

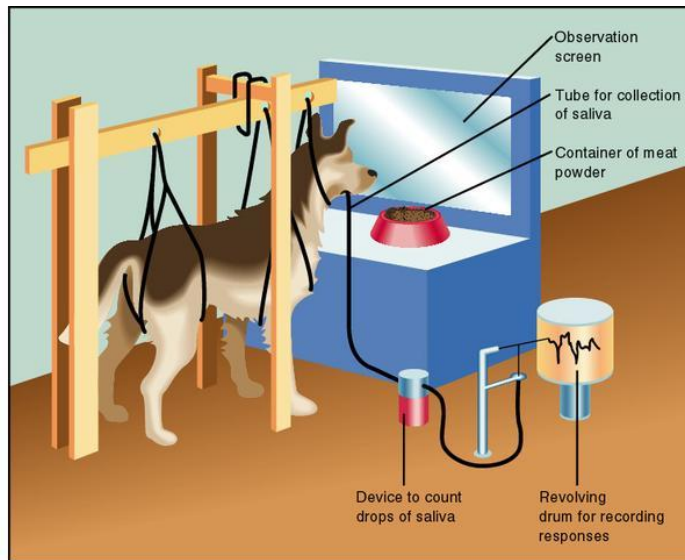
Learning theories their implications for teaching

Beverly Trayner and Etienne Wenger

REPARIS EduCoP
Vienna, November 29, 2010

Behaviorism

Principle: stimulus-response-reinforcement

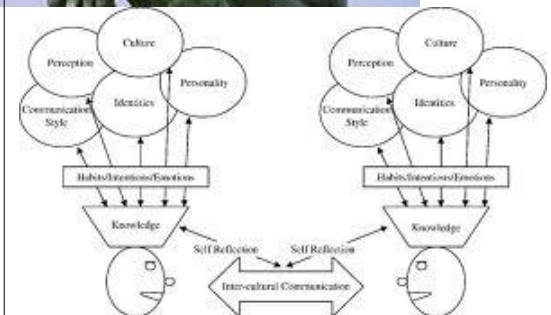
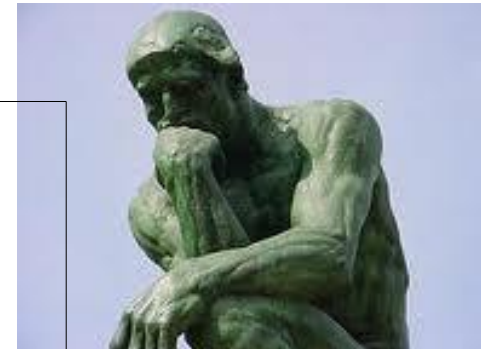
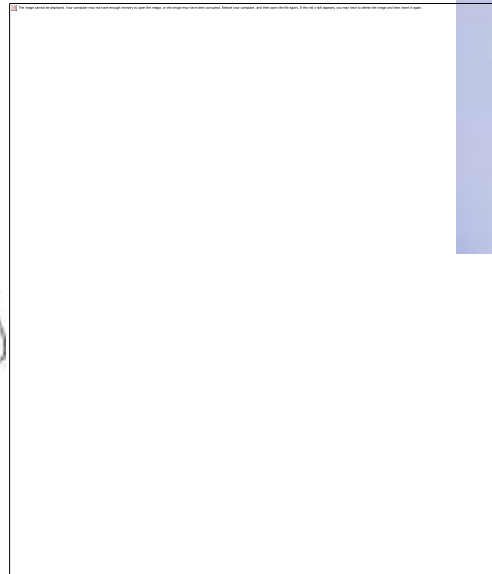


Pedagogy: positive and negative reinforcement, practice & drill, demonstrations, memorization

Cognitivism

transmission

Principle: the mind contains inspectable knowledge structures
→ internal knowledge structures can be communicated



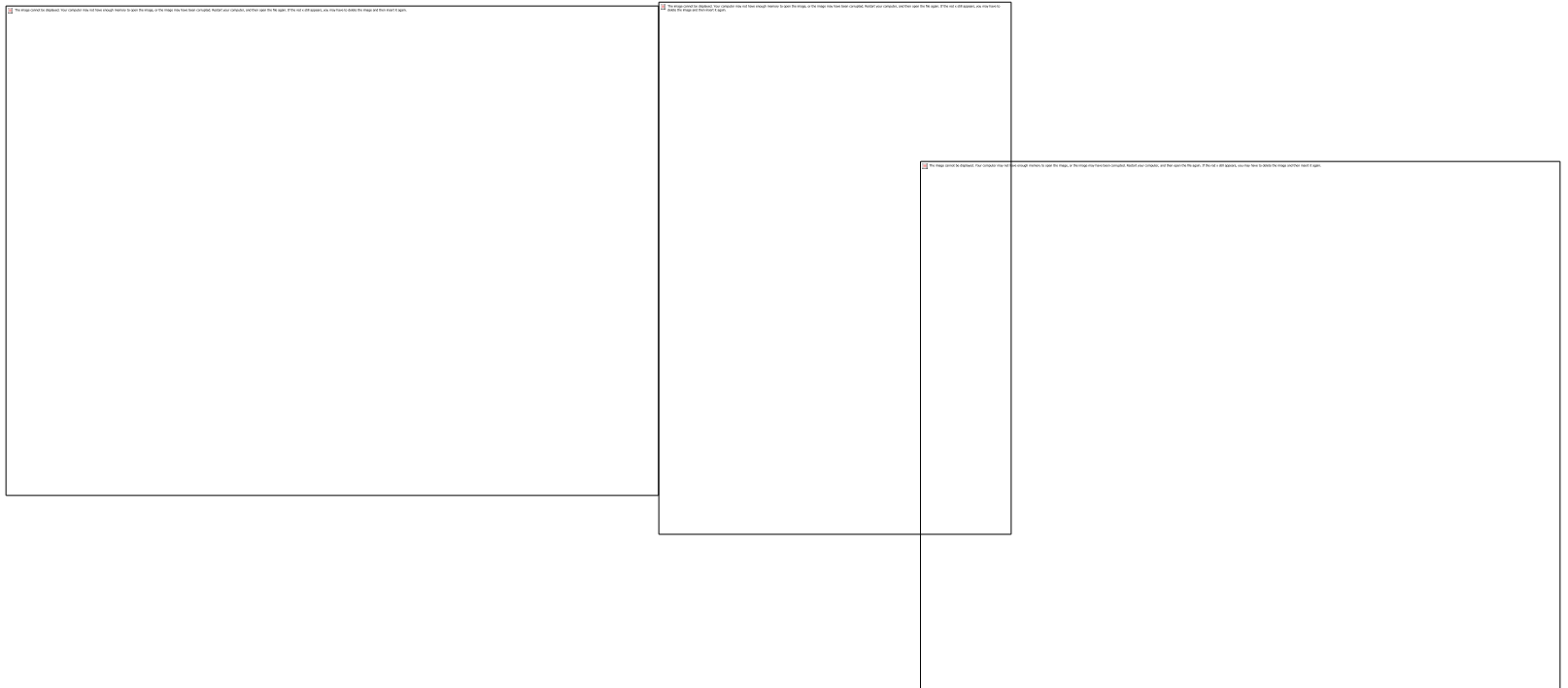
Pedagogy: presentation, explanation, reading, conversation

Cognitivism

constructivism

Principle: the mind contains inspectable knowledge structures

→ learners build their own internal knowledge structures

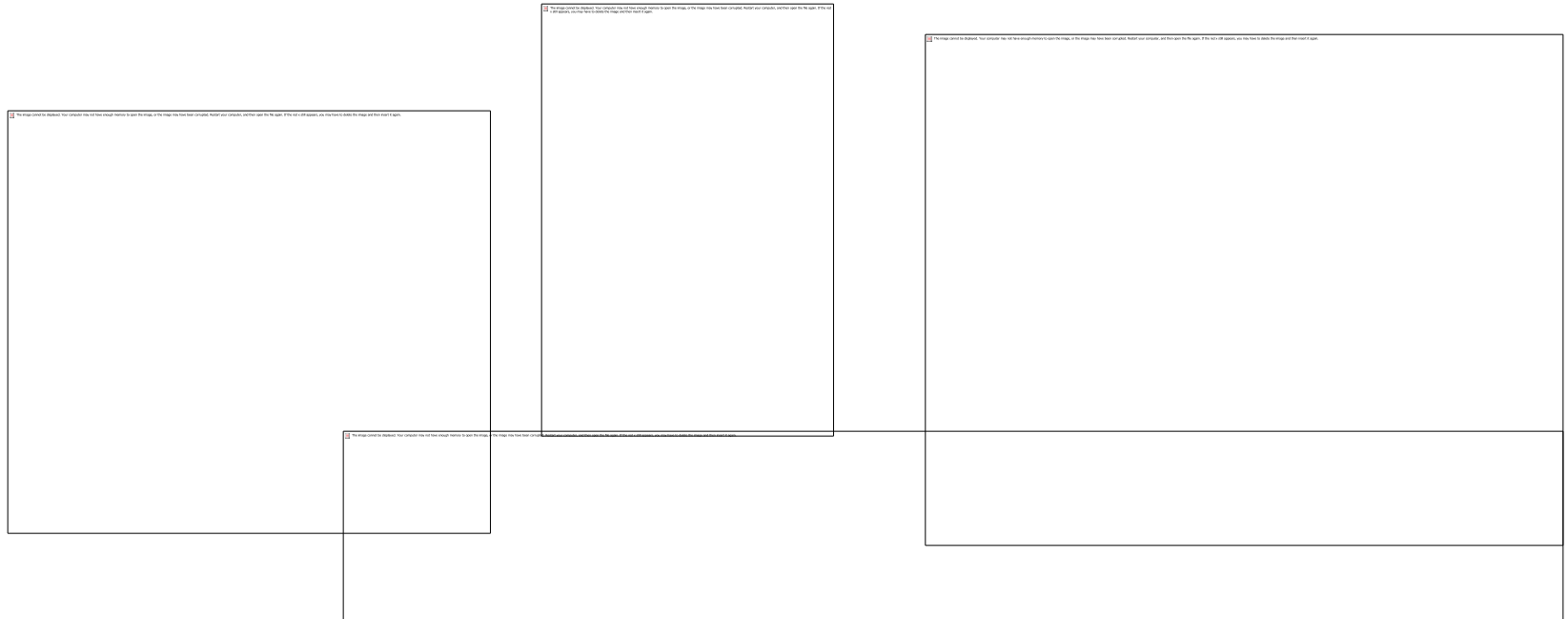


Pedagogy: discovery, simulation, games, problem-solving

Social learning theory

learning

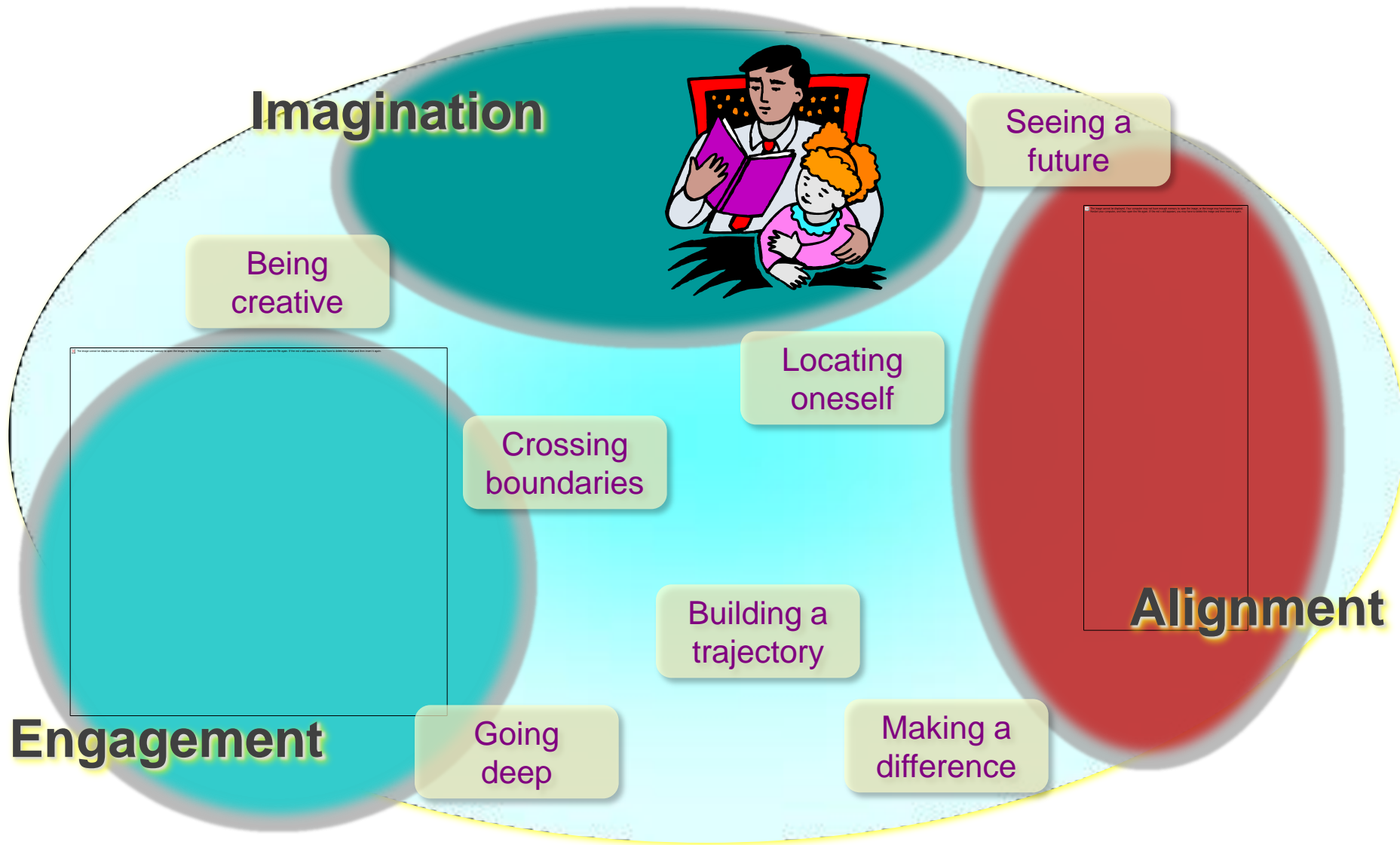
Principle: learning is a matter of meaningful participation



Pedagogy: peripheral participation, visits, realistic challenges, engagement with masters, peer-to-peer

Finding oneself in a landscape of practice

modes of identification



Typical application of selected learning theories

	Content	Testing	CPD
Behaviorism <i>Stimulus-Response</i>	<ul style="list-style-type: none"> Fixed body of knowledge Rewards for getting it right Drill, practice, drill Excercises 	<ul style="list-style-type: none"> Correct answer No mistakes Multiple choice Observable behavior Objective testing 	<ul style="list-style-type: none"> Training followed by testing to ensure input has been learned Memorizing facts and rules
Typical language	<i>get students to... rewards and punishments</i> <i>correct mistakes instill knowledge</i> <i>train demonstrate correct behaviour</i> <i>measurable success</i>		
Transmission Cognitivism <i>Communication</i>	<ul style="list-style-type: none"> Presentation Explanation Content rich Reading 	<ul style="list-style-type: none"> Know the explanation Know definitions Apply correct procedure to solve problems 	<ul style="list-style-type: none"> Lectures, seminars Listen to experts Read material
Typical language	<i>give a lecture demonstrate understanding of the material</i> <i>give the material acquire a body of knowledge</i>		
Cognitive Constructivism <i>Knowledge building</i>	<ul style="list-style-type: none"> Reconstruct the knowledge Develop personal beliefs and theories Guided discovery Simulation 	<ul style="list-style-type: none"> Generate explanation Evaluate learning outcomes Problem solving 	<ul style="list-style-type: none"> Problem solving Reflect on own thought process
Typical language	<i>elicit discussion collaboration shared meanings process</i> <i>multiple truths, perspectives and realities</i> <i>demonstrate understanding of the principles</i>		
Social Learning Theory <i>Meaningful inquiry</i>	<ul style="list-style-type: none"> Negotiate relevance of knowledge Context matters Study tours Knowledge in practice 	<ul style="list-style-type: none"> Complete a project Reflection (journal) Portfolio 	<ul style="list-style-type: none"> Development of the practice Reflection in, on and for practice Connected to a global community
Typical language	<i>participate engage in experience imagination independent thought</i>		