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Realist Evaluation: A Systems Approach for Understanding and Assessing Complex Social Programs

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Realist Evaluation

A systems approach for understanding and evaluating complex social programs

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Introduction

- Research Assistant Professor RRI / SSW
- SysSci alum! WooT!
- Public health / services intervention research
- Community-based participatory research approach
- Disability justice advocate / framing
- Science for social change!

(A few of) My Projects

AASPIRE

- Academic Autism Spectrum Partnership In Research and Education (AASPIRE)
  - AASPIRE Healthcare Toolkit
  - Autism and Skilled Employment intervention
- Early Assessment and Support Alliance (EASA) Connections

EASA Connections

What Is Intervention Research?

Research to explore, develop, and test programs designed to affect specified outcomes

- Could be straight forward: Research to explore, develop, and test a medication to reduce blood sugar levels
- Could be very complex: Research to explore, develop, and test a program to improve long-term career outcomes for autistic professionals
- Either way: using science to do a thing to change the world ☺

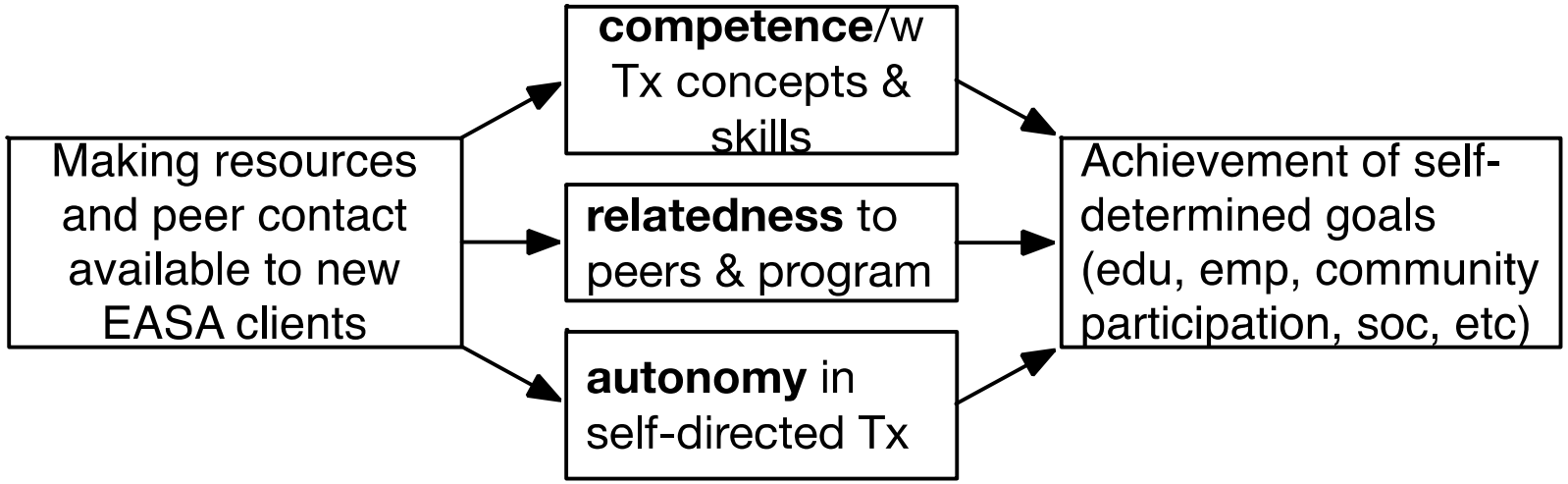
Classical Approaches to Intervention Research

Theories of Change and Logic Models

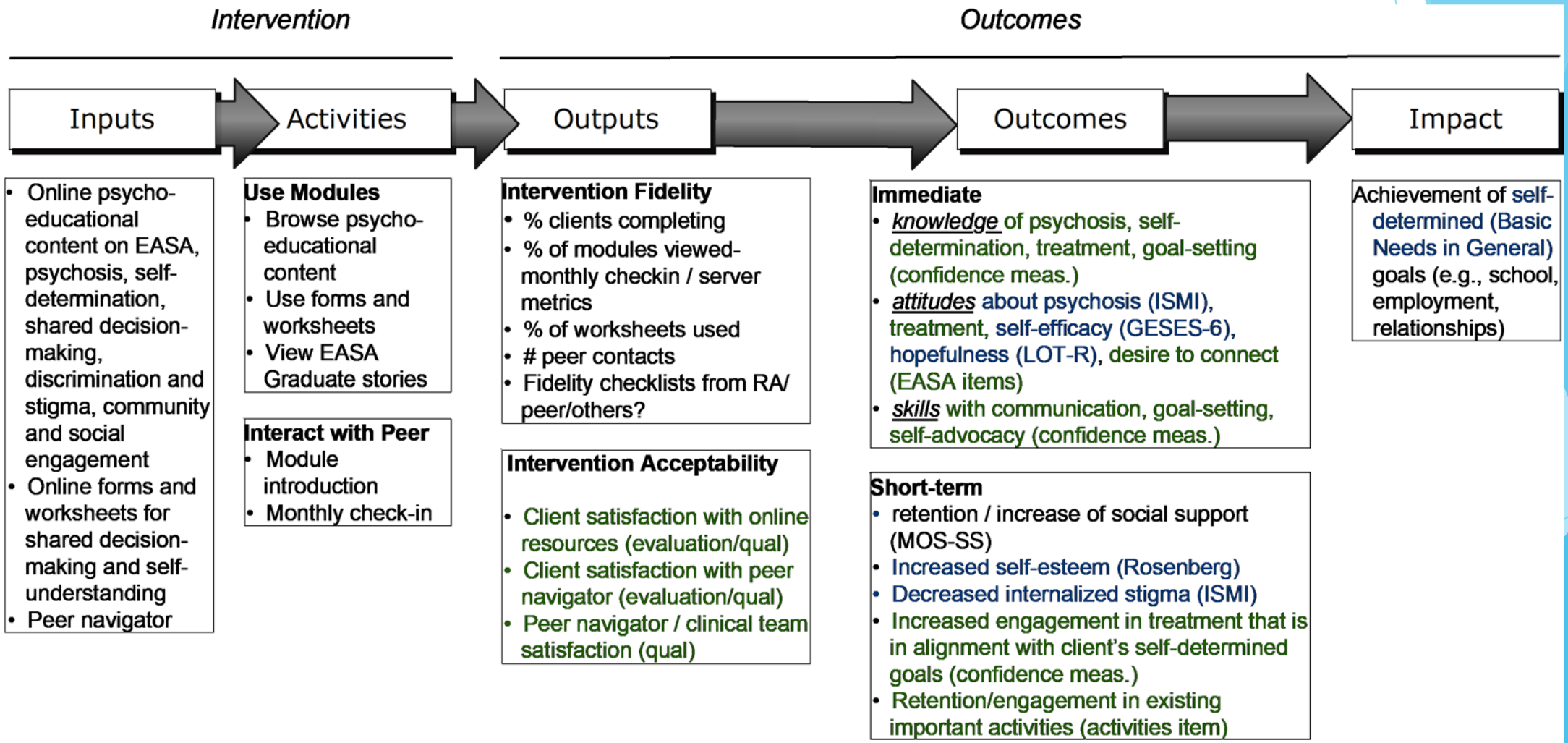
Change Model

Logic Model

Change Model EASA Connections



Logic Model EASA Connections



Pilot Testing

- Create program based on theory of change
- See if it's possible to do (feasible) and people like it (acceptable)
- Test data collection protocols, fidelity, outcome measures, prepare for larger trial to determine efficacy
- Often mixed-methods
- May use pre/post type study design to test instruments, get broad sketches of information
- Do we think this is looking like it might work?

Efficacy Testing / Randomized Control Trials

- Did the program change the specified outcomes under controlled conditions?
- Outcome measures
- Compare to a population otherwise similar that did not receive the intervention to determine statistical differences in outcomes
- Randomized control trial (RTC) considered strong evidence
- Statistical aggregation of results
- Makes sense for a research question like “does the medication reduce blood sugar levels”

Some issues With Classical Approaches in Complex Social Programs

- Real-world implementation is MESSY
  - Conditions can't be controlled
  - Conditions can be a moving target
  - Contamination is difficult to avoid
  - Influences are multiple and may be difficult to tease out / not applicable to everyone in the target population
  - Feedbacks!
- Issues with aggregation (every intervention is effective for *someone*)
- Issues with measurement and measuring complex / subjective constructs
- (there are multiple approaches to help with some of these but today--)

Realist Evaluation

Realist Evaluation Asks

Not

“What works?”

but

“What works for whom in what circumstances and why?”

A Non-Dichotomous Paradigm for Evaluation

- Traditional approaches to intervention evaluation evaluate positive results (it was feasible, it was acceptable, it was effective) versus negative results (it was not feasible, it was not acceptable, it was not effective)
- The realist approach tests an intervention to understand how its structure, contexts, and mechanisms lead to various outcomes, in order to better target populations and/or create more effective programs – it evaluates the results

Assumptions and Framework

An intervention is an idea someone(s) has for creating change: a theory that we can use scientific method to test

An intervention exists within a larger social context

The results of an intervention are created by the active relationship between the intervention participants and the intervention resources

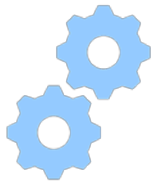
Interventions are open systems – they are actively entangled with their environment and all is constantly changing

Components of a Realist Evaluation

MECHANISMS

CONTEXTS

OUTCOMES

Mechanisms 

- What about the program do we theorize will bring about an effect?
- Mechanisms are the processes by which participants interact with the intervention
- Interventions don't "work"—the resources and protocols of the intervention in conjunction with participation are what "work"
- There will be many of these!

Mechanisms Example (from Pawson & Tilley)

Intervention: Improve classroom attentiveness with a breakfast club

- M1 – extra nutrition
- M2 – prevent misbehaving before class
- M3 – burn off activity and energy
- M4 – make school seem less stiff and formal
- M5 – give teachers more time to prepare
- M6 – enable parents to connect with school staff

Contexts

- In what conditions is the program operating?
- Contexts are the relevant circumstances affecting the intervention
- They may facilitate or hinder (or both, depending)
- There will be many of these!

Contexts Example (loosely from Pawson & Tilley)

Intervention: Improve post-prison outcomes through a prisoner education program

- C1 – tired of being in prison
- C2 – having future aspirations
- C3 – culture of the prisoners
- C4 – culture of the guards
- C5 – having a stable home outside of prison
- C6 – culture of the outside community
- C7 – general social attitudes toward ex-prisoners

Outcomes 

- Contexts and mechanisms are multiple, so one expects multiple outcomes
- Not connected to pass/fail outcome measures
- “Outcome patterns” – intended and unintended consequences of the intervention based on combinations of contexts and mechanisms
- Provides a more nuanced understanding of the intervention’s results

Outcomes Examples (from Pawson & Tilley)

Intervention: CCTV to reduce crime in parking lots

- O1 – people spend less time in parking lots
- O2 – crime rate in parking lots falls
  - O3 – but not at busy times
  - O4 – only at slow times

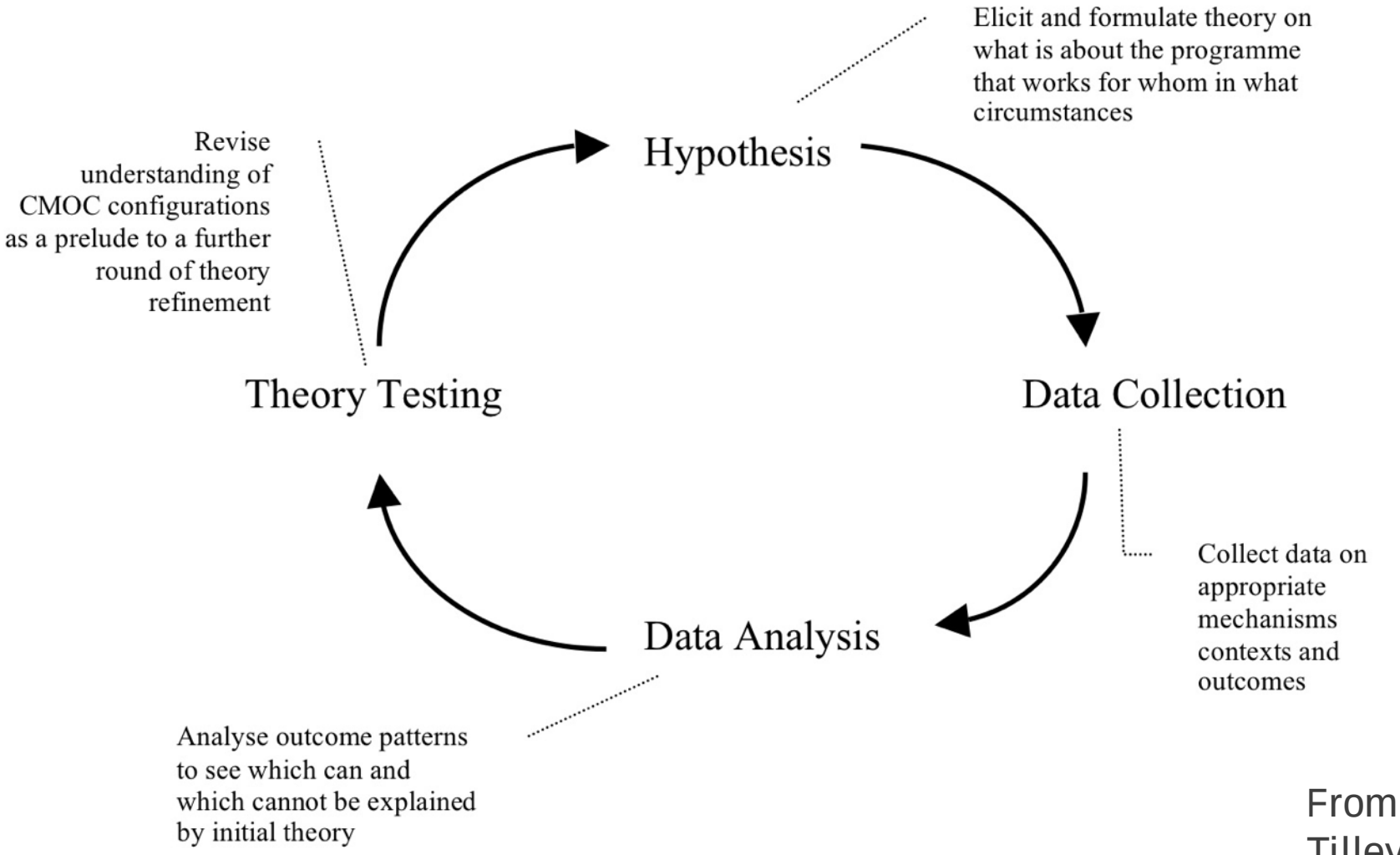
Context-Mechanism-Outcome (CMO) Models

- A model for how interventions activate mechanisms within contexts to generate outcomes
- Answers “what works for whom and in what conditions?”
- Mechanism and context variation to predict or explain outcomes
- Realist evaluation empirically tests CMOs
- “The sign of a good evaluation is that it is able to explain the complex signature of the outcomes.” (Pawson, quoting Mark et al, 2000)

Realist Research Methods

- Regular old science applies!
- Mixed methods may be particularly well-suited for realist evaluation's research question of what works for whom under what conditions
  - General advice – choice of research methods should be tied to research question and what sorts of questions the method can answer
- Study design can include rival theories to the intervention in order to understand what's happening
  - But within limits—need to draw the boundaries around the system of interest somewhere!

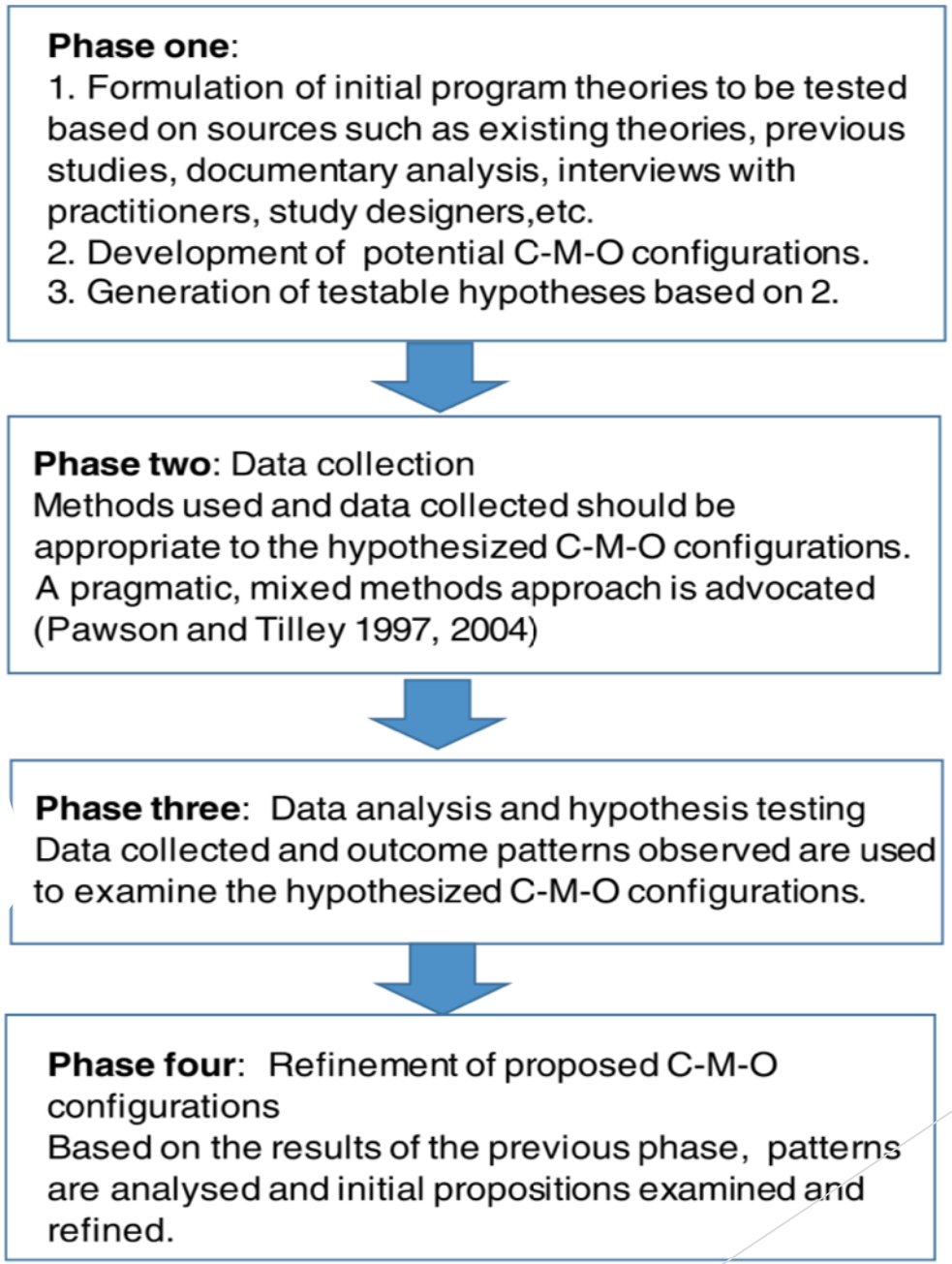
Evaluation as Hypothesis Testing



From Pawson & Tilley

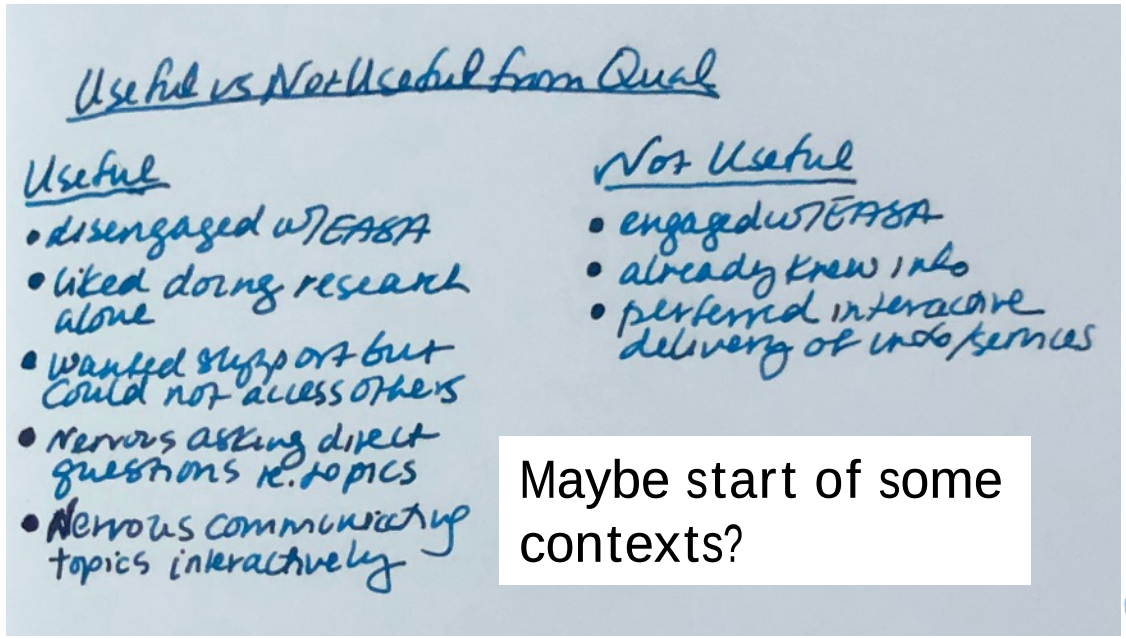
Realist Evaluation Cycle

- Iterative refinement and understanding of theory (intervention)
- Diagram from *Using realist evaluation to open the black box of knowledge translation: a state-of-the-art review*. Salter and Kothari Implementation Science 2014, 9:115 http://www.implementationscience.com/content/9/1/115



1 Phases of the realist evaluation cycle.

What Works for Whom Under What Conditions?



Maybe start of some contexts?

Mechanisms?

- Peer navigator contact
- Relatableness of peer voice in content
- Anytime resource delivery
- User-control of interactions with resources
- Shareability of content

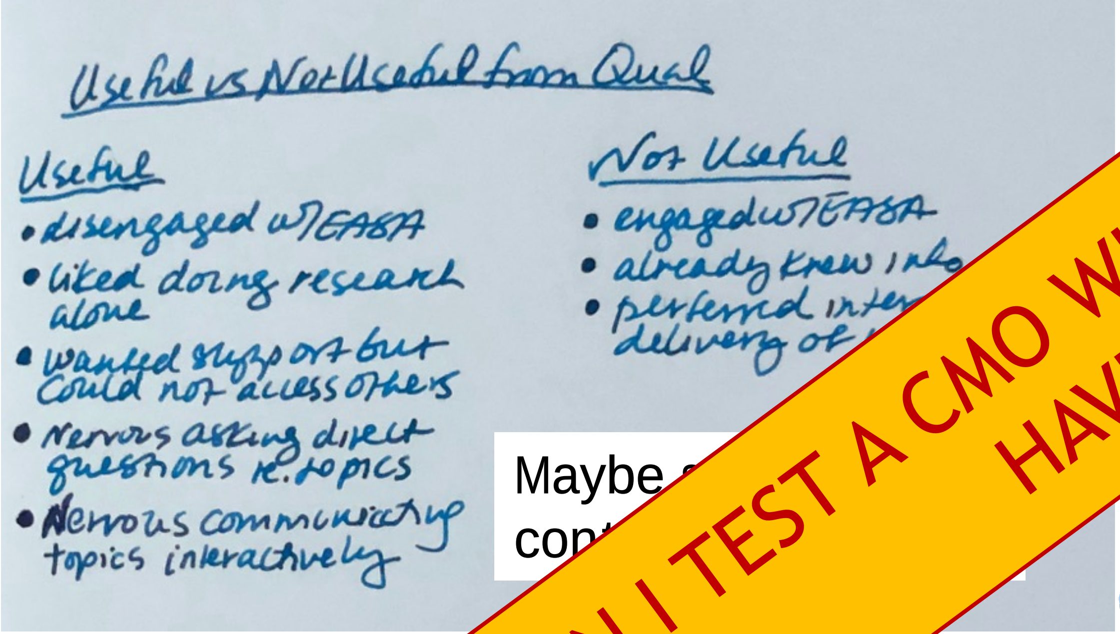
...?

EASA Connections

Outcomes

O1 – acceptability of intervention; O2 – subjective/objective reduction in internalized stigma; O3 – connection to peers; 04 – subjective/objective increase in hopefulness ...?

What Works for Whom Under What Conditions?



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…?

CAN I TEST A CMO WITH THE DATA I HAVE?

EASA Connections

Outcomes

O1 – acceptability o tervention; O2 – subjective/objective reduction in internalized stigma; O3 – connection to peers; 04 – subjective/objective increase in hopefulness …?

Strengths

- Strong explanatory capability
- Ability to understand and refine interventions to better target them or to better meet specific needs
- Doesn't sacrifice so many potentially important details in aggregation; avoids problems of "one size fits all" solutions
- May present a more useful set of findings for real-world social service interventions
- Is a useful tool in systems thinking for understanding generative structures (IMO), and comes from a systems perspective

Limitations and Considerations

- Doing a straight-forward drug trial type study? You may not need it, or it may not be appropriate.
- Complex to conceptualize and implement (but we like that kind of thing, right?)
- Does not give a definitive universal answer to “does it work” – classical approaches are designed for that
- Gives instead complex answers (but we like that, too, right?)
- Not very well known in the US (yet?)

Discussion

Discussion

- Dora Raymaker draymake@pdx.edu www.doraraymaker.com
- Thank you to Anna Rockhill and the PSU Realist Evaluation Study Group!!
- Realist Resources
  - The RAMESES Project https://www.ramesesproject.org/Standards_and_Training_materials.php
  - Realist Evaluation Pawson & Tilley http://www.communitymatters.com.au/RE_chapter.pdf
  - Nutshell: https://www.betterevaluation.org/en/approach/realist_evaluation
  - 14 minute overview https://vimeo.com/84215487
  - Hour long webinar https://www.youtube.com/watch?v=1OAo_0DCG7k&feature=youtu.be
  - PSU Realist Evaluation Study Group! Next meeting 2/11