

Building a Quality Literature Review

R I C H A R D E . W E S T
I P T 7 5 0



ANNOUNCEMENTS

- Today's Devo: Troy
 - Next devo: Mary / Ken
- Today's Writing Strategies: Brian / Holt
 - Next week's writing strategies: Troy / Shelley
- Today's lit review critique: Group 1
- Extended Outlines due Feb. 25
- Still grading annotated biblios

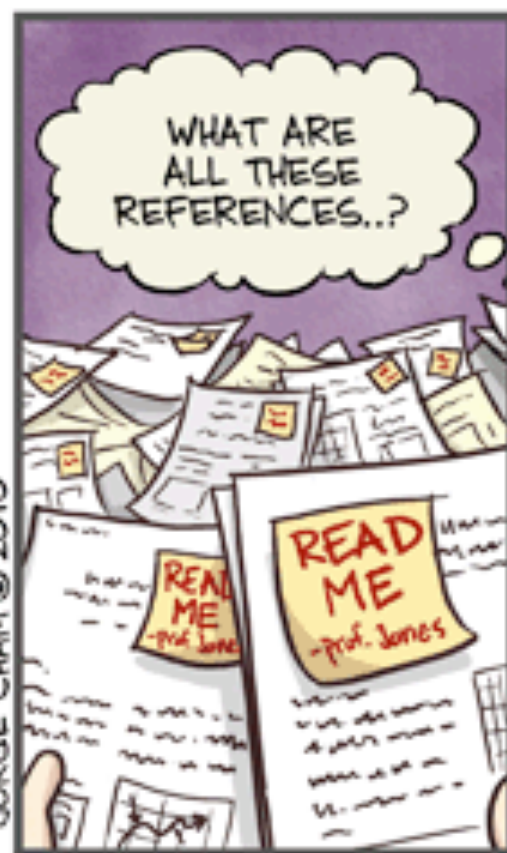
WHEN YOU FEEL
OVERWHELMED WITH
READING REFERENCES



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TOM'S EXCEL ORGANIZATIONAL STRATEGY

ORGANIZING LIT REVIEWS

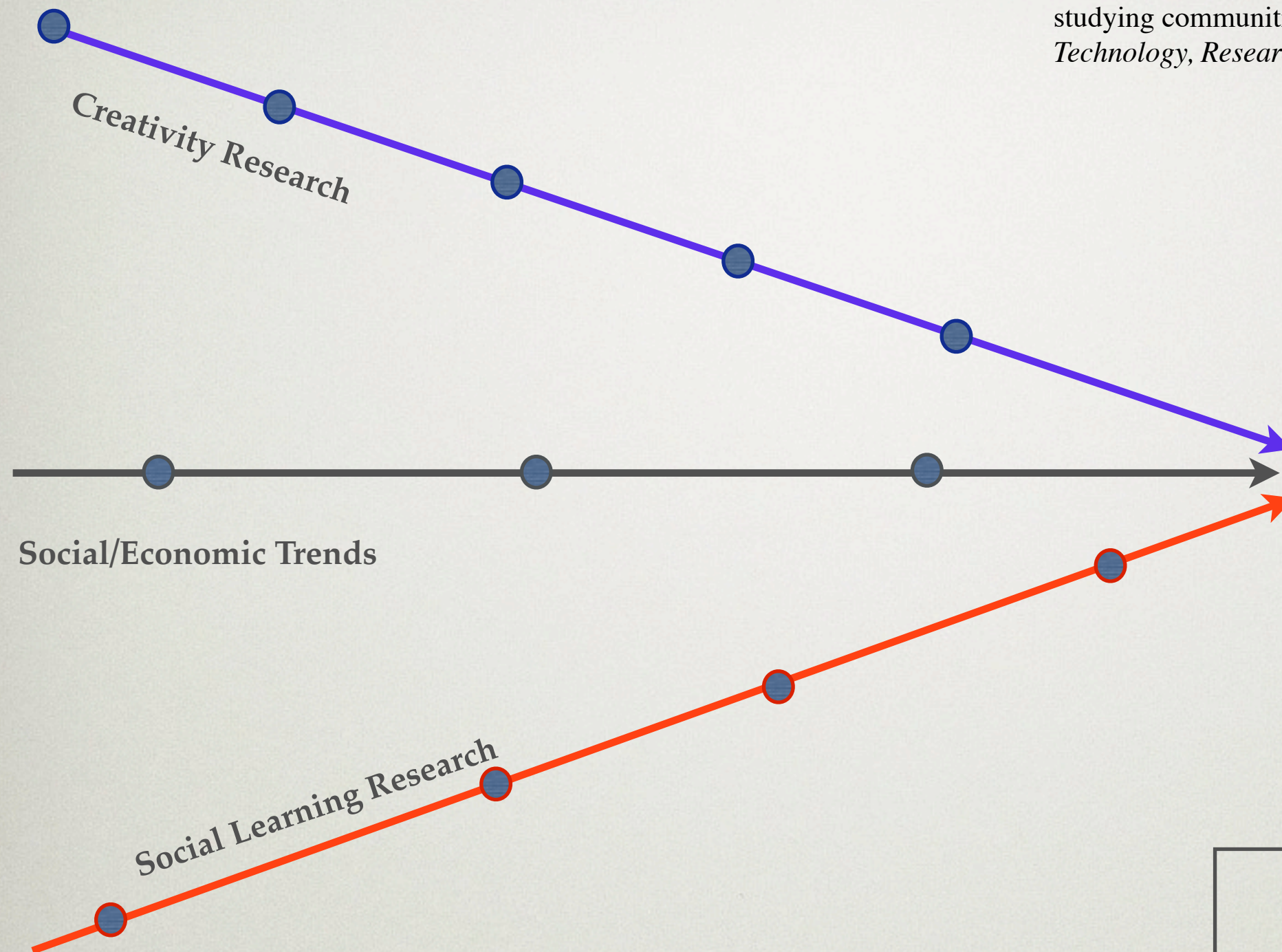
- Chronological
- Philosophical
- Theoretical
- Methodological
- Definition comparison
- Meta-analyses
- Point, counterpoint
- Model comparison
- Others?

CHRONOLOGICAL

- see handout (from Rick's comp paper)

PHILOSOPHICAL

West, R. E. (2009). What is shared? A framework for studying communities of innovation. *Educational Technology, Research, & Development*, 57(3). 315-332.



Social/Economic Trends

Social Learning Research

Key

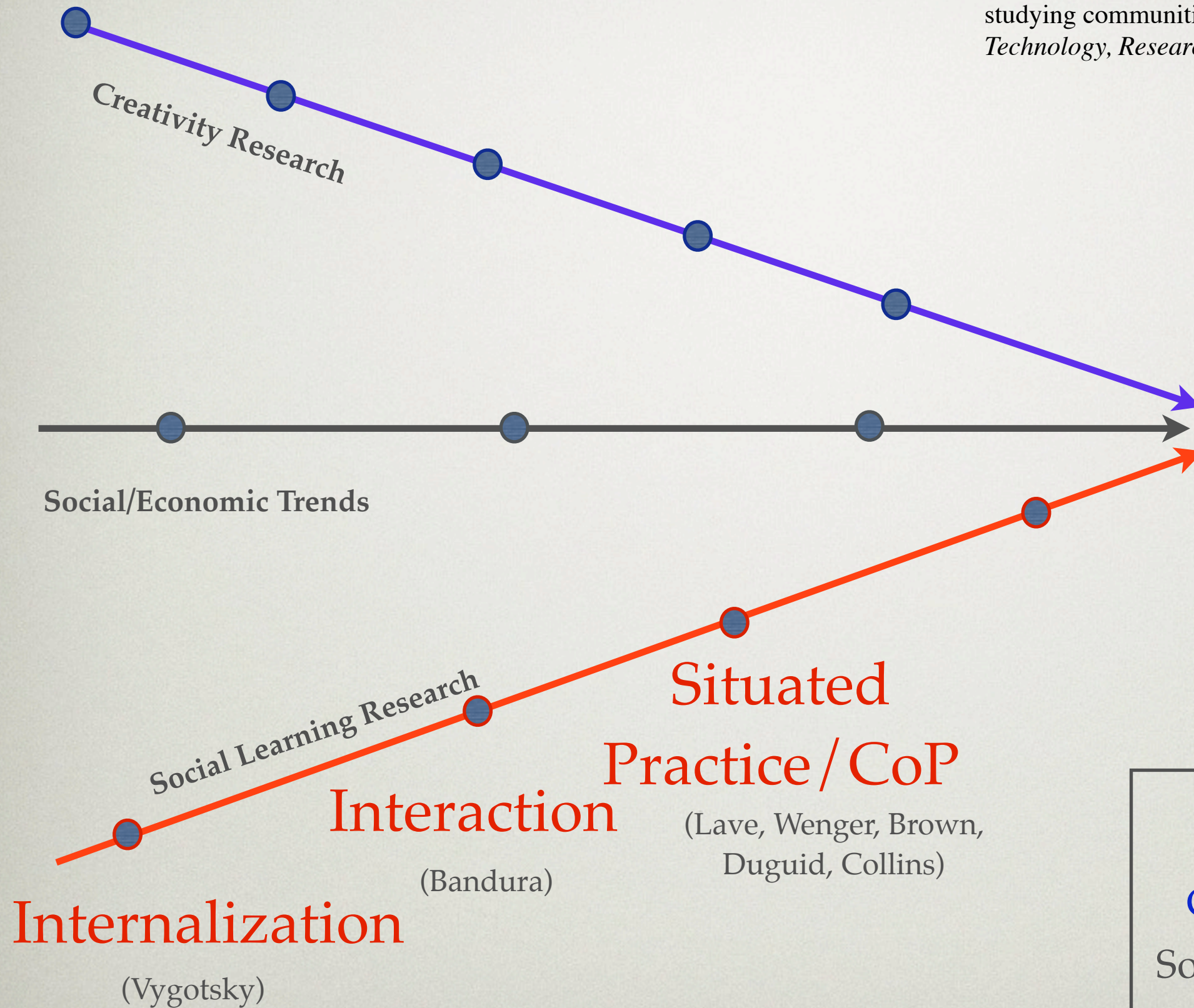
Creativity Research

Society / economic trend

Social Learning Research

PHILOSOPHICAL

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Key

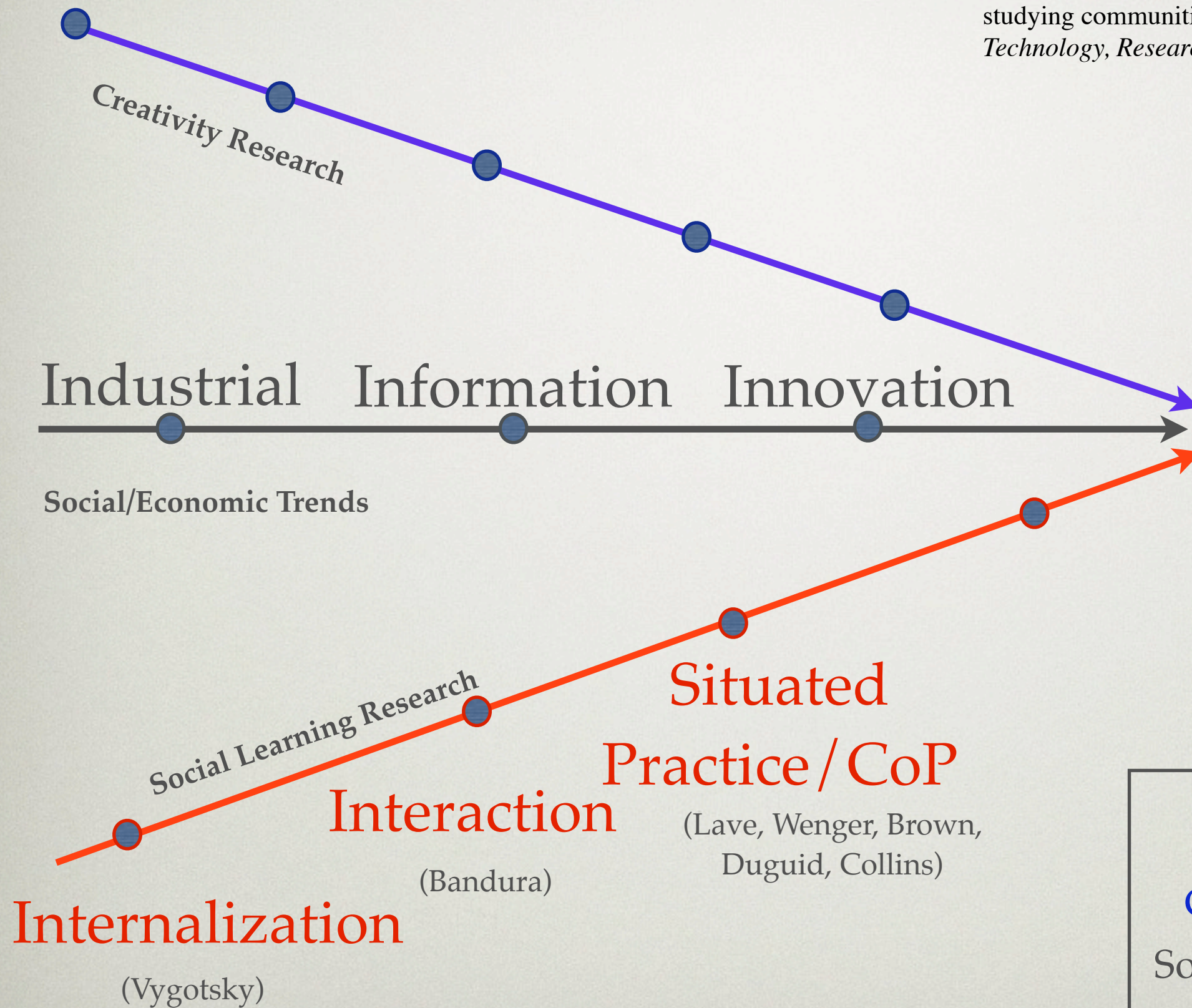
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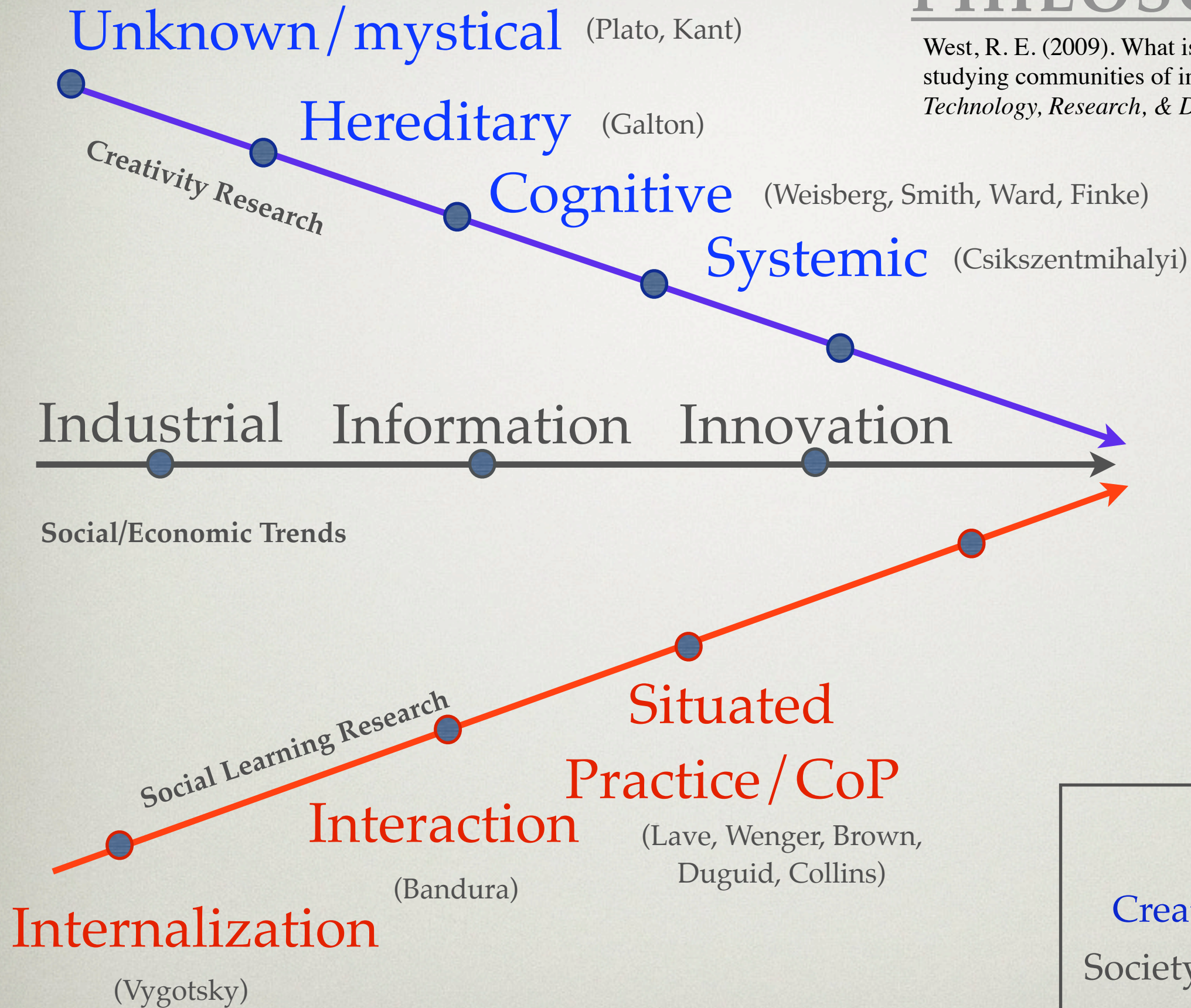
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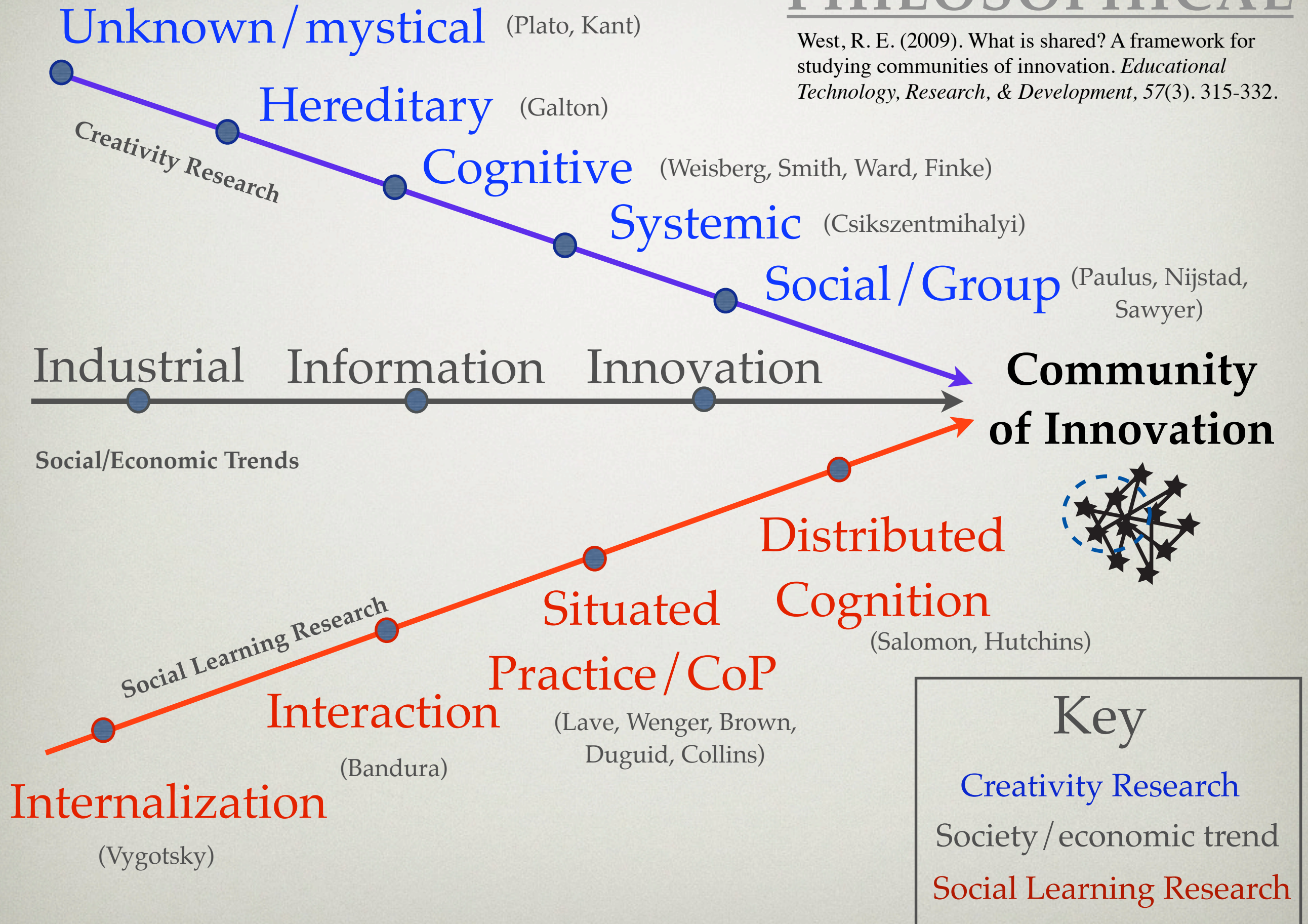
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THEORETICAL

Cognitive perspective on online learning

- Definitions and assumptions of cognitive theory
- Description of the constructs in online learning research
 - Motivation (summary of research, point/ counterpoint)
 - Cognitive load (summary of research, point/ counterpoint)
 - Metacognition (summary of research, point/ counterpoint)
- Implications

Hannafin, M., Hill, J., Song, L., & West, R. E. (2007). Cognitive factors in Technology-enhanced Distance Learning Environments. In Michael Moore (Ed.), *Handbook of distance education* (2nd ed.). (pp. 123-136). Mahwah, NJ: Lawrence Erlbaum Associates.

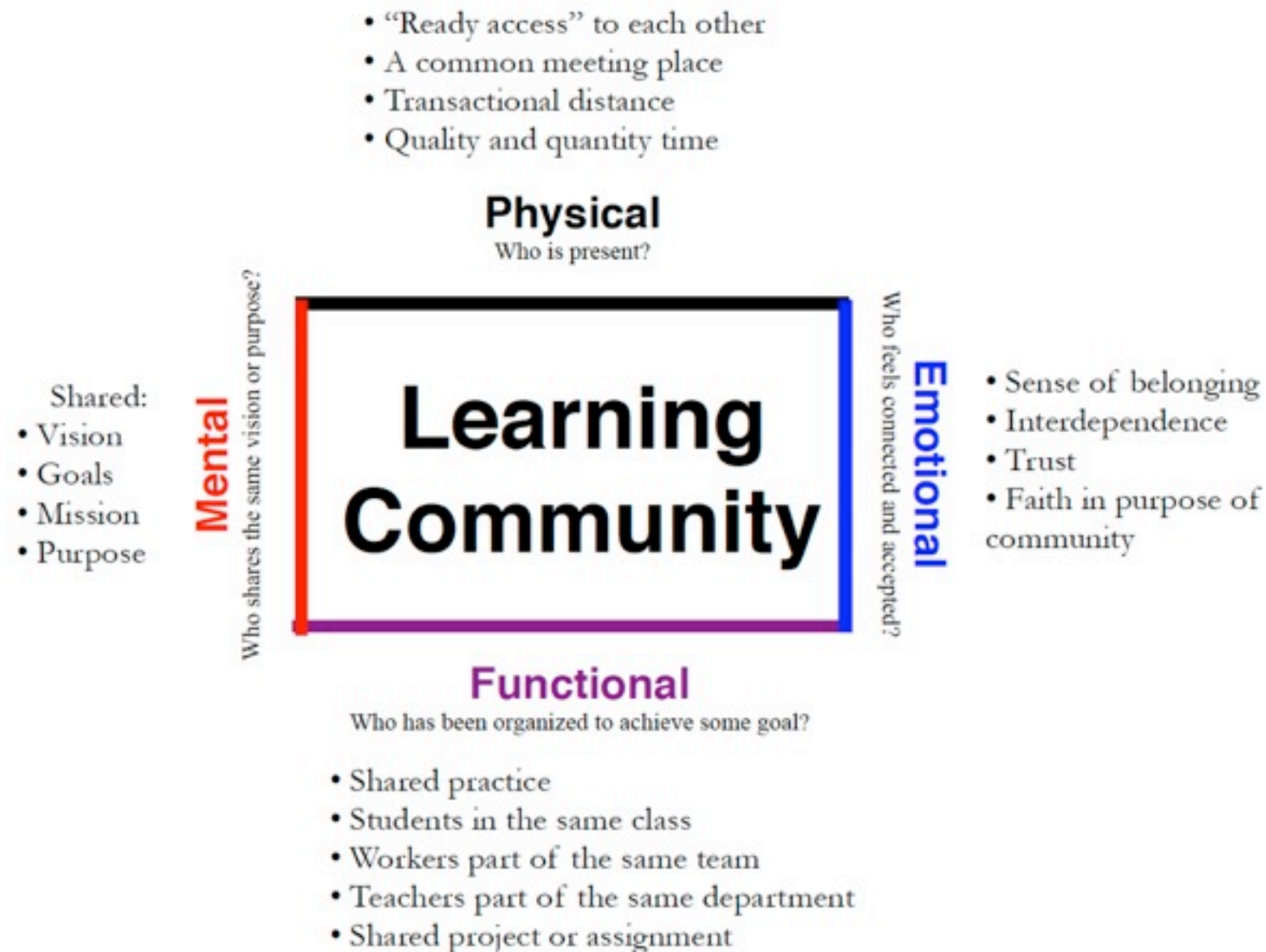
METHODOLOGICAL

Kahl, C. H., da Fonseca, L. H., & Witte, E. H. (2009). Revisiting Creativity Research: An Investigation of Contemporary Approaches. *Creativity Research Journal*, 21(1), 1-5.

	Traits	Processes	Products	Other	
Individual	25	17	12	0	45%
Group	2	9	9	0	17%
Organization	2	11	14	0	23%
Culture	0	1	7	0	7%
Other	0	1	7	2	8%
	24%	33%	41%	2%	

FIGURE 2 The classification for the entire sample ($N=119$) across aspect and level dimensions. Cells depict absolute and margins relative frequencies.

DEFINITION COMPARISON



West, R. E. (2007). Defining and researching the boundaries of learning communities. Paper presented at the annual conference of the Association for Educational Communications and Technology in Anaheim, CA.

META-ANALYSIS

TABLE 3

Weighted mean effect sizes for combined achievement outcomes

	Effect size		95% confidence interval		Homogeneity of effect size	
	<i>g</i> +	<i>SE</i>	Lower	Upper	<i>Q</i> value	<i>df</i>
Combined outcomes (<i>k</i> = 318, <i>N</i> = 54,775)	0.0128	0.0100	−0.0068	0.0325	1,191.32*	317
Synchronous (<i>k</i> = 92, <i>N</i> = 8,677)	−0.1022*	0.0236	−0.1485	−0.0559	182.11*	91
Asynchronous (<i>k</i> = 174, <i>N</i> = 36,531)	0.0527*	0.0121	0.0289	0.0764	779.38*	173
Unclassified (<i>k</i> = 52, <i>N</i> = 9,567)	−0.0359	0.0273	−0.0895	0.0177	191.93*	51

**p* < .05.

Bernard, et. al. (2004). Meta-Analysis of the Empirical Literature How Does Distance Education Compare With Classroom Instruction? A Meta-Analysis. *RER* 74(3).

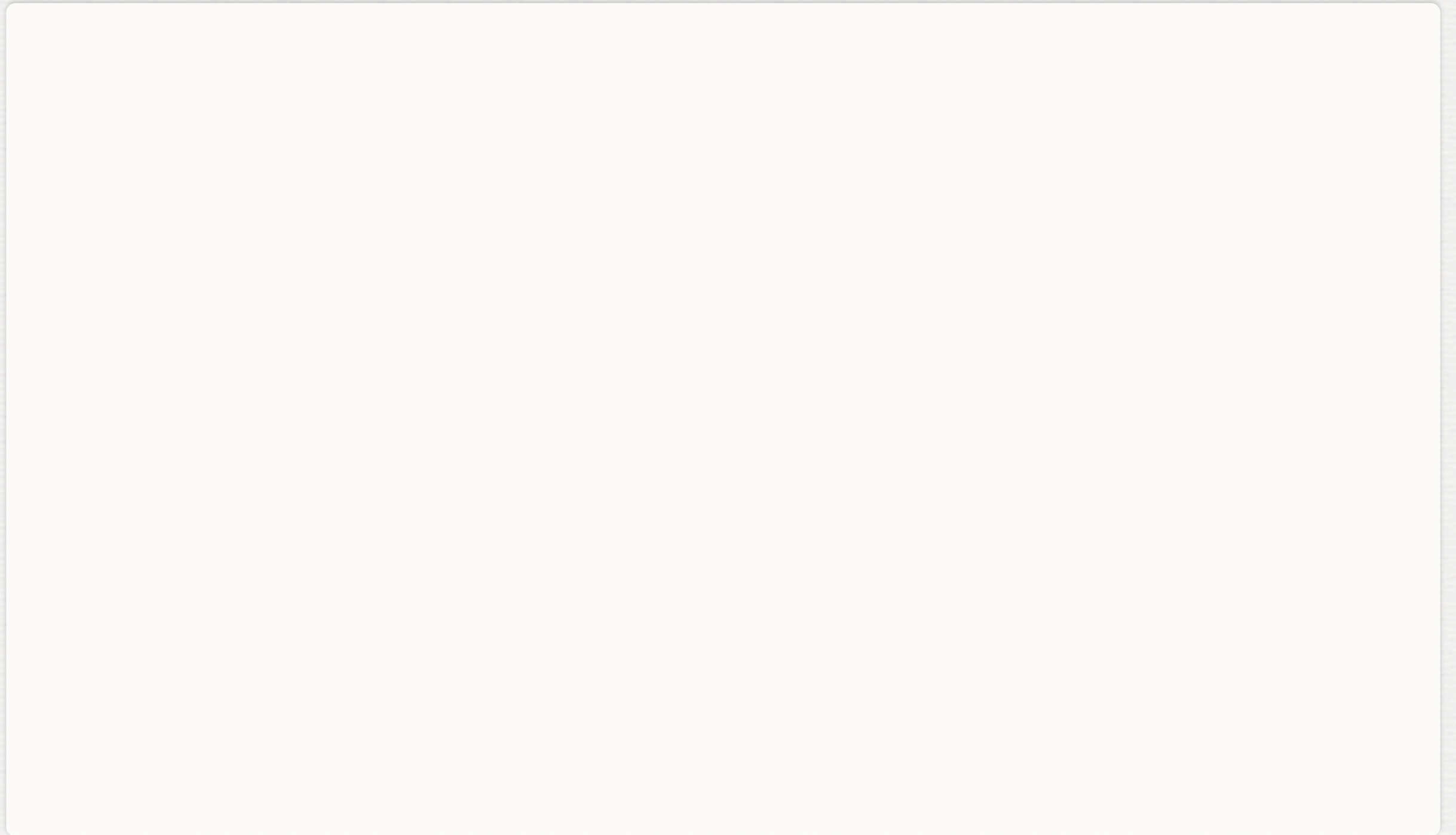
MODEL COMPARISON

TABLE 1
Three models of innovative knowledge communities

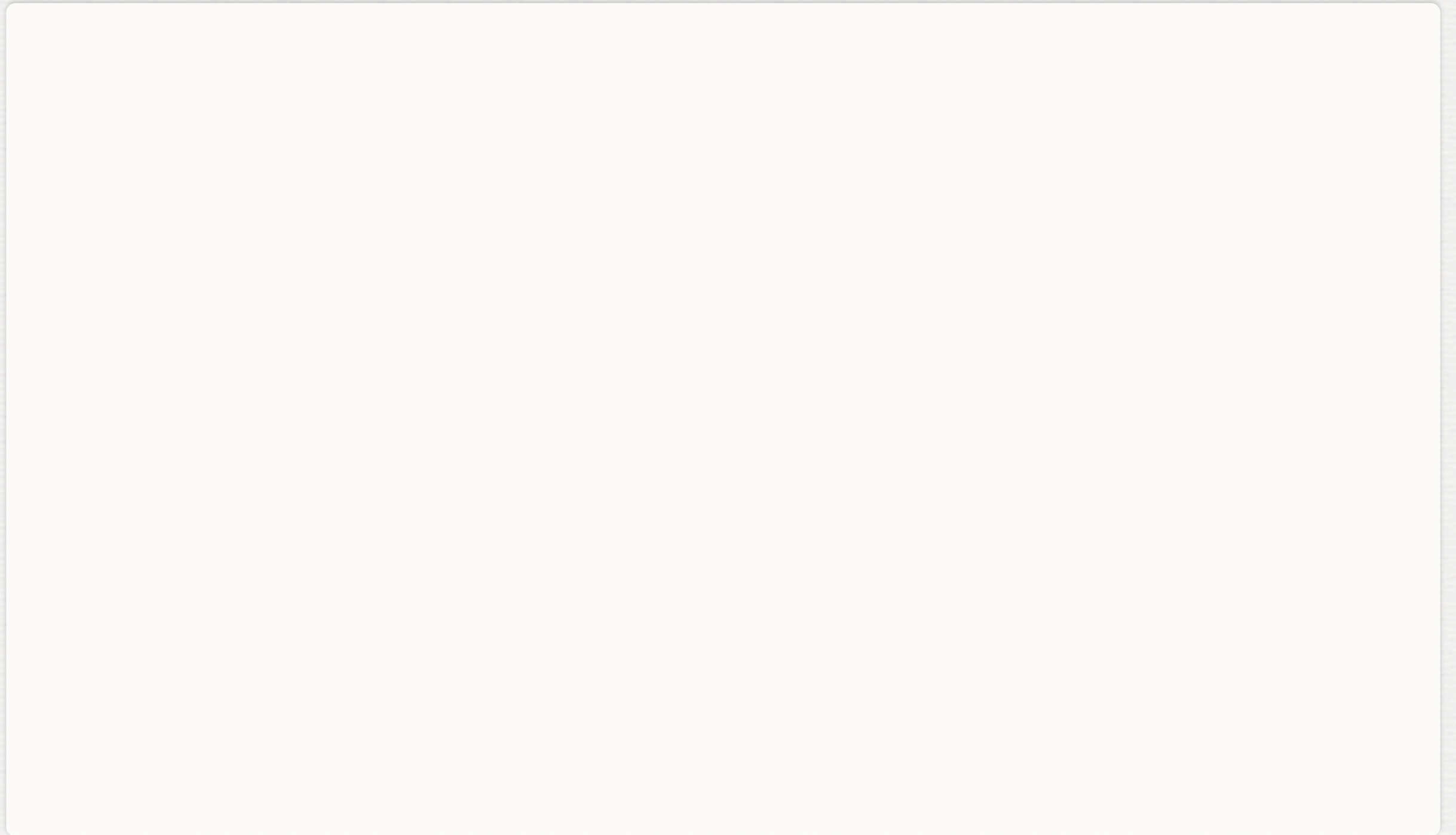
	Nonaka & Takeuchi	Engeström	Bereiter
Type of processes focused on	Emphasis on the knowledge spiral, based on tacit versus explicit knowledge	Emphasis on material object-oriented activities and practices	Emphasis on knowledge building with conceptual artifacts
Source of innovation	Transforming tacit knowledge into explicit knowledge	Overcoming tensions, disturbances, and ambiguities through expansive learning	Working deliberately to create and extend knowledge objects
Scope of framework	Ontological levels (individual, group, organizational, and inter-organizational)	Activity systems and networks of activity systems	Knowledge-building communities

Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). Models of innovative learning communities and three metaphors for learning. *Review of Educational Research*. pp. 557–576.

GROUPS



GROUPS



GROUPS

Group 1

GROUPS

Group 1
Katie

GROUPS

Group 1

Katie

Andrea

GROUPS

Group 1

Katie

Andrea

Shelley

GROUPS

Group 1

Katie

Andrea

Shelley

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

Group 4

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

Group 4

Ken

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

Group 4

Ken

Troy

GROUPS

Group 1

Katie

Andrea

Shelley

Group 2

Mike A.

John

Mike T

Group 3

Holt

Mary

Moses

Group 4

Ken

Troy

Brian

- What do you think will be YOUR approach to interpreting and organizing the literature?
- Share with your group your initial thoughts about how you might organize your review. Why do you think that will work best? What “piles” do you have?
 - Group members, see if their approach makes sense for their topic.

EXTENDED OUTLINE

- No template
- Headings and subheadings
 - a few sentences under each heading so the reader can follow the logic and argument
- Use bulleted lists to quickly present the connecting ideas
- Target: 3-5 pages, at least
- This is a checkpoint on logic and argument

VISUALIZING DATA

- Can you organize your findings into a ...
 - Table?
 - Graph?
 - Figure?
 - Drawing?
- Why is this useful to readers? To you as the writer?

TABLE?



Table 1 Summary of conceptual change models

The model	Authors	Characteristics	
		Strengths	Weaknesses
Theory of conceptual change	Posner et al. (1982)	Identified key cognition factors contributing to conceptual change in students' learning	Lack of focus on the role of instructors in students' conceptual change learning process
Revisionist theory of conceptual change	Strike & Posner (1992)	Added affective factors (e.g., motivation) as contributing factors to students' conceptual change learning process	Still lack of focus on the role of instructors in students' conceptual change learning process
Teaching for conceptual change	Hewson et al. (1998)	Recognized the significant role of the instructor's teaching in students' conceptual change learning process	Lack of attention to the dynamic relationship between teaching and learning
Processes of change	Merenluoto and Lehtinen (2004)	Recognized the different paths that students may take based on their different cognitive, metacognitive, and motivational sensitivity to the task	Lack of attention to the impact of the instructor's teaching on the paths that students may take

Song, L.; Hannafin, M.; & Hill, J. (2007).

Reconciling beliefs and practices in teaching and learning. *Educational Technology, Research, and Development*. 55(1): 27-50.

FIGURES

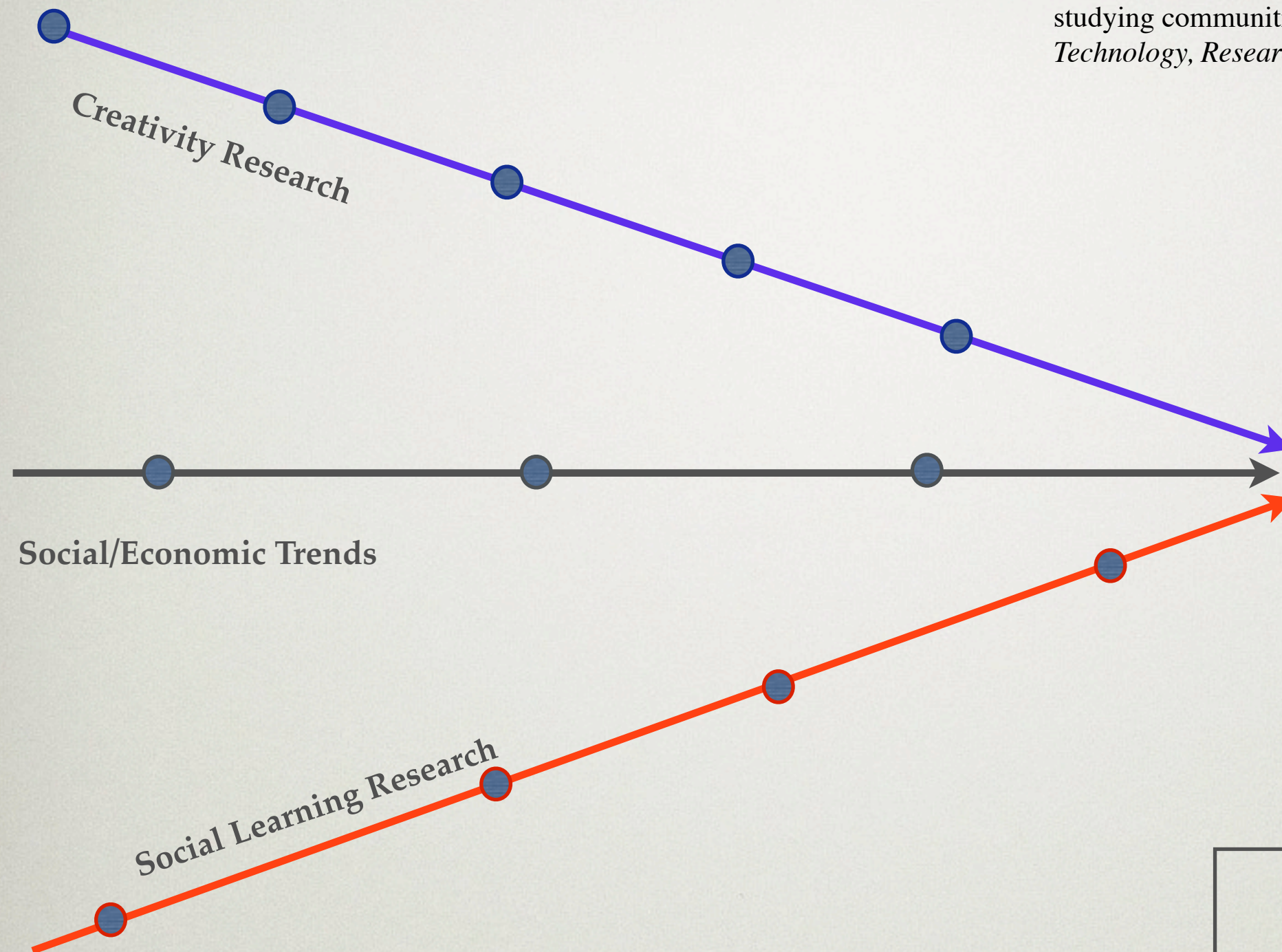
Community of Practice	Community of Innovation
	
Stable	Dynamic
Present	Distributed
Trajectories	Shifting roles
Learning to do	Learning by creating
Emergent	Deliberately designed
Produces practice	Produces innovations
Crystallized knowledge	Fluid knowledge
Develops competence	Promotes "flow" (learning at the edge of competence)
Asymmetric distribution of expertise	Symmetric distribution of expertise
Motivation: external, top-level	Motivation: hacker ethic
Case study: Insurance claims processors	Case study: IDEO industrial design

Ideas adapted from: Benton & Giovagnoli, 2006; Hakkarainen et al., 2004; Himanen, 2001; Wenger, 1998; and others cited in this paper.

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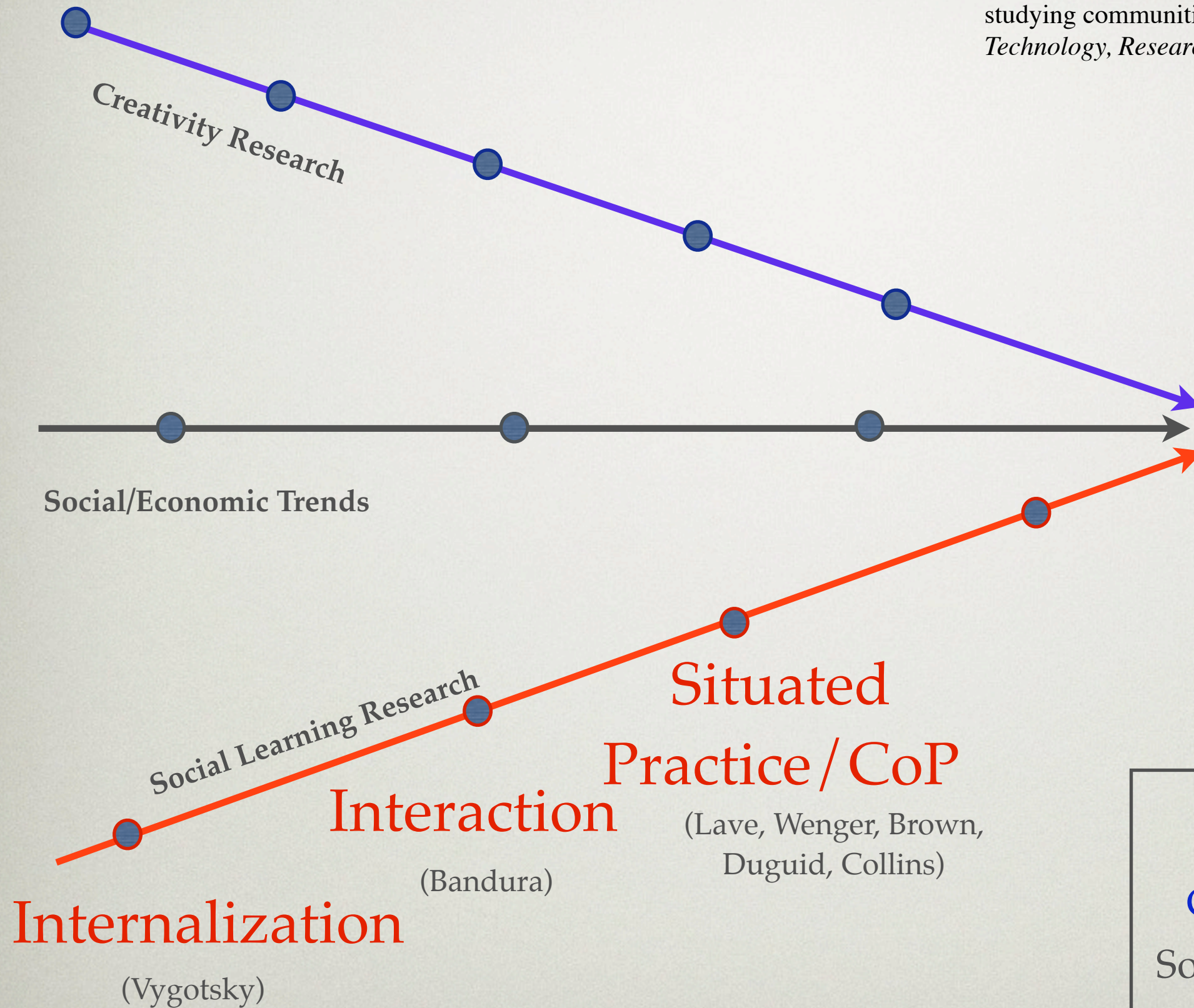
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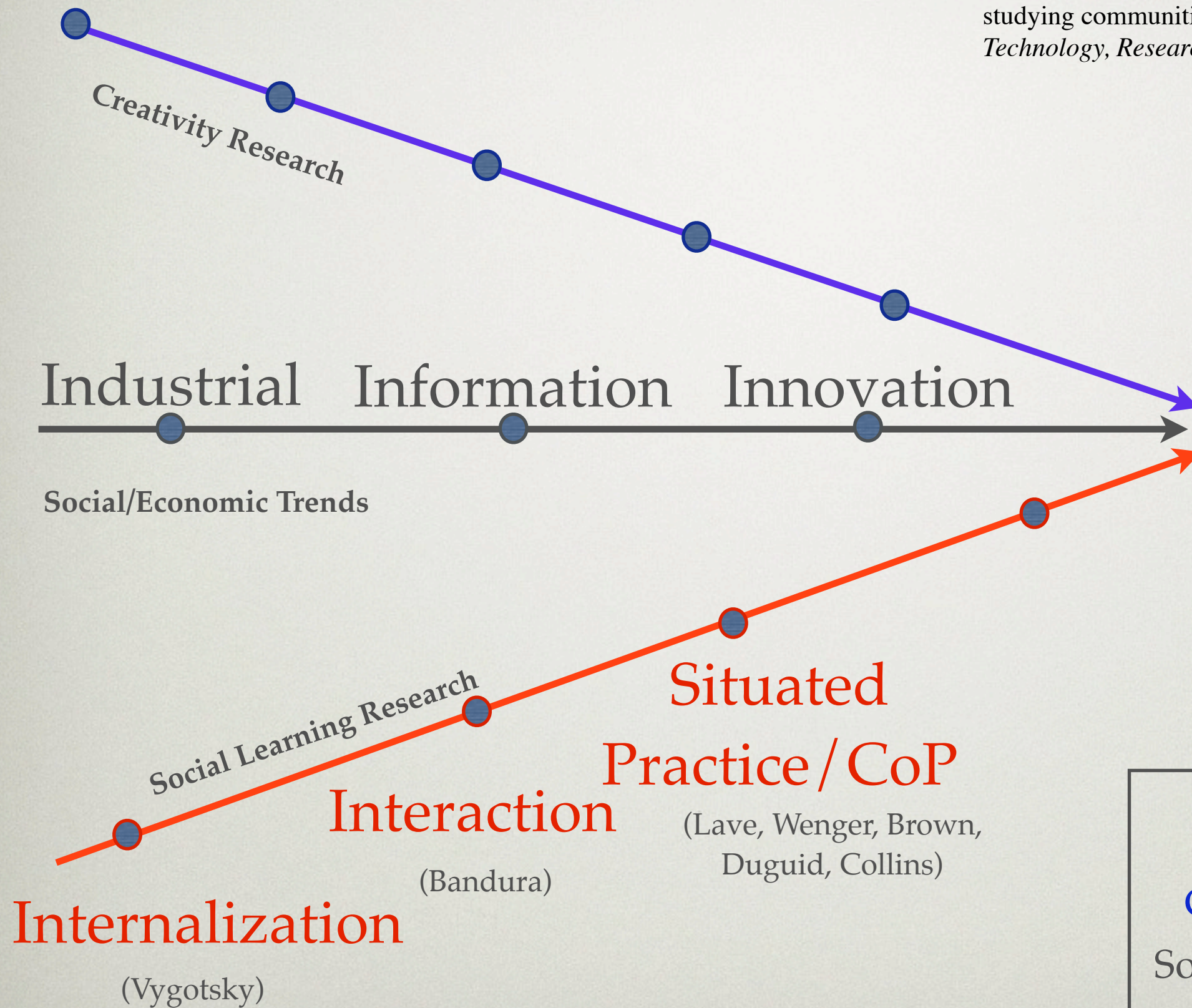
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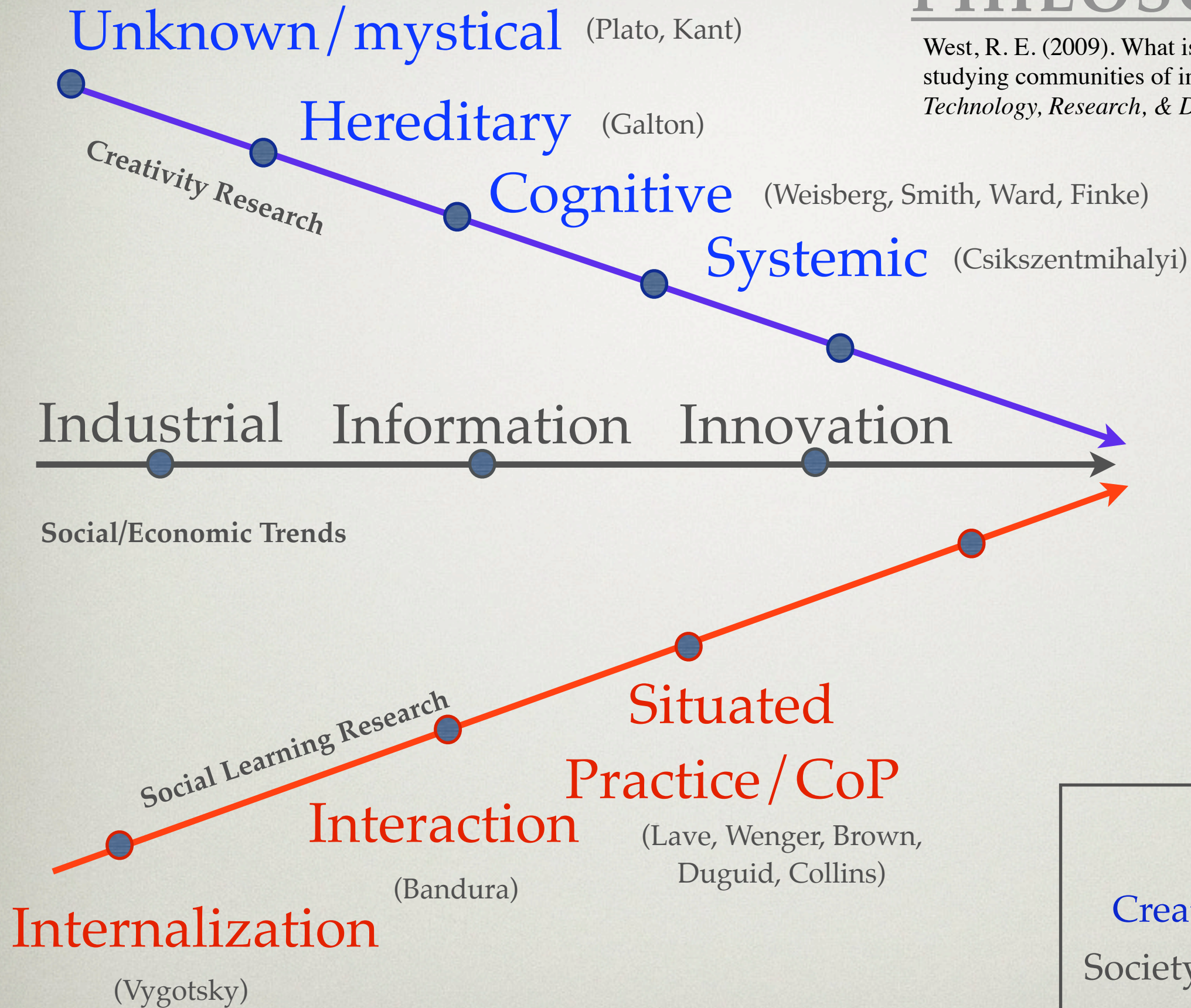
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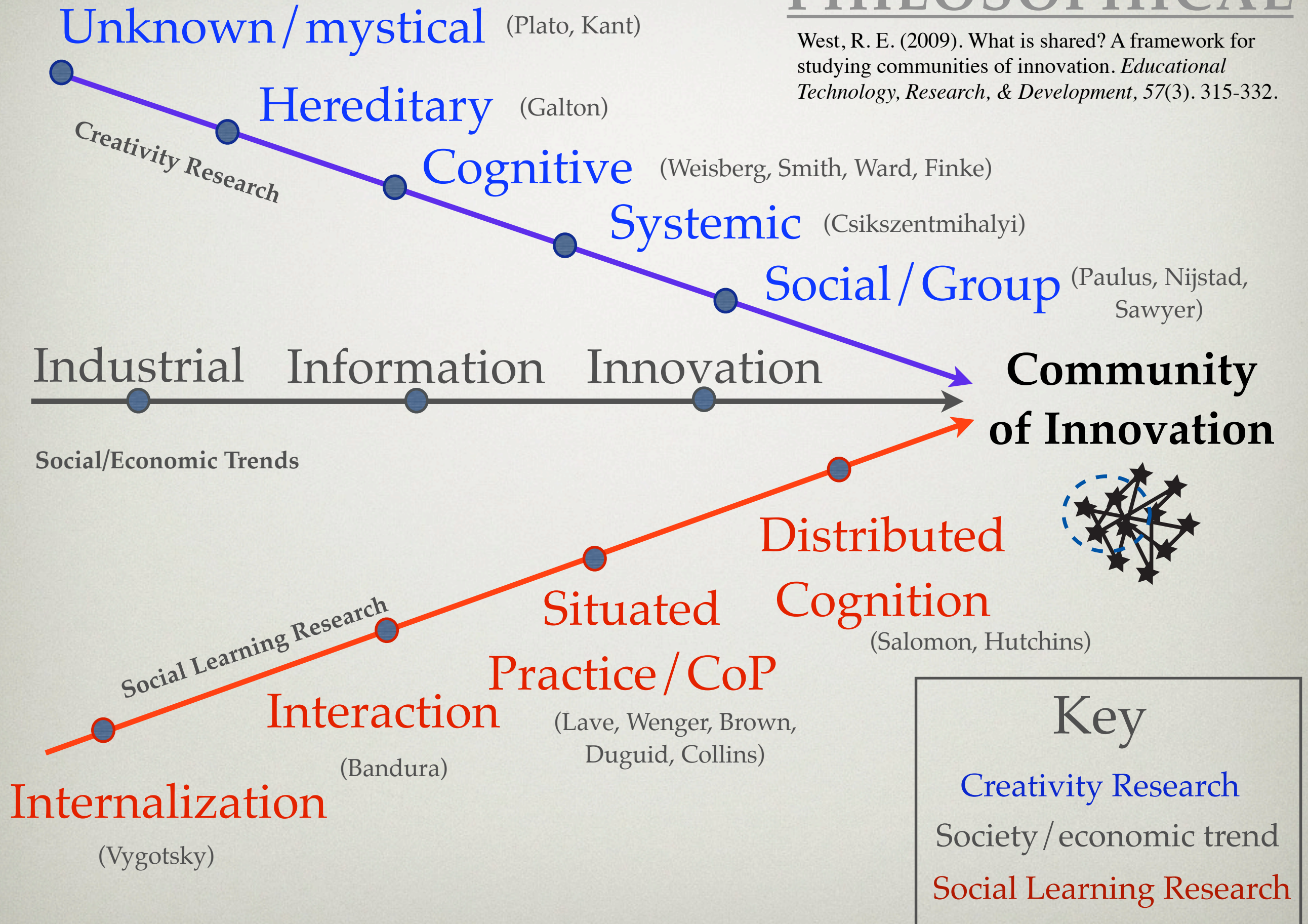
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FIGURE?

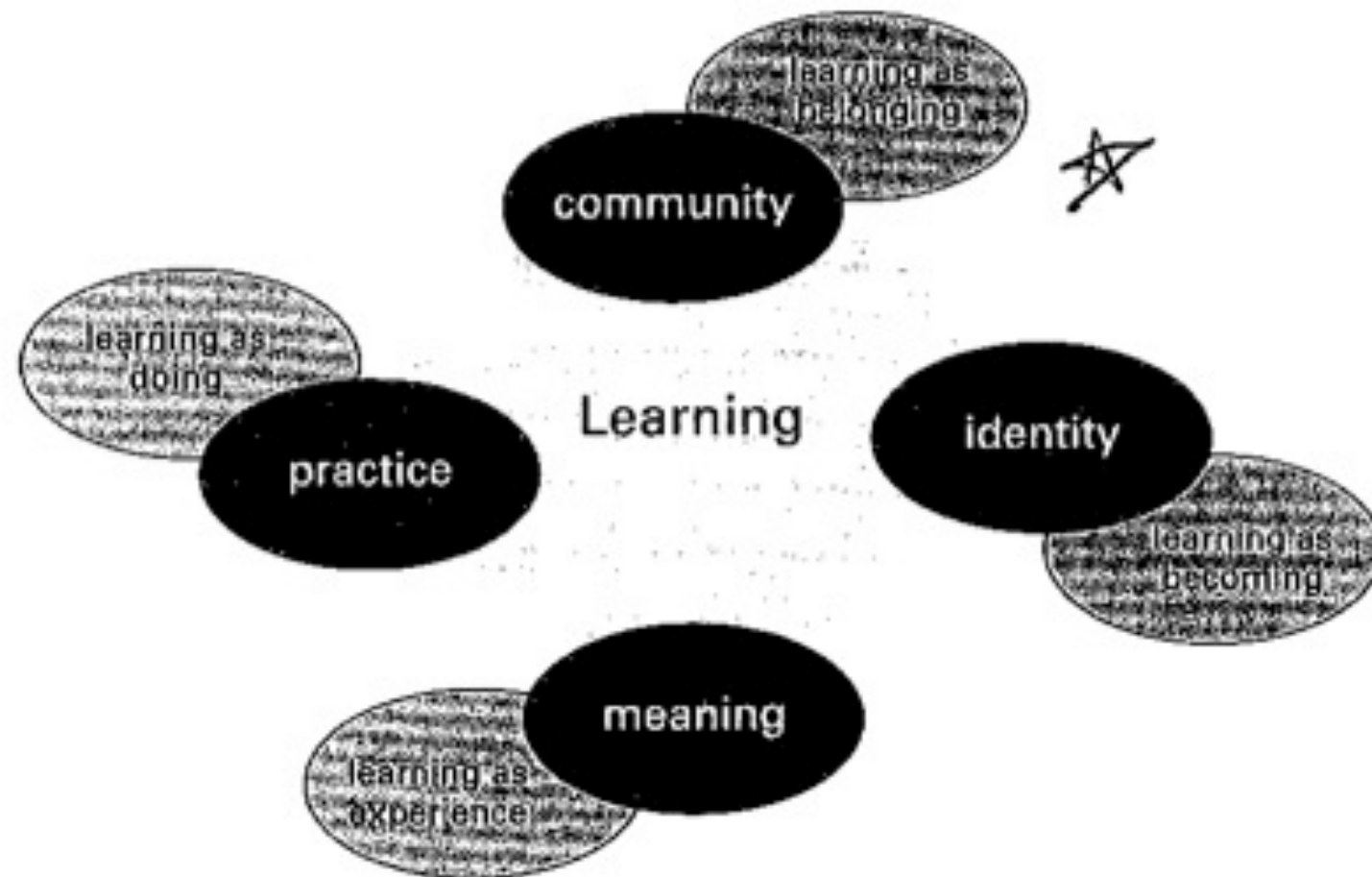
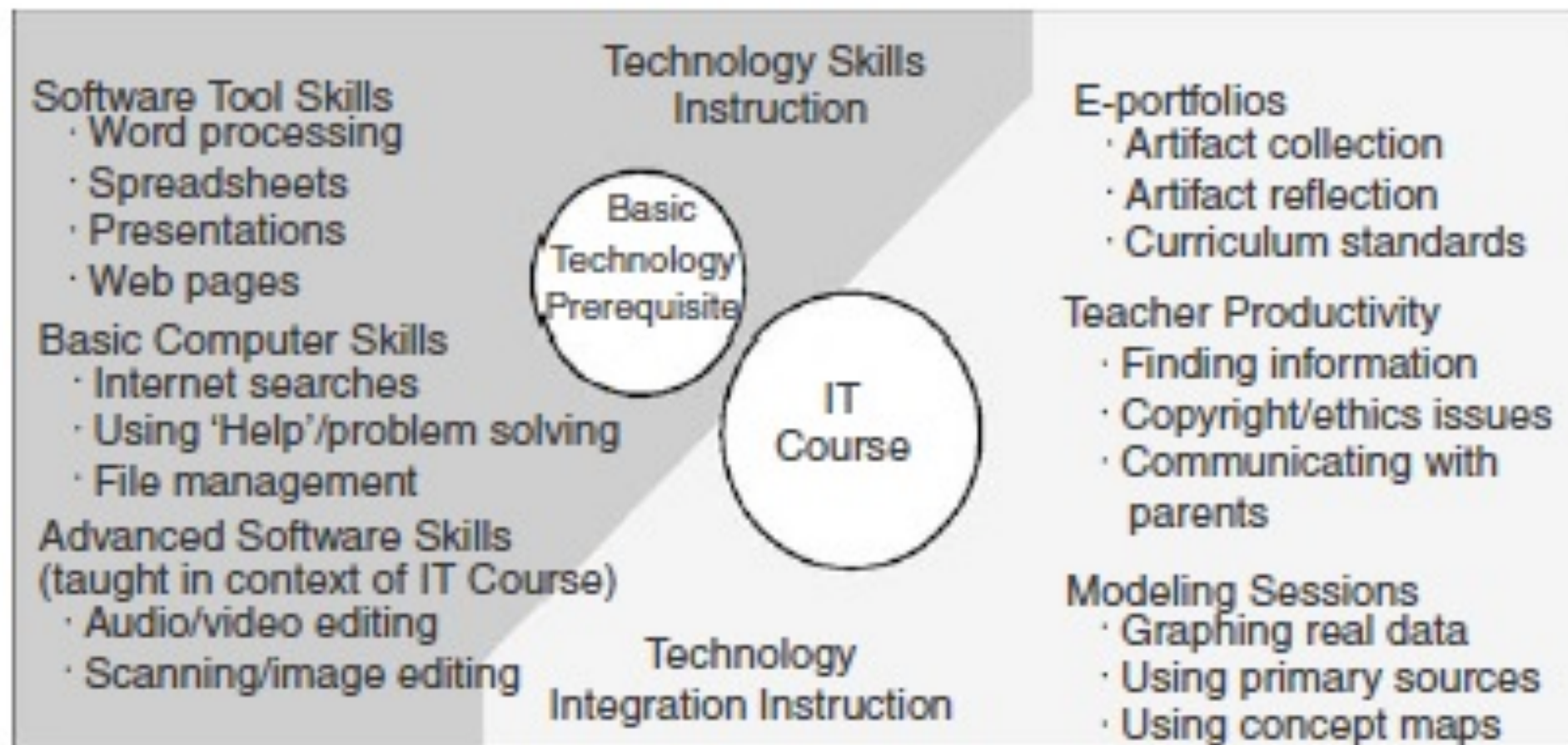


Figure 0.1. Components of a social theory of learning: an initial inventory.

Wenger, E. (1998).
Communities of Practice

FIGURE 5. The plan to implement a technology prerequisite to cover basic technology skills instruction.



Graham, C. R., Culatta, R., Pratt, M., & West, R. E. (2004). Redesigning the teacher education technology course to emphasize integration. *Computers in the Schools*, 21(1/2), 127-148.

DRAWING?

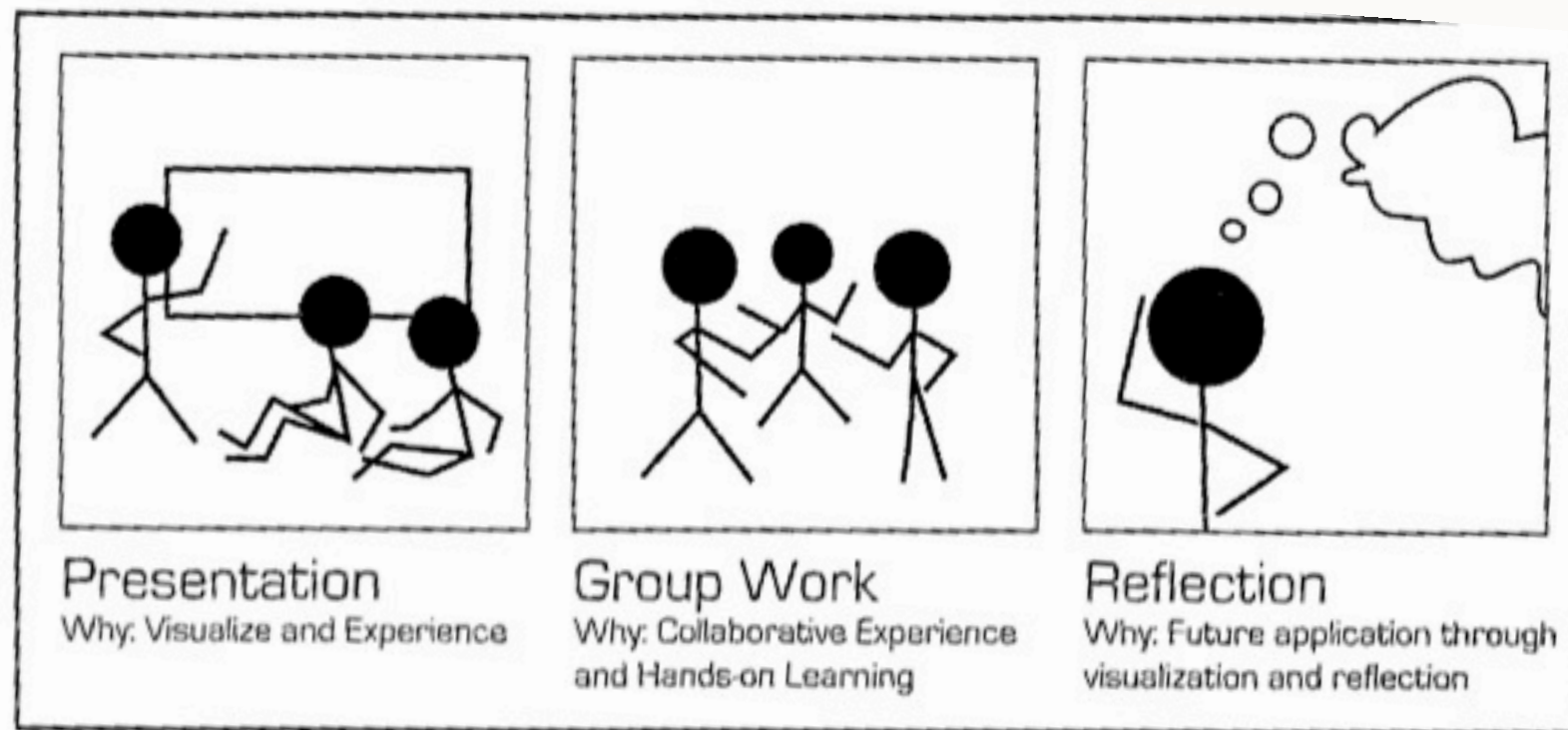


Figure 2. BYU's method for modeling technology integration includes three phases.

West, R. E. (2005). Thesis.

FOR NEXT TIME

- No class next week!
 - I'll be in my office if you want to talk
- Next class is about the writing stage
- We'll also talk about publishing / peer review (panel on the 11th)
- Read your texts related to writing up a lit review
- Group 2's Lit Review analysis

ADDITIONAL SOURCES

- Cooper, H. (1998). *Synthesizing research: A guide for literature reviews*. Thousand Oaks: Sage.
- Pan, M. L. (2008). *Preparing literature reviews: Qualitative and quantitative approaches* (3rd Ed.). Glendale, CA: Pryczak Publishing.
- Galvan, J. L. (2009). *Writing Literature Reviews*. Glendale, CA: Pryczak. (chapters 10 & 14).
- Hart, C. (1998). *Doing a literature review: Releasing the social science research imagination*. Thousand Oaks, CA: Sage.