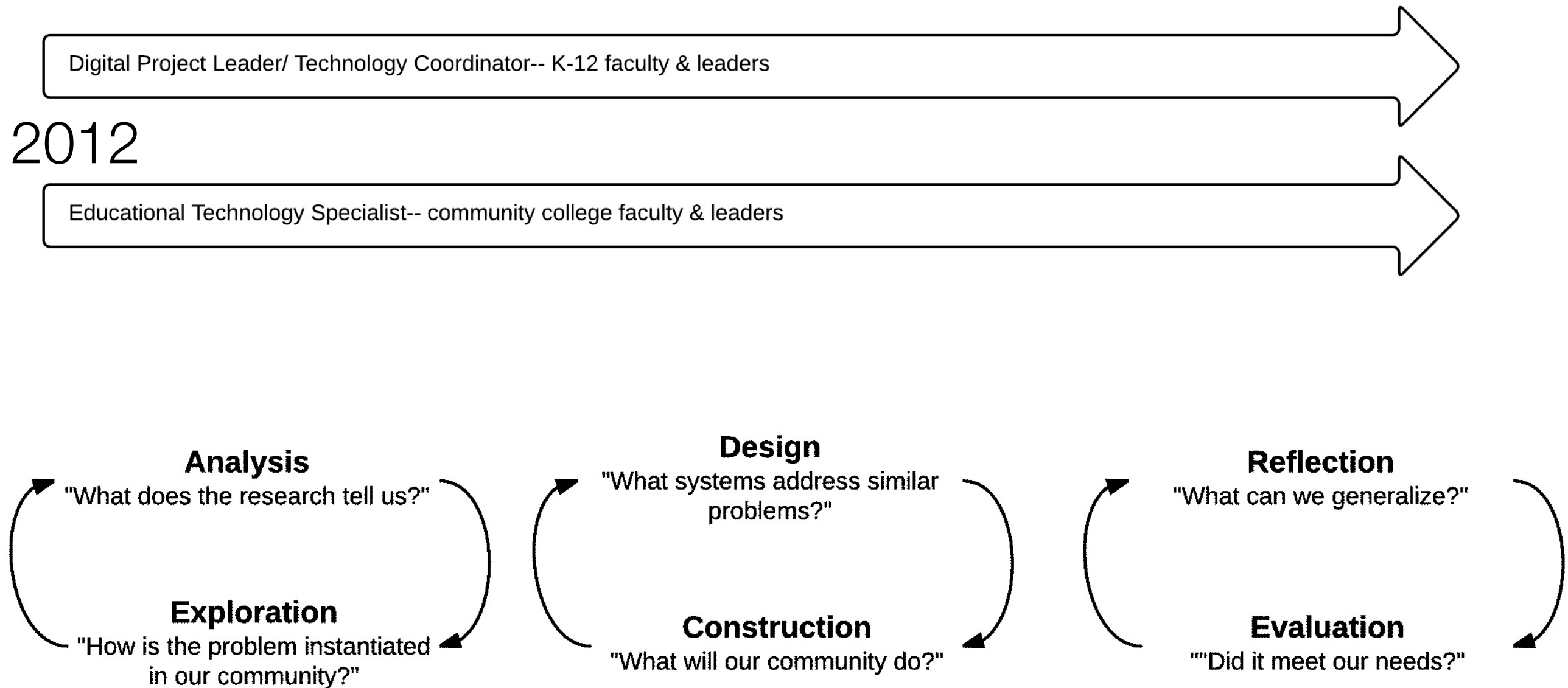# Planning and Leading for Innovative Technology

Dr. Gary Ackerman
Adjunct Faculty, Mount Wachusett Community College

@garyackermanphd
gary.hackscience.net@gmail.com
http://www.hackscience.net

The Story of the Data- 1 of 3

Digital Project Leader/ Technology Coordinator-- K-12 faculty & leaders

2012

Educational Technology Specialist-- community college faculty & leaders

Analysis
"What does the research tell us?"

Exploration
"How is the problem instantiated in our community?"

Design
"What systems address similar problems?"

Construction
"What will our community do?"
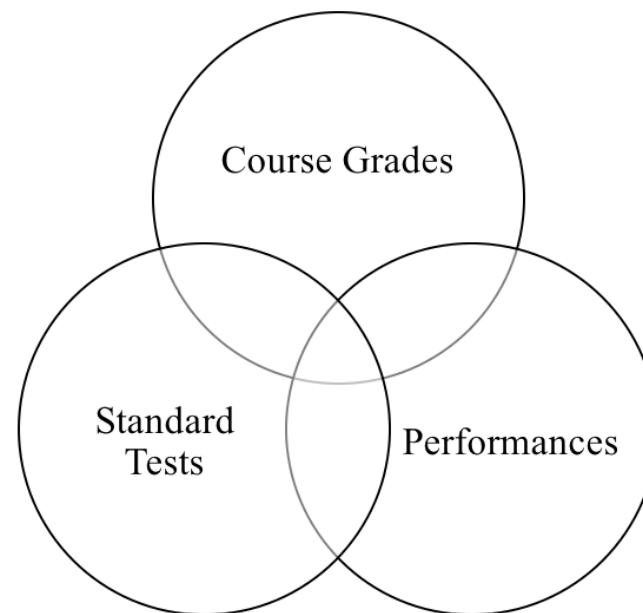
Reflection
"What can we generalize?"

Evaluation
""Did it meet our needs?"

McKenney, S., & Reeves, T. (2012). *Conducting educational design research*. New York: Routledge.

See this blog post…
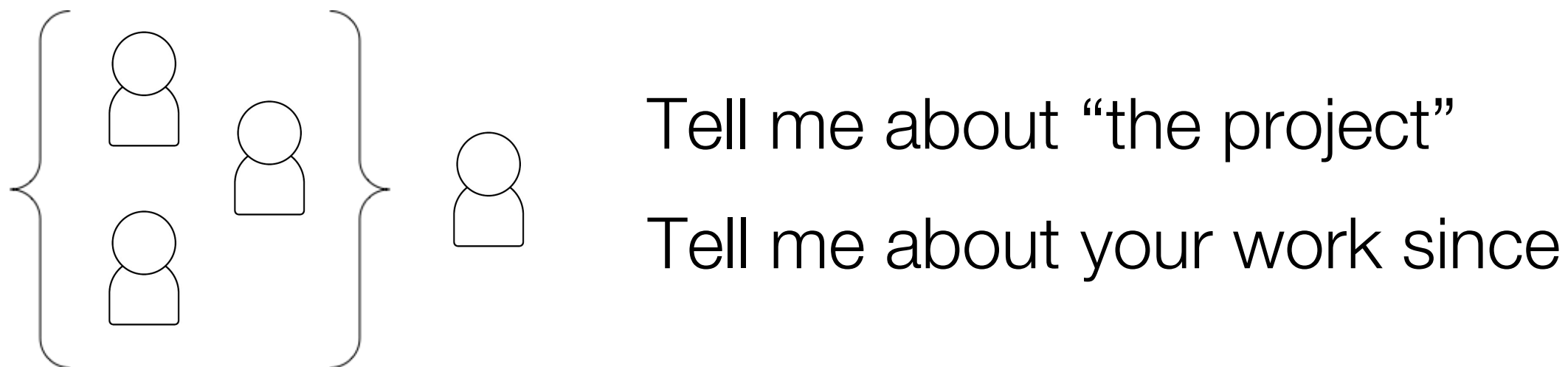
- Technology in Support of Diverse Assessment
  [presentation](#) - [paper](#)

- Open Source Learning in Rural Communities
  [chapter](#)

- Qualitative Data

- Failed to Meet Inclusion Criteria/ Unpublished

- "Decision-Making"

Tell me about "the project"

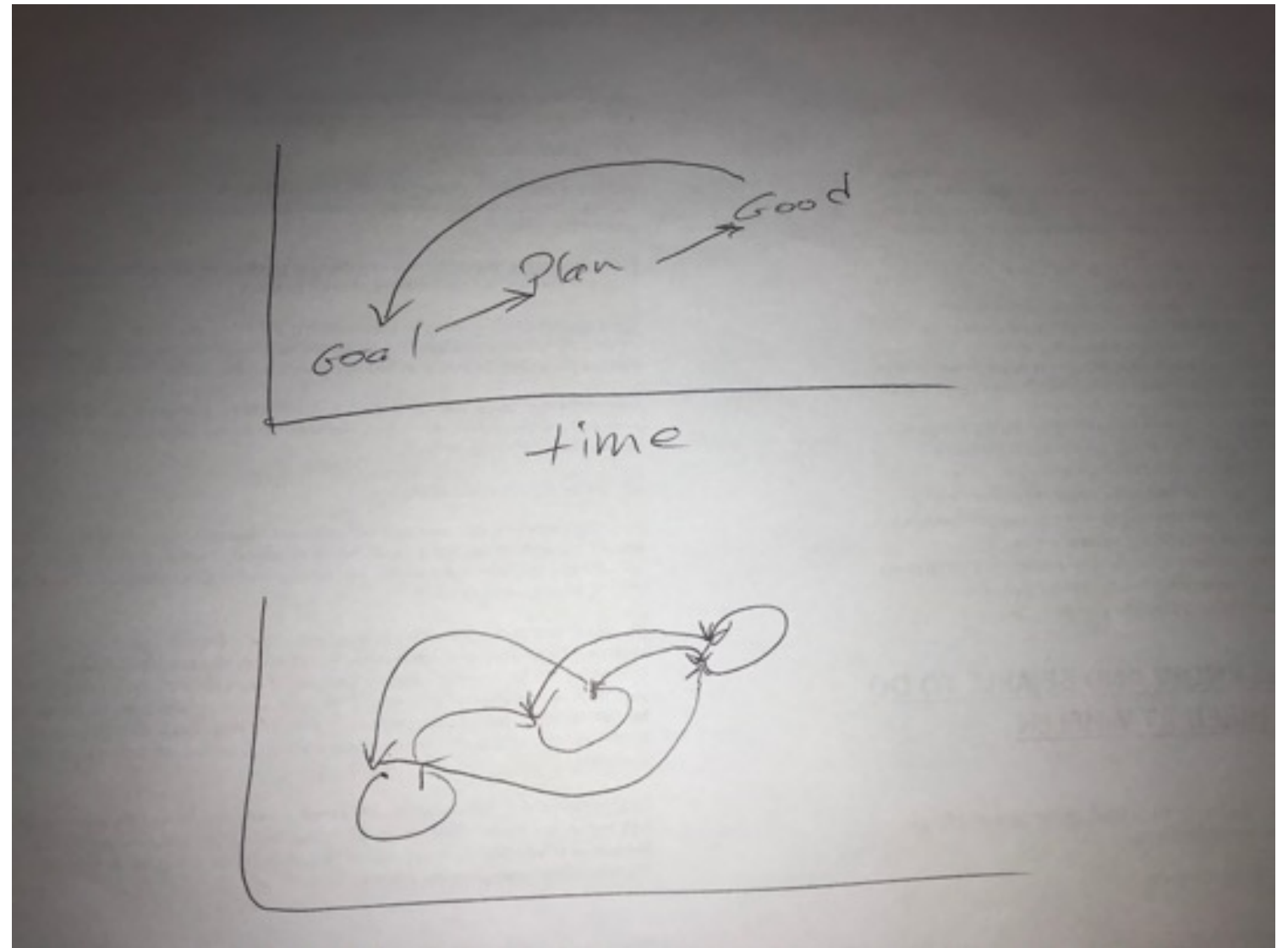Tell me about your work since

Unpublished… proposals accepted…

What Appear to be Findings…

- Educational Design Research is "Different"

  … Iterations

  … Naturalistic

  … Perspectives on Data

- Diffusion of Innovations

  … Innovations the Diffused

  … Innovators & Early Adopters
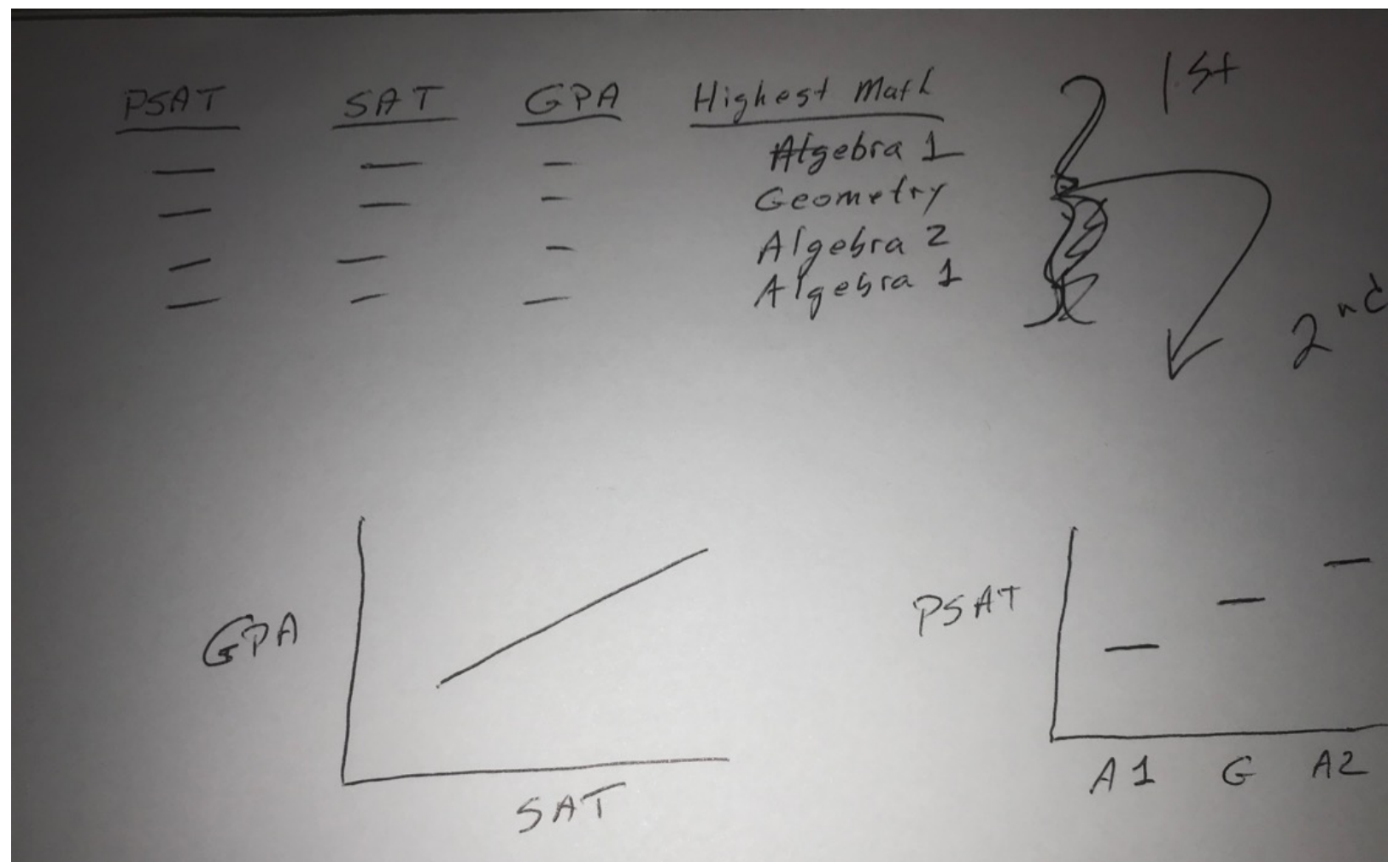
- "I learned a linear process. Set a goal, implement your plan, evaluate."

- Points of Entry

- Stopping

- "As I read, I understood what we needed and that led me to read more and more deeply."

- "I didn't really know what we needed until we had a prototype."

- "I had permission to fail, in the middle… then to restart."

- "We proceeded step at a time… never starting over."

- Known, predictable…

- My reality…
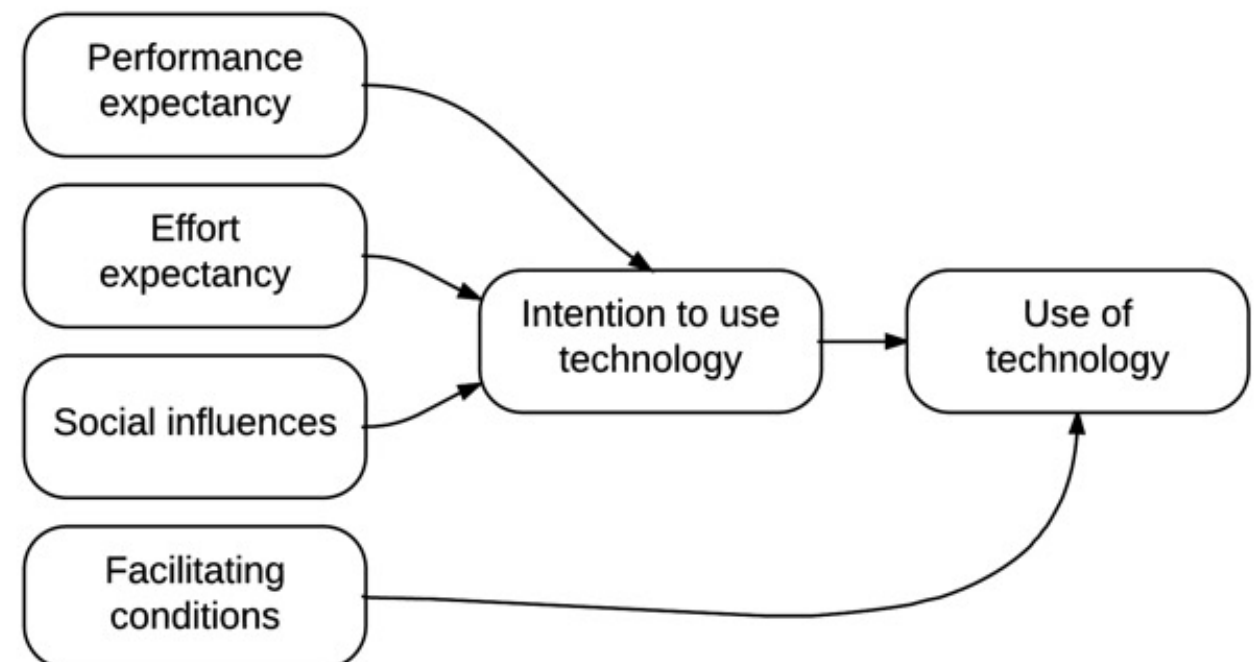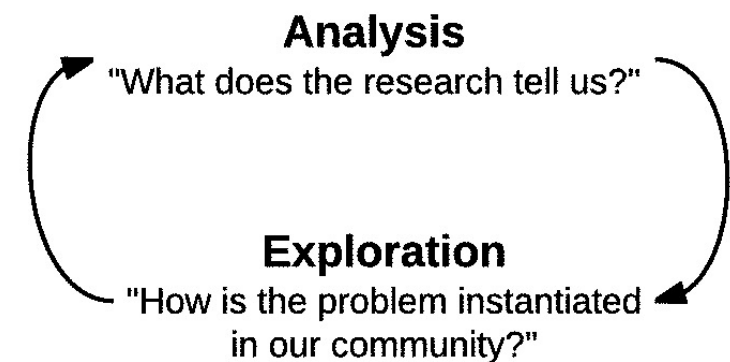
- "We had no extra money, so we could not buy what 'they' were selling."

- "Our tech people devised three plans, our teachers choose the one to deploy."

- "When we started using it, I realized we had solved the wrong problem."

EDR- Data

- "Theory enters the planning. We knew reasons as much as 'black boxes.'"

Analysis
"What does the research tell us?"

Exploration
"How is the problem instantiated in our community?"

- "Conversations focused on 'this needs to be easier' or 'I won't use that.'"

Diffusion of Innovations

- Change in what we do (transformational)

- Change in how we do it (system✱)

S-shaped curve showing the part of the population using the innovation

Bell-shaped curve showing the part of the population in each group

100

75

% of the population

50

25

0

time
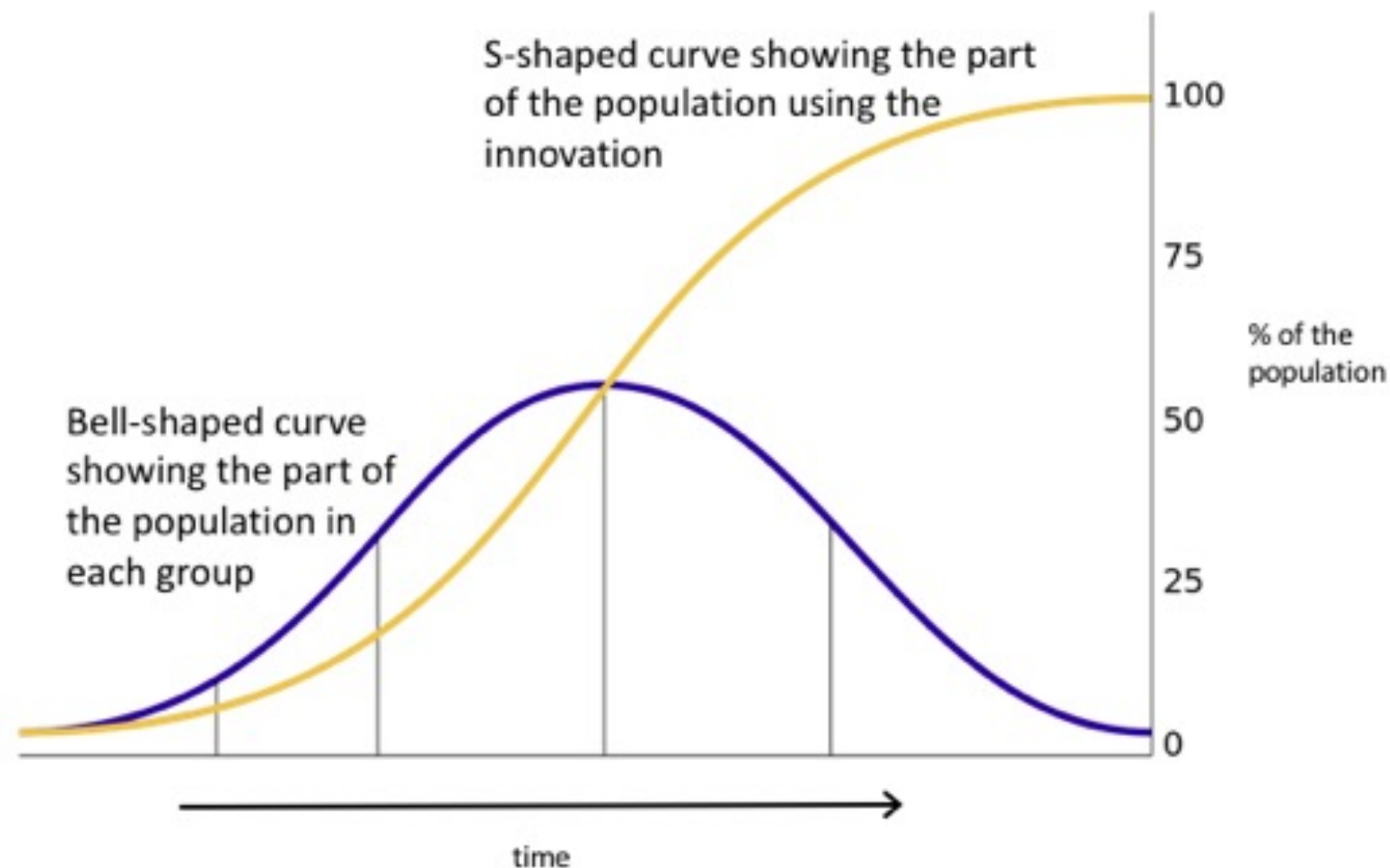
Innovations that Diffused

- Efficiency

- Capacity not available otherwise

- Social influences

- Communicated

Cumulative Profiles- Innovator (2)

- Joe (Innovator)

  - Unmet need

  - Partner in crime

  - Highly iterative

  - Active in the process

- Joe (Innovator)

  - Unmet need

  - Partner in crime

  - Highly iterative

  - Active in the process

Cumulative Profiles- Early Adopter (4)

- Joe (Innovator)

  - Unmet need

  - Partner in crime

  - Highly iterative

  - Active in the process

- Joe (Innovator)

  - Transfer proven technology

  - Focus on local functionality

  - More linear planning

  - Mediator of interaction between IT & education