Understanding the "how" of Adaptive Learning

Three practical tools to inform and improve implementation

GEIS 2018 Melbourne

24 October, 2018



Session Presenters



Luke Heinkel

Rigorous monitoring in

India



Erin Fletcher

Applied research* in refugee camps in Tanzania



Cammie Lee

Rapid experimentation in

East Africa





Rigorous Monitoring in Concept

Near-real time data that partners can use to make decisions

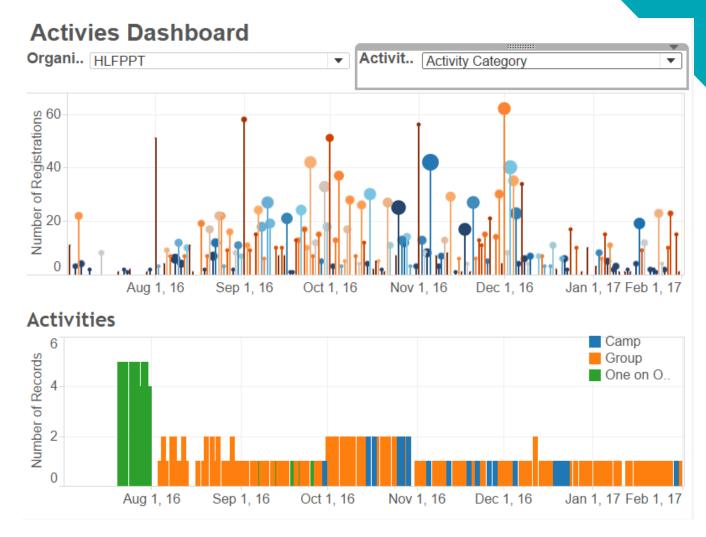
- When it is working well:
 - Implementers know how they are performing against expectations
 - Implementers know how to use the information to improve their work
- Tools include:
 - Data dashboards
 - Data visualizations
 - Dedicated M&E specialist(s)



Rigorous Monitoring in Practice

Read to Kids pilot in India

- Goal: Get parents to read to their children to build early literacy skills
- Activities: Group or 1-on-1, reading on mobile phones
- **Outcomes:** Continued usage of phones for reading
- **Learning:** Group activities were more effective than 1on-1, in some contexts





Group activities were more effective than one-on-one...

...but it depended on the context

- Peer pressure was needed when working in new contexts
- Individual communication works well when your reputation is strong
- In all cases, follow-ups were key
 - 4 visits to 1 person > 1 visit to 4 people



Lessons Learned from Rigorous Monitoring

- Ground presence was key to data quality
- Data cleaning and visualization is resource intensive,
 - Good for a pilot, but difficult to sustain
- Implementers were thirsty for these data, even when the news was bad
- Prioritize time for data sharing and action planning





Applied Research in Concept

How can existing theory/research be put into practice?

- Implementers working in low-information environments
- Emerging research suggests avenues for behavioral change
- Applied research identifies
 - Descriptive statistics
 - Potential Interventions
 - Spaces amenable to Interventions



Applied Research in Practice

Social Norms of Violence in Nyarugusu Refugees Camp

- Implementers have a mandate to provide education in camps
- Tasked with student safety in/around schools
- Growing body of evidence that social norms may guide behavior
- But, little information on either behaviors or norms
- So, how to describe social norms?
- Use survey experiments and visual scales to measure social norms on descriptive level



Social Norms around Violence have a strong intergenerational component

Parents' and Children's Perceptions of Reporting Norms are highly correlated

- Kids more likely to report violence when parents say the same
- Large portion of "unexplained" variation can be explained by family fixed effects
- Some differences: Kids do not distinguish levels of violence like parents do



Lessons Learned from Applied Research

Existing Theoretical Evidence Should be Contextualized

- Use Vignettes, List Experiments & Visual Scales to Measure Social Norms
- Mixed Methods: Qualitative Research informs Quantitative Research
- Work with Implementers and local populations to ensure research:
 - Answers relevant questions
 - Is context-sensitive
 - Identifies pathways for future work





Rapid Experimentation in Concept

Implementing an unproven intervention at a small scale, usually over a short amount of time

Goals that are in-scope

- Testing for the acceptability and feasibility of an intervention
- Trying out different approaches to the intervention to answer questions about its design

Goals that are *out-of-scope*

- Conducting a study that is rigorous
- Proving that something works



Rapid Experimentation in Practice: Tanzania pneumonia program

Objective: understand **feasibility** of different intervention designs and their **potential to improve pneumonia-related knowledge** amongst Tanzanian public healthcare providers

Activities: tested three interventions in 39 public health facilities over one month

- Held focus groups at the start
- Experimented with different variants of interventions clinical mentoring, mobile messaging, and visual aids
- Measured knowledge in a low-touch manner with a short pre- and post-test
- Complemented knowledge tests with surveys that included qualitative questions on acceptability



Interventions are feasible, healthcare providers' learning is possible with interventions, and we have evidence to guide changes to intervention designs

Providers knew more about pneumonia at the end of the intervention

- Providers started with little knowledge
- Able to answer twice as many questions correctly on knowledge test
- There were similar gains in knowledge across interventions



Lessons Learned from Rapid Experimentation

- Learnings on intervention design content and delivery:
 - *Mentoring:* Able to conduct sessions remotely; case scenarios added value
 - Mobile messages: Images preferred vs. text; consistent engagement in "2-way plus response" mode
 - Visual aids: More orientation is needed for visual aids and there are questions about usage
- Learnings for measurement at next level of rigor
 - **More robust assessment of provider knowledge** levels required including knowledge decay point
 - Greater understanding of impact on provider behavior needed

The design of interventions can be improved through rapid experimentation before testing them at a larger, more resourceintensive, scale with greater rigor



Iteration based on formative research

Intervention design (content and delivery)

- Mentoring: Able to conduct sessions remotely; case scenarios added value
- Mobile messages: Images preferred vs. text; consistent engagement in "2-way plus response" mode
- Visual aids: More orientation is needed for visual aids and there are questions about usage

Measurement

- More robust assessment of provider knowledge levels required including knowledge decay point
- Greater understanding of impact on provider behavior needed

The design of interventions can be improved through rapid experimentation before testing them at a larger, more resource-intensive, scale with greater rigor



Discussion

We welcome your questions!



THANKS FOR LISTENING

CONTACT US

EMAIL

clee@r4d.org
efletcher@r4d.org
lheinkel@r4d.org





Discussion Questions

- How do you decide when to use each of these tools? Can you use them in combination?
- This sounds a lot like consulting, but it also sounds like evaluation. Which is it?
- It is difficult to see how adaptive learning 'fits' within the framework of funding implementers and then funding impact evaluations to understand results. Does adaptive learning require a whole new approach for donors?
- What types of partners make a good or bad match for adaptive learning?
- For an organization like yours, with limited field presence, what do you do to 'shorten the distance?'
- [Take audience questions]

