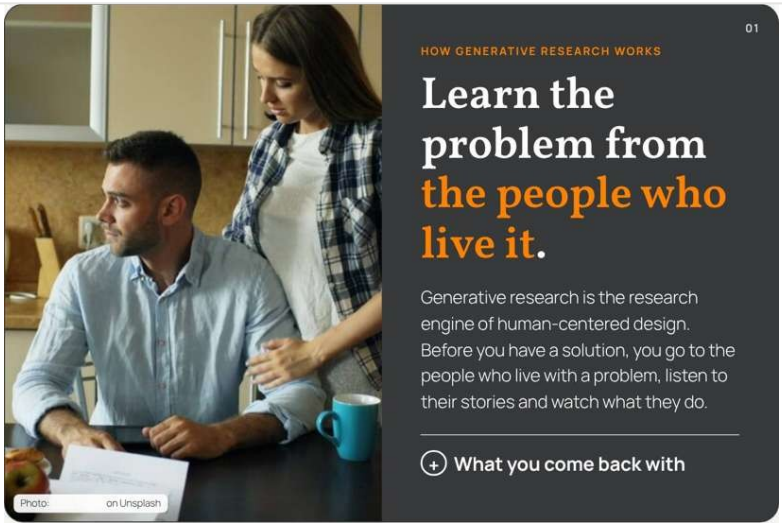
BUAD 317 · SLIDE NOTES

Generative Research: The Research Engine of Human-Centered Design

Each slide is on the left. Type or write your notes on the right. https://julesmorrisphd.com/teaching/smith-gls/buad-317/action-research/



Slide 1

My notes



Slide 2

My notes

03

MURATOVSKI: WHAT RESEARCH DOES FOR DESIGN

Research turns designers into strategists.



Our own drawing, based on Muratovski (2022) as presented in the Class 1 slides.

⊕ Text version of this diagram

Slide 3

My notes



04

WHAT A HUMAN-CENTERED DESIGNER BELIEVES

People with the problem hold the keys.

- **Solvable** even messy, stubborn problems move
- **Keys** people know what outsiders don't
- **Co-create** grounded in people, built with them
- **Research** unlocks the whole process
- **Creativity** anchors our hopes of meeting needs

Photo by @byfortytwo on Unsplash

Slide 4

My notes

05

BUILDING ON MINDSETS

Every mindset rests on empathy.



Our own drawing, based on the Class 1 "Building on Mindsets" slide.

⊕ Text version of this diagram

Slide 5

My notes



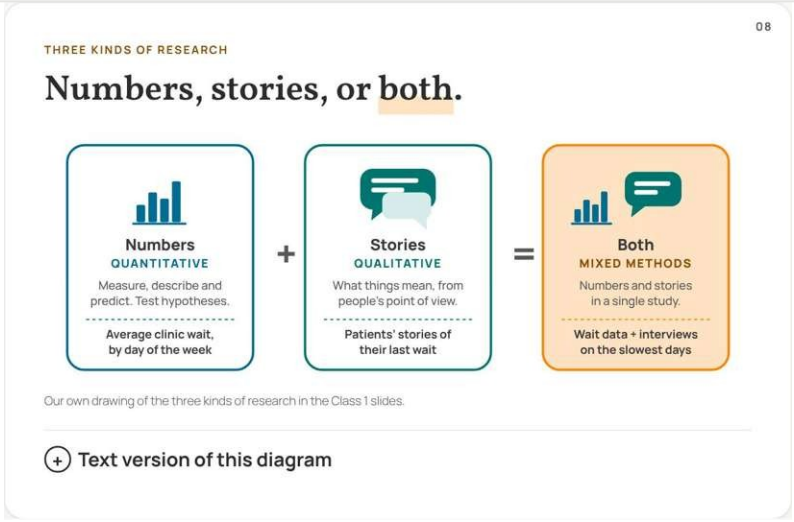
Slide 6

My notes



Slide 7

My notes



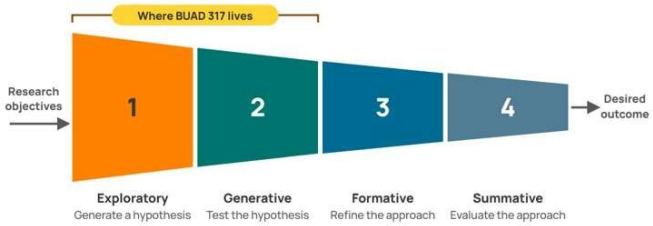
Slide 8

My notes

09

THE FUNNEL OF RESEARCH

Research narrows from wondering to knowing.



Our own drawing, based on the course slides. BUAD 317 lives mostly in layers 1 and 2.

⊕ Text version of this diagram

Slide 9

My notes

10

TRADITIONAL VS. GENERATIVE RESEARCH

Consulting needs research with a bias toward action.

Traditional research explains, predicts or controls something. It manipulates variables, tests a hypothesis with experimental and control groups, and checks for statistical significance. Business consulting usually needs a different mix.

Traditional research
A fixed design, planned in advance, in settings where variables can be controlled. It ends in a report.

VS

Generative research
An emerging inquiry in the field, where people actually live and work. It ends in positive change.

⊕ The full comparison

Slide 10

My notes

11

COMPARING FORMS OF RESEARCH (COGHLAN)

Action research asks what is useful?

Three forms of research, three different questions (after Coghlan, 2011).

POSITIVIST SCIENCE
"What can be proven?"
Detached and statistical. Judged by validity. Read by academics.

INTERPRETIST
"What is interesting?"
Participant observation. Judged by credibility. Read by academics.

ACTION RESEARCH
"What is useful?"
Engaged and participatory. Judged by actionability. Used by practitioners too.

⊕ The full comparison and why it matters

Slide 11

My notes



12

ACTION RESEARCH: THE MOST POPULAR APPLIED RESEARCH PILLAR

Leaders research their own practice.

Emergent inquiry
Field learning about needs.

A cycle
Problem, act, reflect, improve.

Learning by doing
By leaders, *for* themselves.

⊕ More from the slides

Slide 12

My notes

13

CONDUCTING ACTION RESEARCH

Start with a problem, a dilemma or an ambiguity.



N **Now**
What am I doing?

G **Gap**
Do I need to improve anything?

F **Focus**
If so, what?

M **Method**
How do I improve it?

P **Purpose**
Why should I improve it?

⊕ How data collection works here

Slide 13

My notes

14

GENERATIVE FIRST, EVALUATIVE LATER

Discover before you build. Test after.

Formative (generative): in process
"Feedback intended to help with the ongoing HCD process in learning how to make continuous improvements in the discovery, design, development, and deployment of a solution to a design challenge."
When. Early, before you have an idea to test.

Summative (evaluative): in conclusion
"Dedicated to assessing the effects, effectiveness, and efficiencies of the solution in meeting the needs of the people who have the design challenge."
When. After you build something, even a rough prototype.

HCD uses both. Most of the semester is generative.

⊕ Methods for each

Slide 14

My notes

15

KEY WORDS FOR EACH KIND OF RESEARCH

Generative words understand. Evaluative words act.

Listen to the verbs in your research questions. They tell you which kind of research you are doing.

Generative: 1 Uncover | 2 Discover | 3 Understand | 4 Explore | 5 Learn

Evaluative: 1 Observe | 2 Evaluate | 3 Identify | 4 Decide | 5 Determine

Sounds generative
"Uncover how first-year students decide where to eat between classes."

Sounds evaluative
"Determine whether the new menu board cuts the wait at lunch."

My notes

Slide 15

16

GENERATIVE ACTION RESEARCH EMPLOYS FIVE METHODS

Five ways to learn with people.

METHOD 1
Co-design workshops
Students and stakeholders shape solutions together.

METHOD 2
Contextual inquiry
Ethnography: watch behavior in context to reveal real practices.

METHOD 3
Participatory prototyping
Iterate low-fidelity prototypes with the people who will use them.

METHOD 4
Journey mapping workshops
Chart the steps of an experience or process to find what to improve.

METHOD 5
Interviews and diary studies
Deep insight into people's challenges and experiences.

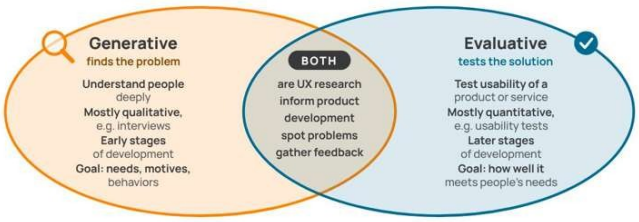
My notes

Slide 16

17

HOW THE TWO FIT TOGETHER

Generative finds the problem. Evaluative tests the solution.



Our own drawing, based on the Class 1 slides.

⊕ Text version of this diagram

My notes

Slide 17

HUMANS, NOT USERS

Understand people "as humans, not as users."

You are not asking for surface suggestions about a product. You are learning the feelings and triggers behind behavior, so you start from the problem space instead of the solution space.

⊕ Where this idea comes from



My notes

Slide 18

19

GENERATIVE ACTION RESEARCH, DEFINED

Learn the problem space before you design.

Discovery first
In the inspiration phase, before design begins.

Find opportunities
Spot, test and iterate new ones, or improve what exists.

1 — 2 — 3 — 4

Grasp the problem
Motivations, wants, needs and pain points: the "bug list."

Interviews and field studies
Uncover goals, motives and behavior.

⊕ The four ideas in full

My notes

Slide 19

20

SAY, DO, MAKE: THREE ROUTES TO WHAT PEOPLE KNOW

The deeper the knowledge, the less people can tell you.

Elizabeth Sanders: the deeper you go, the more you need to watch people and invite them to make things.

S — Say: explicit knowledge
What people can put into words when you ask.

D — Do: observable knowledge
What people actually do and use.

M — Make: tacit and latent knowledge
What people know but cannot easily explain, and needs they have not yet recognized.

⊕ Methods, limits and what to look for

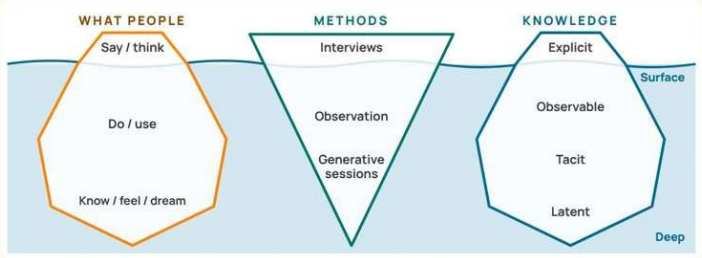
My notes

Slide 20

21

LEVELS OF KNOWLEDGE: THREE ICEBERGS

Deeper knowledge needs deeper methods.



Our own drawing, based on the Class 1 slides and Elizabeth Sanders' levels of knowledge.

⊕ Text version of this diagram

My notes

Slide 21

22

WHO DOES WHAT IN CO-DESIGN

People are partners, not subjects.

Traditional research studies people as subjects. Co-design works with them as partners, in three roles.

U

User

The expert of their own experience. Nobody knows their day better than they do.

R

Researcher

The translator and facilitator. Sets up conversations and activities that help people express what they know.

D

Designer

The expert prototyper. Turns what the team learned into things people can react to.

⊕ On a GLS consulting team

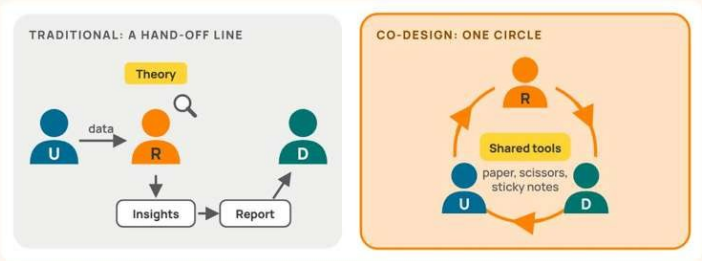
My notes

Slide 22

23

TRADITIONAL VS. CO-DESIGN ROLES, DRAWN

From a hand-off line to a circle.



Our own drawing of how the researcher, designer and user roles change from traditional design to co-design.

⊕ Text version of this diagram

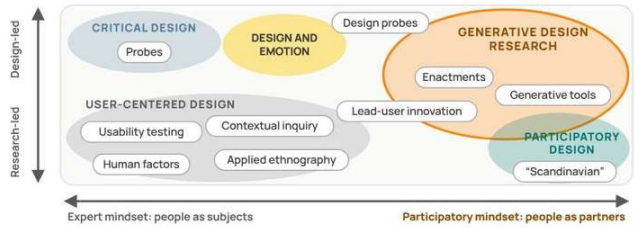
My notes

Slide 23

24

THE LANDSCAPE OF GENERATIVE DESIGN RESEARCH

Generative research treats people as partners.



Our own drawing, based on Elizabeth Sanders' map of design research, from the Class 1 slides.

⊕ Text version of this diagram

Slide 24

My notes

25

WHERE RESEARCH HAPPENS IN THE DESIGN PROCESS

The earlier the stage, the more a finding can change.



Our own drawing of the HCD research stages from the Class 1 slides.

⊕ Text version of this diagram

Slide 25

My notes

26

WHAT IS HUMAN KNOWING?

Knowing climbs from experience to action.



Our own drawing, based on Coghlan's general empirical method, from the Class 1 slides.

⊕ Text version of this diagram

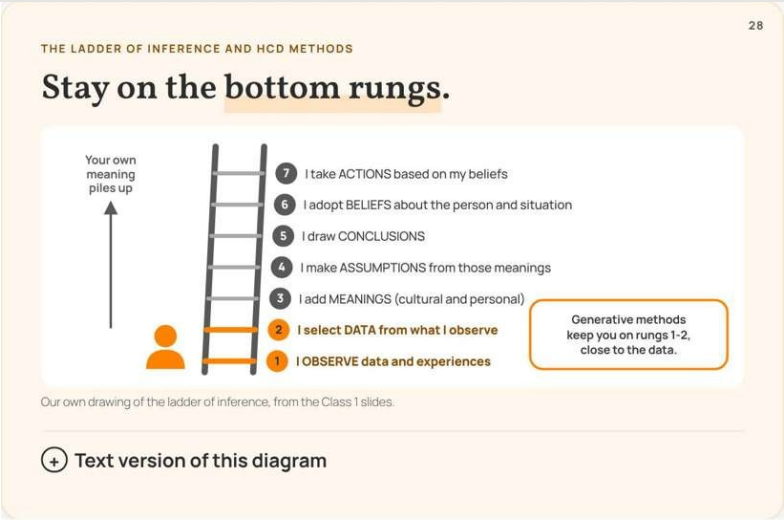
Slide 26

My notes



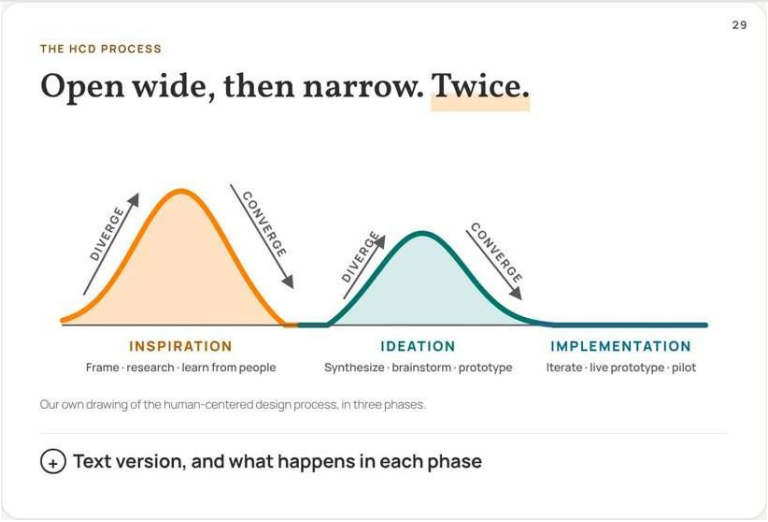
Slide 27

My notes



Slide 28

My notes



Slide 29

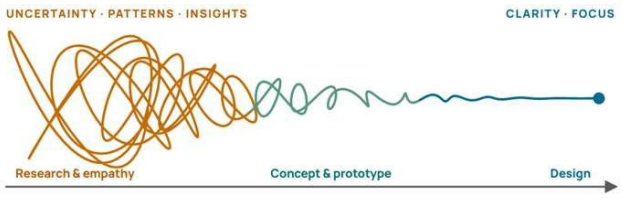
My notes

30

WHAT IT FEELS LIKE

Messy first. Clear later.

The start of a project is supposed to feel fuzzy. Every round of research and making untangles a little more.



Our own drawing, inspired by the idea behind Damien Newman's Design Squiggle.

⊕ Text version of this diagram

My notes

Slide 30



01

CREATIVITY AND WHERE GENERATIVE RESEARCH CAME FROM

Research feeds creativity.

Class 1 pairs generative research with a short look at how creative ideas happen, then shows where this kind of research came from. Use these panels when you need the background.

Photo: on Unsplash

My notes

Slide 31

02

DAY 1 DEBRIEF · CREATIVE CONFIDENCE

Everyone is creative. Many of us stopped believing it.

“ In *Creative Confidence* (2013), Tom and David Kelley describe the “creativity scar”: the moment someone told us we weren't creative, and we believed them. Most of us carry one. Research takes the courage to look and ask anyway.

⊕ Debrief questions

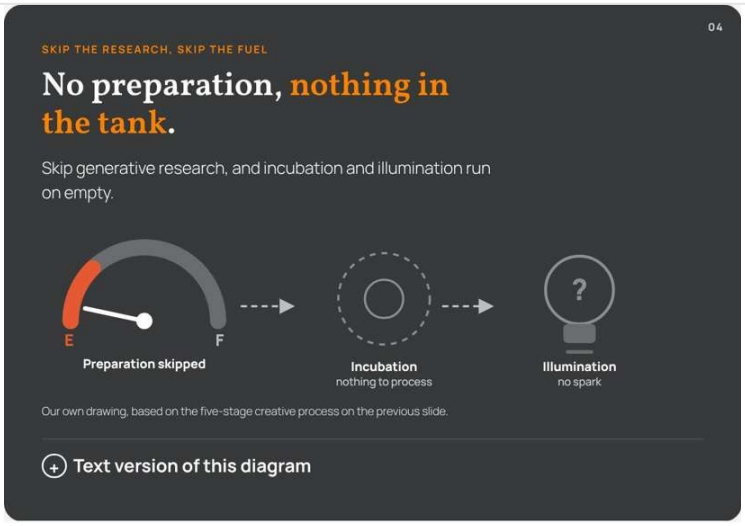
My notes

Slide 32



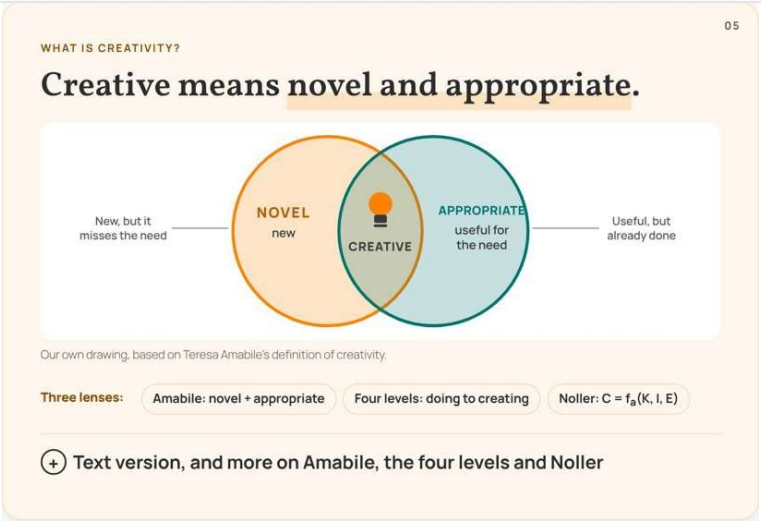
Slide 33

My notes



Slide 34

My notes



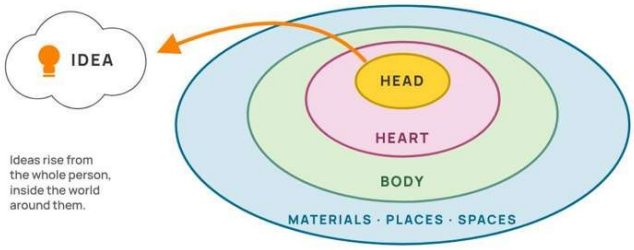
Slide 35

My notes

06

WHERE IDEAS COME FROM: HEAD, HEART, BODY

Ideas come from the whole person.



Our own drawing, based on the Class 1 "What is creativity?" slide.

⊕ Text version of this diagram

My notes

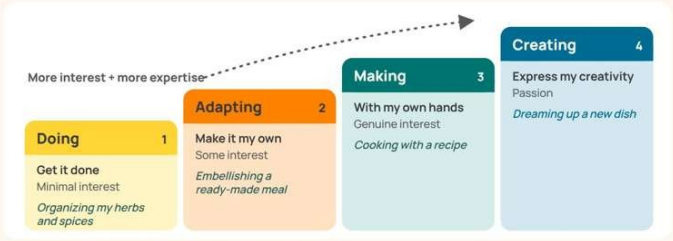
Slide 36

07

FOUR LEVELS OF CREATIVITY

From doing to creating.

Each step asks for more interest and expertise, shown in one kitchen.



Our own drawing, based on the Class 1 slides on levels of creativity.

⊕ Text version: the full table

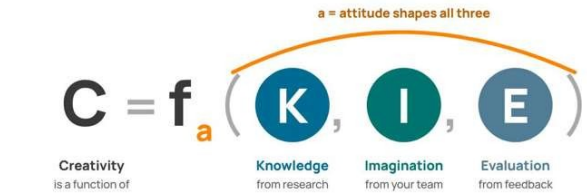
My notes

Slide 37

08

NOLLER'S CREATIVE FORMULA, DRAWN

Attitude shapes knowledge, imagination and evaluation.



Our own drawing of Ruth Noller's formula, from the Class 1 supplemental slides.

⊕ Text version of this diagram

My notes

Slide 38

09

THREE INGREDIENTS OF CREATIVITY

Creativity lives where three things overlap.



Our own drawing, based on Teresa Amabile's componential model of creativity (1998).

⊕ Text version, and Amabile's own words

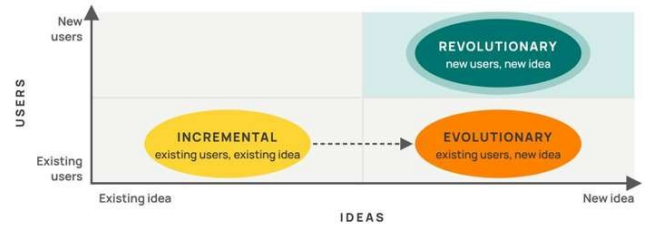
Slide 39

My notes

10

CREATIVITY AND INNOVATION: USERS AND IDEAS

New users plus new ideas make a revolution.



Our own drawing, based on the Class 1 slides.

⊕ Text version of this diagram

Slide 40

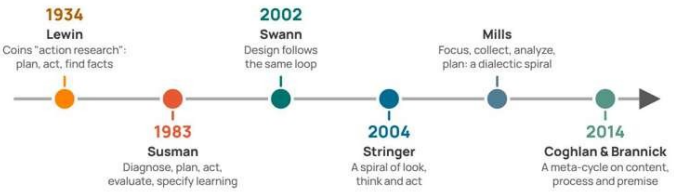
My notes

11

WHERE IT CAME FROM: LEWIN, SUSMAN AND THE RESEARCH CYCLE

Plan, act, learn, repeat.

Generative research grows out of **action research**: real problems, real settings, real people.



Our own drawing, based on the Class 1 slides and supplemental slides.

⊕ Text version, and where it came from

Slide 41

My notes

A BRIEF HISTORY OF ACTION RESEARCH

Ordinary people, collective discovery.

Kurt Lewin coined "action research" in 1934.

- **P** **Participatory** — People take part in the inquiry.
- **D** **Democratic impulse** — Everyone affected has a voice.
- **C** **A double contribution** — To social science and social change.

⊕ More: Kurt Lewin's idea



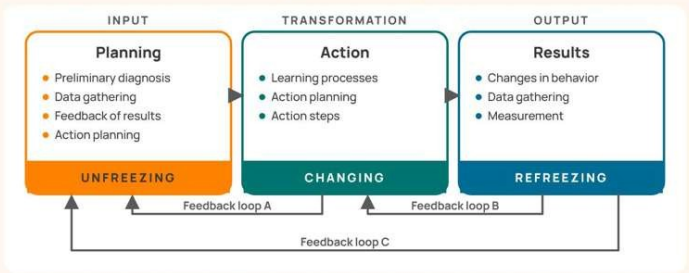
Slide 42

My notes

13

KURT LEWIN'S SYSTEMS MODEL OF ACTION RESEARCH

Unfreeze, change, refreeze.



Our own drawing, based on the Class 1 slides.

⊕ Text version of this diagram

Slide 43

My notes

14

SOCIALLY AND ETHICALLY RESPONSIVE ACTION RESEARCH

Research done with people, not on them.

D	P	E	L
Democratic	**Participatory**	**Empowering**	**Life-enhancing**
Enabling people to participate.	Building a community of learners.	Providing freedom from oppressive, debilitating conditions.	Enabling expression of full human potential.

Slide 44

My notes

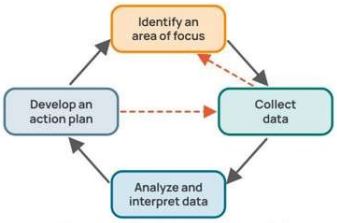
15

TWO SIMPLE ACTION RESEARCH CYCLES

Plan, act, analyze, conclude. Then again.



A simple action research cycle



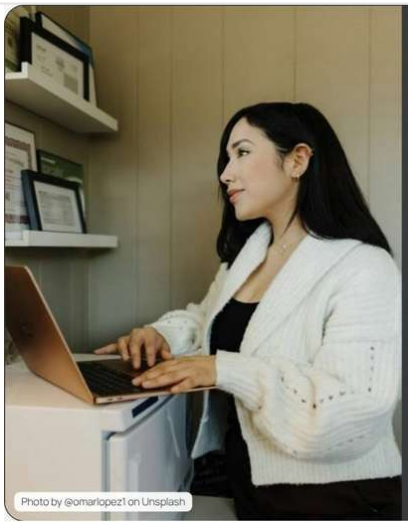
Mills's dialectic action research spiral

Our own drawings, based on the Class 1 slides and Geoffrey Mills's dialectic action research spiral.

⊕ Text version of this diagram

Slide 45

My notes



16

PRACTICAL ACTION RESEARCH

An emphasis on how to lead.

Practical action research makes four assumptions about leaders.

Autonomous. Leaders can decide what to study and what to change.

Committed. To professional development and organizational improvement.

Reflective. They reflect systematically on their own practices.

Creative. They design their own research focus and methods to solve problems.

Photo by @omarlopez1 on Unsplash

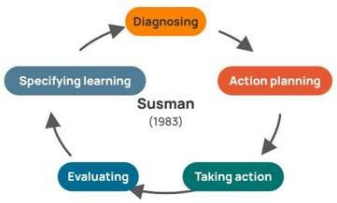
Slide 46

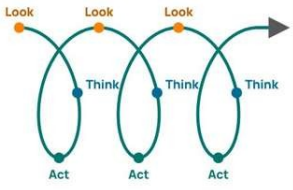
My notes

17

SUSMAN'S CYCLE AND STRINGER'S SPIRAL

Five phases, or look, think, act.





Stringer (2004): look, think, act, spiralling forward

Our own drawing, based on the Class 1 supplemental slides (adapted from Susman, 1983, and Stringer, 2004).

⊕ Text version of this diagram

Slide 47

My notes

18

GOALS OF ACTION RESEARCH, AND WHY IT COUNTS

Improve lives. Learn the craft.

1 **Improve lives.** Improve, enhance and enrich the lives of people.

2 **Learn the craft.** Lead with creativity and innovation to develop impactful solutions.

3 **Use visual ways of knowing.** Learn and use the visual ways people sense, know, remember and express.

Why it counts: Persuasive and authoritative | Relevant | Gives leaders access to research findings | Serious research, not a fad

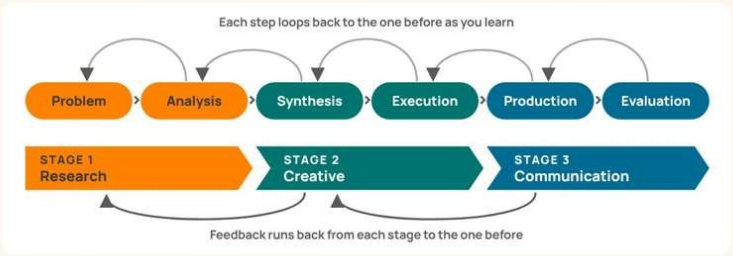
My notes

Slide 48

19

CAL SWANN'S ITERATIVE DESIGN STEPS (2002)

Research, create, communicate. Loop back.



Our own drawing, based on the Class 1 supplemental slides.

⊕ Text version of this diagram

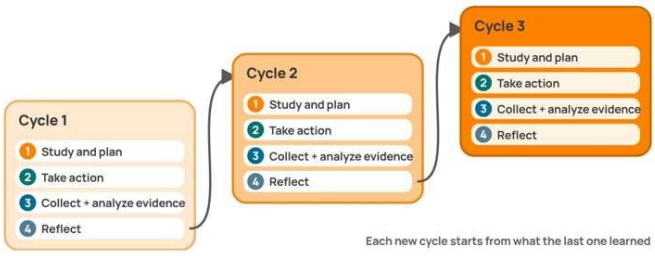
My notes

Slide 49

20

PROGRESSIVE PROBLEM SOLVING WITH ACTION RESEARCH

Each cycle starts higher than the last.



Our own drawing, based on the Class 1 slides.

⊕ Text version of this diagram

My notes

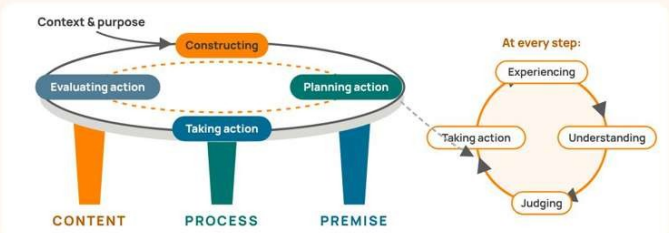
Slide 50

21

THE META-CYCLE OF ACTION RESEARCH (COGHLAN AND BRANNICK, 2014)

A cycle that stands on three legs.

Each step of the cycle is itself a small cycle.



Our own drawing, based on Coghlan and Brannick (2014), from the Class 1 slides.

⊕ Text version of this diagram

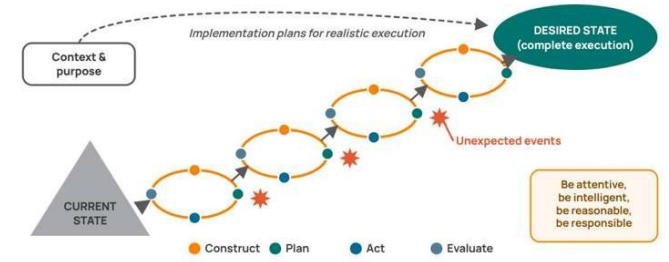
My notes

Slide 51

22

PLANNED CHANGE THROUGH ACTION RESEARCH

Small cycles climb toward the desired state.



Our own drawing, based on the Class 1 slides.

⊕ Text version of this diagram

My notes

Slide 52

CO-CREATION AND STORIES AS DATA

Stories are the data. Storytellers help make sense of them.

- **Co-creation** can be a mindset, a method or a tool.
- **Narrative research:** people make meaning by telling stories, so stories are the data.
- **Participative narrative inquiry:** storytellers also help make sense of their stories.

⊕ More: stories as data



My notes

Slide 53

24

WHAT IS NARRATIVE RESEARCH? THE POWER OF STORIES

Stories are the data.

"As humans, the truth about experiences and stories is… that's all that we are."
Class 1 supplemental slides

Words and images
People's written or spoken words, or visual representations.

Lived and told
People live and tell stories to make meaning, discover needs and solve problems.

The epiphany
Listen for the experience story and the magic moments of insight.

⊕ More on narrative research

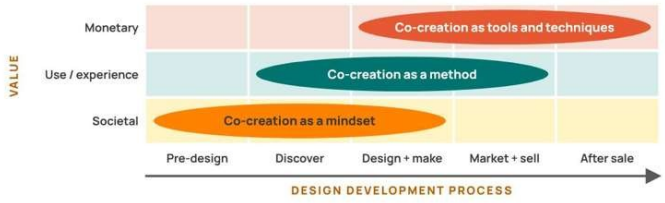
Slide 54

My notes

25

CO-CREATION AS MINDSET, METHOD OR TOOL, DRAWN

Each kind of co-creation adds a different value.



Our own drawing, placing three views of co-creation by level of value and stage of the design process.

⊕ Text version of this diagram

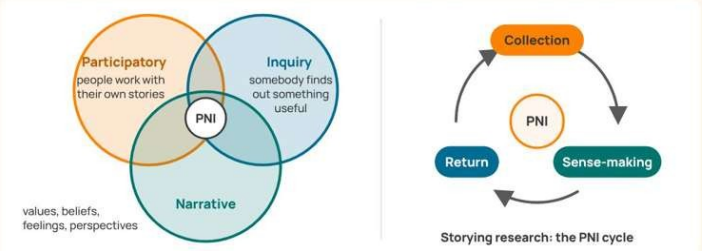
Slide 55

My notes

26

PARTICIPATIVE NARRATIVE INQUIRY, DRAWN

Collect, make sense, return.



Our own drawing, based on the Class 1 supplemental slides.

⊕ Text version of this diagram

Slide 56

My notes