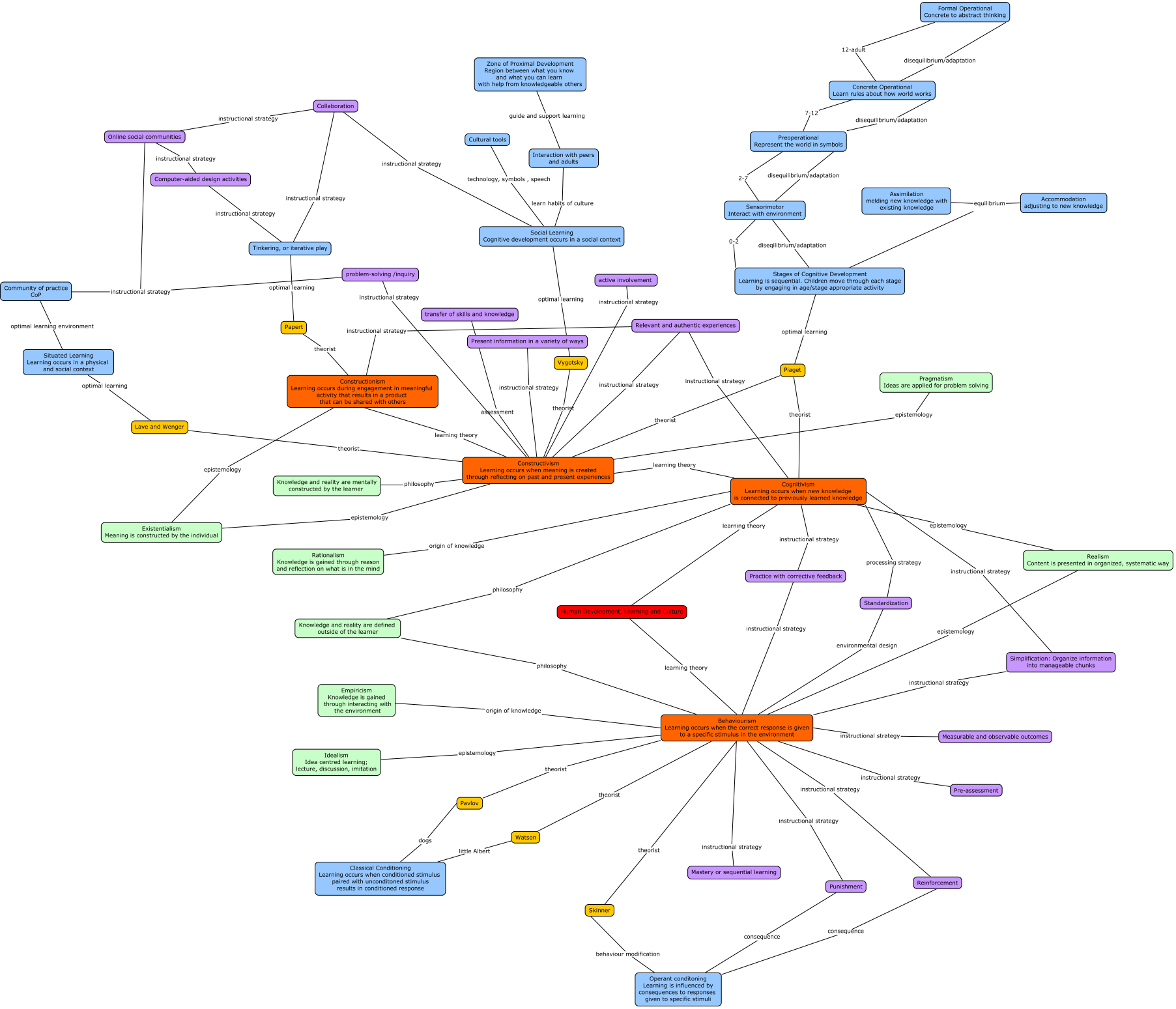
Formal Operational
Concrete to abstract thinking
12-adult
disequilibrium/adaptation
Concrete Operational
Learn rules about how world works
7-12
disequilibrium/adaptation
Preoperational
Represent the world in symbols
2-7
disequilibrium/adaptation
Sensorimotor
Interact with environment
0-2
diseqilibrium/adaptation
Stages of Cognitive Development
Learning is sequential. Children move through each stage
by engaging in age/stage appropriate activity
optimal learning
Assimilation
melding new knowledge with
existing knowledge
equilibrium
Accommodation
adjusting to new knowledge
Zone of Proximal Development
Region between what you know
and what you can learn
with help from knowledgeable others
guide and support learning
Interaction with peers
and adults
Cultural tools
technology, symbols , speech
learn habits of culture
Social Learning
Cognitive development occurs in a social context
optimal learning
Collaboration
instructional strategy
Online social communities
instructional strategy
Computer-aided design activities
instructional strategy
instructional strategy
instructional strategy
Tinkering, or iterative play
optimal learning
problem-solving /inquiry
instructional strategy
Community of practice
CoP
instructional strategy
optimal learning environment
Situated Learning
Learning occurs in a physical
and social context
optimal learning
Lave and Wenger
theorist
Papert
theorist
Constructionism
Learning occurs during engagement in meaningful
activity that results in a product
that can be shared with others
learning theory
epistemology
Existentialism
Meaning is constructed by the individual
active involvement
instructional strategy
transfer of skills and knowledge
instructional strategy
Relevant and authentic experiences
Present information in a variety of ways
Vygotsky
instructional strategy
assessment
theorist
instructional strategy
instructional strategy
instructional strategy
Constructivism
Learning occurs when meaning is created
through reflecting on past and present experiences
learning theory
Knowledge and reality are mentally
constructed by the learner
philosophy
epistemology
Piaget
theorist
Pragmatism
Ideas are applied for problem solving
epistemology
Cognitivism
Learning occurs when new knowledge
is connected to previously learned knowledge
learning theory
instructional strategy
processing strategy
epistemology
instructional strategy
Realism
Content is presented in organized, systematic way
Practice with corrective feedback
Standardization
Simplification: Organize information
into manageable chunks
instructional strategy
environmental design
epistemology
instructional strategy
Rationalism
Knowledge is gained through reason
and reflection on what is in the mind
origin of knowledge
philosophy
Knowledge and reality are defined
outside of the learner
philosophy
Human Development, Learning and Culture
learning theory
Empiricism
Knowledge is gained
through interacting with
the environment
origin of knowledge
Behaviourism
Learning occurs when the correct response is given
to a specific stimulus in the environment
instructional strategy
Measurable and observable outcomes
Idealism
Idea centred learning;
lecture, discussion, imitation
epistemology
instructional strategy
Pre-assessment
instructional strategy
instructional strategy
instructional strategy
theorist
Pavlov
theorist
Watson
dogs
little Albert
Classical Conditioning
Learning occurs when conditioned stimulus
paired with unconditoned stimulus
results in conditioned response
theorist
instructional strategy
Mastery or sequential learning
Punishment
Reinforcement
Skinner
consequence
consequence
behaviour modification
Operant conditoning
Learning is influenced by
consequences to responses
given to specific stimuli