
Intro to Learning Sciences

Lecture 14: September 18, 2025

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Reflection and Recap for midsem

- 1) Expansive learning - contradictions, cyclical learning process
- 2) Challenges: thinking of boundary crossing processes - involving all stakeholders in identifying contradictions
- 3) Schema: mental representation
- 4) Signs and tools: signs = cues?
- 5) Meaning-making: making sense of your environment through signs and symbols; language, developing expertise and belonging, identity; own understanding, own experience, how we perceive it
- 6) Constructionism - abstract vs concrete knowledge, what is meaningful?

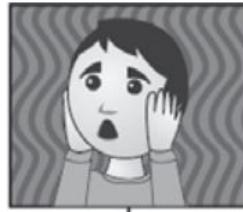
Contrasting Learning Theories

Question	Constructivism	Constructionism	Sociocultural theory	Social/ Situated learning	Expansive learning
Who is learning?					
Why do they learn?					
What do they learn?					
What does it mean to learn?					
How do they learn?					

How do the learning theories reconcile?



Which theory?



$+ 10^{-2}$

$+ 10^{-1}$ to 10

10^2 to 10^4

10^5 to 10^7

$+ 10^8$

milliseconds
& below

BIOLOGICAL

seconds

COGNITIVE

minutes
to hours

RATIONAL

days to
months

SOCIOCULTURAL

years &
beyond

ORGANIZATIONAL

Constructivist
Constructionist
Sociocultural

Situated/
Sociocultural
Expansive

Expansive
Learning Pathways