



# Designing for effectiveness and inclusivity in video-enabled agricultural extension

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[github.com/bjvca/maizeUG](https://github.com/bjvca/maizeUG)



AEARCTR-0002153



CGIAR Collaborative Platform for Gender Research  
Annual Scientific Conference and Capacity Development Workshop  
**September 25-28, 2018, Addis Ababa, Ethiopia.**



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# Introduction

- Poor people often lack critical pieces of information, fail to notice, or believe things that are not true => Sub-optimal decision making (Banerjee and Duflo, 2011; Hanna et al., 2014; Dupas, 2011)
  - In agriculture: Information => adoption behavior & outcomes (Jack, 2013)
  
- => Simply providing information can have substantial impact on outcomes!
  
- **BUT: Seemingly small design attributes – framing, source, target - can make a big difference in effectiveness and inclusivity of information campaigns**

## Research objective

We focus on the role of 2 **gender** related design attributes:

- gender (composition) of the **messenger(s)**
- gender (composition) of the **recipient(s)**

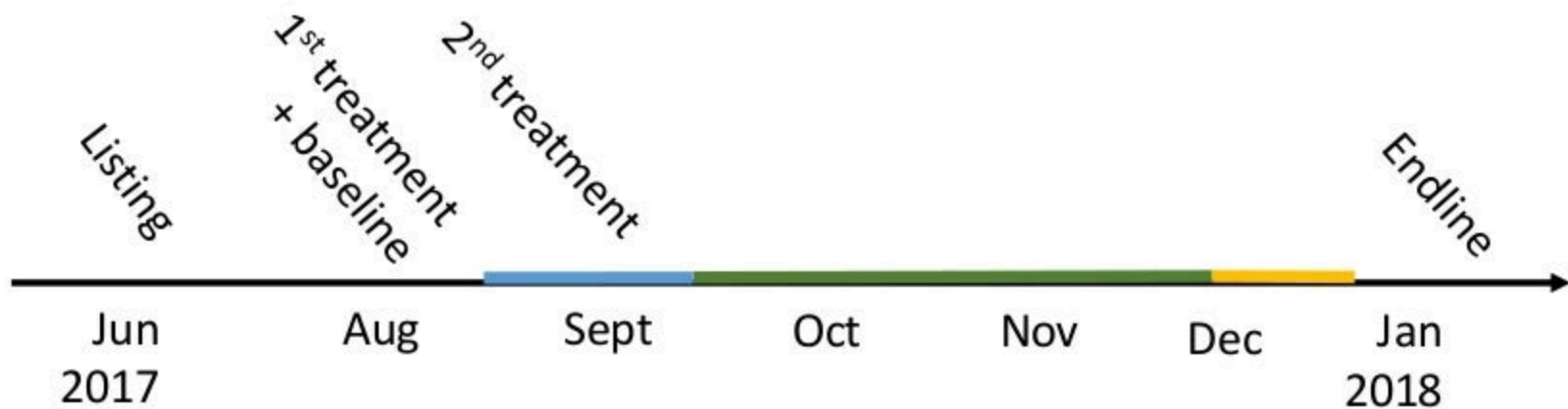
in making agricultural extension information campaigns more effective and inclusive among smallholder farm households.

# Experimental design: 3<sup>2</sup> factorial design

		Messenger		
		Male	Female	Couple
Recipient	Male	385	385	369
	Female	385	385	369
	Couple	342	342	369

## Context: Agricultural extension information campaign to increase adoption among maize farmers in Uganda

- Maize: key staple and cash crop in region
- Low yields and substantial gender yield gap (20 percent)
- Almost no technology adoption, especially on women managed plots.
- Limited extension access, and severely male biased.



# Treatments

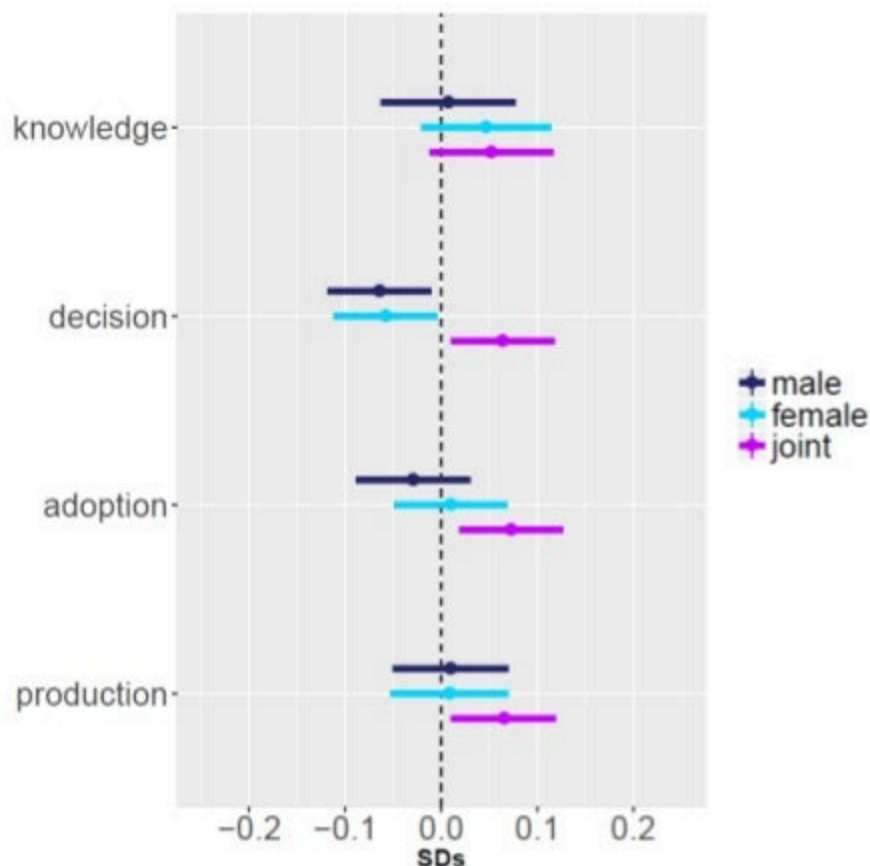


## Outcomes

- **Knowledge:** index based on 4 multiple choice questions
- **Decision making:** index based on 10 decisions, such when to start planting, what spacing to use, which fertilizer to use, what seed to use,...
- **Adoption:** index based on 10 technologies and practices, such as timely planting, 2x1 spacing and 1 seed, inorganic fertilizer use, improved seed use,...
- **Production:** index based on productivity (kg/acre) and a subjective measure of productivity
- **Outcomes disaggregated:** male co-head, female co-head, and joint (male and female co-head together)

# H1 results: Effect of reducing intra-HH information asymmetry (*recipient = couple*) – (*recipient = male or female*)

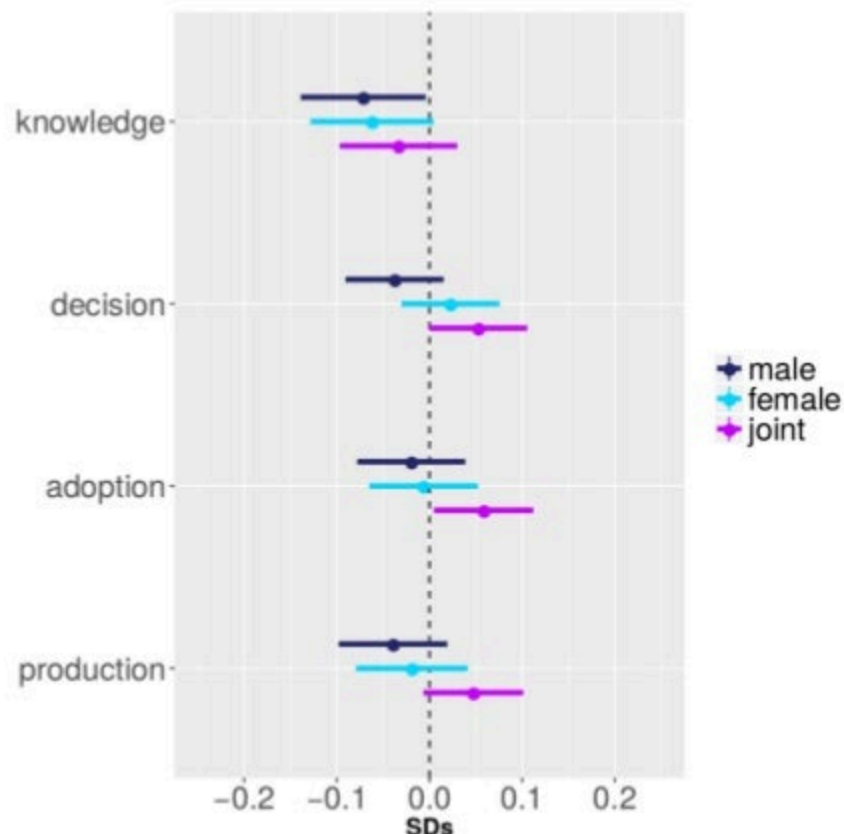
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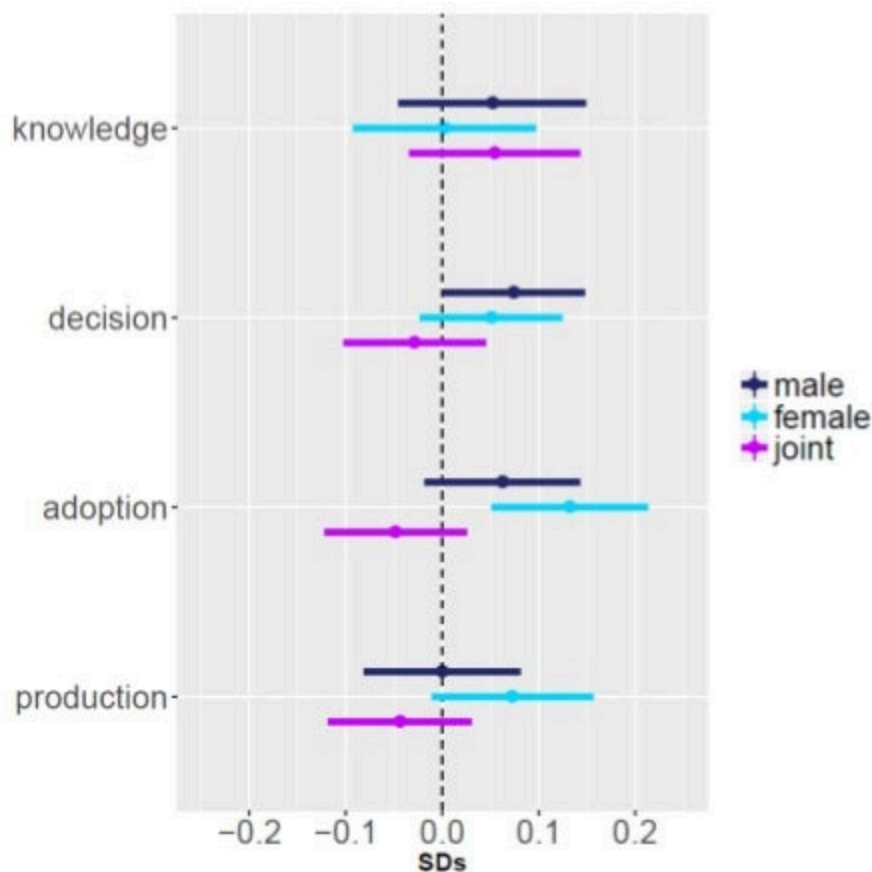
## H2 results: Effect of priming a cooperative approach (*messenger = couple*) – (*messenger = individual*)

		Messenger		
		Male	Female	couple
Recipient	Male	385	385	369
	Female	385	385	369
	Couple	342	342	369



### H3 results: Effect of gender homophily (*messenger = recipient*) – (*messenger ≠ recipient*)

		Messenger			
		Male	Female	Couple	
Recipient	Male	385	385	369	
	Female	385	385	369	
	Couple	342	342	369	



# Summary of results

- **Gender attribute make a substantial difference in effectiveness and especially inclusivity:**
  1. Reducing information asymmetry => more joint decision-making, adoption and productivity
  2. Promoting a cooperative approach to farming => more joint decision-making and adoption
  3. Gender homophily is important for adoption under women management
- **Video = cost effective**
  - High returns to a low-cost intervention: 2.5 US per household lead to almost 10 US more produced



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