Agricultural Innovation Support (MAIS). They share data showing the efficacy of their approach and discuss how their model may be applicable in other contexts.

Greig et al. (2024) described how virtual reality technologies can be used by educators in agricultural development efforts. They outlined a Virtual Reality Facilitation, Application, Reflection, and Measurement (VRFARM) process that holistically addresses the teaching and learning process. Their model describes the educator’s role in facilitating learning, how this model can be applied, and how learning can be assessed. They close the article with recommendations for how educators and development practitioners can use their model.

Chowdhury et al. (2024) conducted a scoping review to find solutions to address misinformation in agrifood systems. Their findings revealed the value of participatory approaches across many sectors. They concluded that Farmer Field Schools are a valuable, participatory tool for combatting misinformation. They close by proposing a handful of unanswered questions that agricultural development researchers should address.

Methods of Agricultural Development Research

Narine and Harder (2024) presented an expansion of the Ranked Discrepancy Model, originally designed for assessing competency training needs, to enable the analysis of any repeated measures needs assessment data. They provide practical tools, including Microsoft Excel examples, so agricultural development researchers without access to expensive statistical software can easily apply the RDM. Narine and Harder provide a discussion and examples of data visualization to improve practitioners' ability to make decisions with needs assessment results.

Roberts (2024) presented a novel approach to applying Q methodology with marginalized populations. In his approach, he shares how using a visual Q methodology can give access, power, and voice to people who might otherwise be voiceless due to their inability to read the language researchers use. He describes six principles that researchers can apply to implement visual Q methodology. He concludes by discussing how this approach can be used with other research methods to triangulate results.

Baker et al. (2024) shared how researchers in agricultural development can use continuous response measurement (CRM) systems to assess real-time perceptions of messages. They discuss in-person and virtual applications of this methodology in quantitative and qualitative research approaches. They also discuss data management and analysis. Baker et al. close by offering a variety of ways this can be applied in different contexts.

Lindner and Lindner (2024) propose a novel approach to interpreting Likert-type scales. They begin with a philosophical discussion about the underlying math associated with this kind of data. They then argue that researchers should establish ranges and labels for interpreting scale means *a priori*. They also provide an approach for calculating and interpreting nonstandardized effect sizes. They close by offering recommendations for how researchers can apply their approach.

Conclusions and Discussion

Several themes emerged from the presentations at the symposium. Participants all echoed the value of gathering to discuss topics like this and the *willingness of participants to share their perspectives*. Agricultural development researchers and practitioners should *challenge the status quo* and look for opportunities for innovation. Most authors argued that there is no one-size-fits-all approach; instead, there should be *intentionality in selecting development and research methods*. Researchers and practitioners should *simultaneously consider the macro and*

micro contexts, meaning *adaptable methods* are more valuable than fixed approaches. All authors recognized the importance of *participatory approaches* and the *importance of partnerships and teams*.

We hope the methods presented in this special issue give agricultural development researchers and practitioners new ideas about how to do their work. We welcome submissions of articles to *Advancements in Agricultural Development* that test or apply the methods in this special issue so that we can continually refine our practices. We wish to thank the authors who contributed to this special issue.

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