

Perspectives to learning

UiODoc Pedagogical seminar

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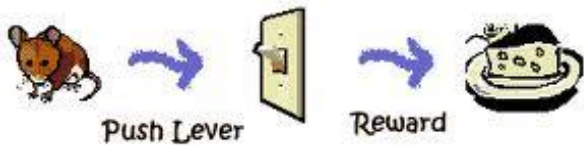
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<http://www.youtube.com/watch?v=OwEjb9gXr2k>

Traditional perspectives to learning

- Behaviourism
- Cognitivism
- Constructivims
- Sociocultural theories

- Other perspectives



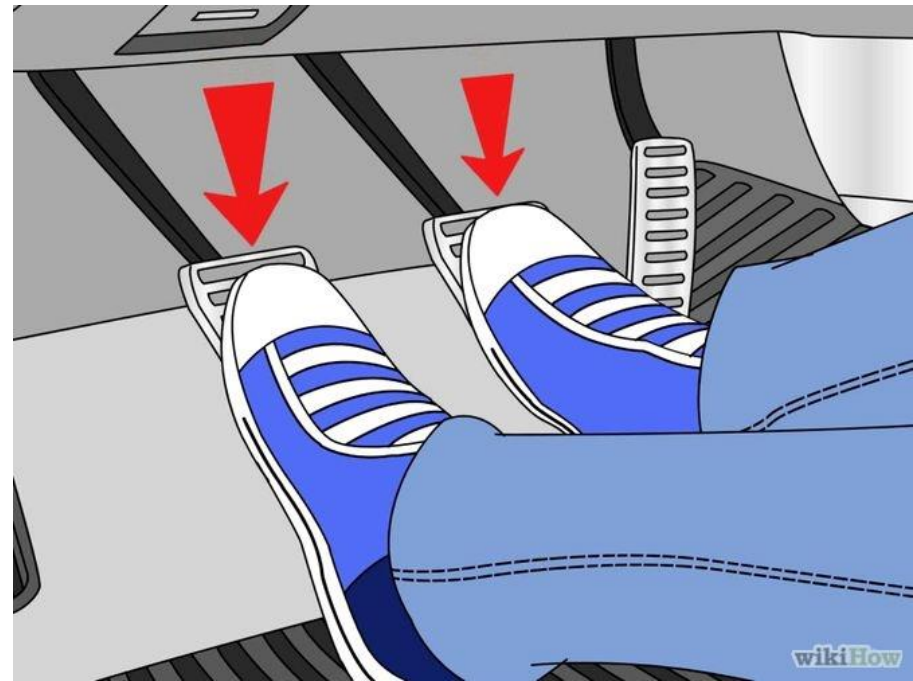
Behaviourism

- Main focus – behaviour
- Learning = a (relatively) lasting **change in behaviour**
- View of the learning process (e.g., Skinner, Tolman, Guthrie, 1930/40s)
 - Stimulus-response associations
 - Respons to stimulae + repeated stimulae leads to a behaviour
- **Motivation:** extrinsic – positive/negative reinforcement
- Learning through
 - Learning routine tasks, repetition
 - Design of instructional sequences, step-by-step
- Teacher-dominated



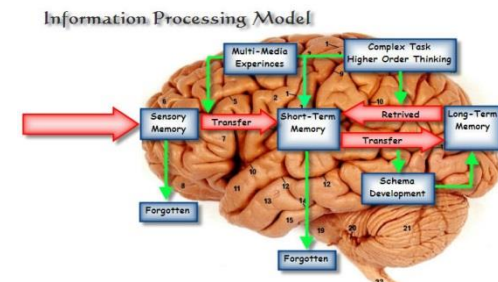
Learning situations

- Learning procedures
 - Driving skills
 - Steps in setting up an experiment
- Support skills
 - Using software
- *Points of criticism*
 - *Mechanistic*
 - *Instrumental conditioning*



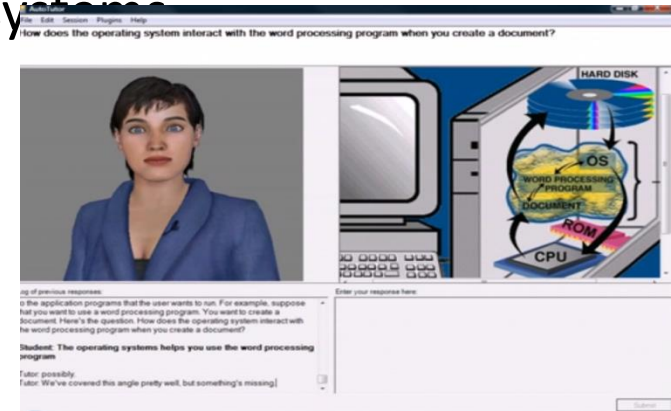
Cognitivism

- Point of departure: intelligence, cognitive abilities
- Learning = change in **mental** behaviour, conceptual growth
- View of learning process: mental processing
- Learning through
 - Enabling the student to acquire strategies to process information
 - Conceptual understanding
 - Memorizing (short/long term; procedural/declarative)
 - Thinking/reasoning; Problem solving
- Motivation: intrinsic
- Teacher-centered



Learning situations

- Learning and teaching forms
 - Rehearsal, visuals, reviews/summaries, mind mapping, mnemonics
 - Scripted instruction
 - Lectures
 - Seminars
 - Guided learning: simulations, intelligent systems
- Points of criticism
 - Rather exclusive focus on content
 - Passive on the student side
 - Abstract knowledge - human mind works like a computer
 - (Too) Standardized assessment



Constructivism



- Point of departure: active construction
- Learning = change, growth in understanding
- View of learning process: active participation
 - Understanding, responding AND **modifying** knowledge (see Piaget, 1968)
 - Learners' needs are addressed
- Learning through
 - Manipulation of (physical) objects
 - Progressive development
 - Engagement with/in knowledge, ideas, activities
- Student-centered
- Motivation: intrinsic, self-regulation



Learning situations

- Learning and teaching forms
 - Individual (authentic) projects
 - Interpretative assignments
- *Criticism*
 - *Lack of structured instruction*
 - *Ultimate trust in the learner's capacity, motivations, ability to organize own learning*
 - *Unclear how to assess*
 - *Individual process*

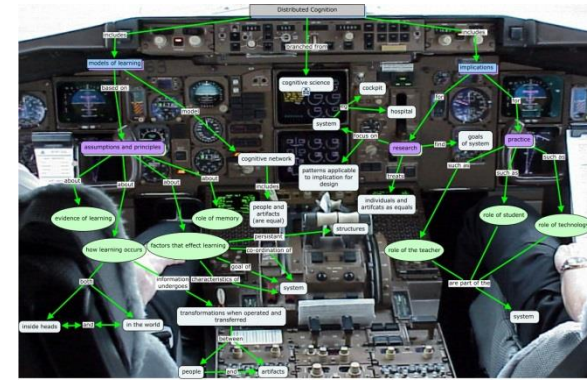
Sociocultural perspectives

- Point of departure: we live in a *social, cultural, material, historical* environment (Säljö, 2010; William et al., 2013)
- Learning = **intelligent behaviour realized in interaction with this context/environment** (e.g., Vygotsky, Dewey)
- View of learning process: development as a **knowledgeable & involved member** of the community
- Learning through
 - Participation and engagement in various activities
 - Interaction with peers, *environment*
 - Identity development
- Student/group-oriented
- Motivation: intrinsic



Learning situations

- **Situated learning**
 - ***Project-, problem-, case-based learning***
- About participation engagement in ‘authentic’ practices
- Learning and teaching forms
 - Participation in communities of practice
 - Internships



Learning situations

Research-based learning in higher education

- Learning through conducting scientific research
 - Academic scholarship
- Inquiry-based learning (IBL) (Spronken.Smit et al., 2012)
 - Does **not** necessarily mean learning to BECOME a researcher; but to think and work LIKE a researcher = *inquire*
 - Participation/involvement/engagement in applied work with knowledge (Damşa & Nerland, forthcoming)

'Contemporary' perspectives to learning

"AUTHENTIC" USE OF THE OBJECTS

Generating
knowledge, ideas,
objects



Participation
in practices

Transmission
of knowledge



INDIVIDUAL SUBJECTS

MEDIATING
TOOLS



DEVELOPING
SHARED OBJECTS



LEARNING
COMMUNITY

Technology-enhanced learning

- Learning management systems (LMS)
- Virtual (simulation) environments
- Webinars, MOOCs
- Blended learning (Graham & Wendy, 2013)

Sum up: perspectives to learning

- **Behavioristic**
 - *A change in behaviour* and consolidation of the new behaviour, through programmed instruction, repetition and reward systems
- **Cognitivist**
 - *Acquisition, understanding and storage of new knowledge* increasing in complexity, through information processing mechanisms
- **Constructivist**
 - *Construction of new understanding/knowledge* by the individual, through active manipulation and modification/re-organization of schema
 - **Social-constructivism**: construction of new understanding *and ways of doing* by individual together with others
- **Sociocultural**
 - *Intelligent behaviour and development of knowledge and identity through participation*, interaction with others, (intellectual) tools, resources within a cultural, historical & material context
- ***Transmission vs. Participation vs Creation/Construction of knowledge***

Implications for learning design and teaching

	Aquisition	Participation	Knowledge creation
<i>Knowledge is viewed as</i>	Property, possession, can be aquired	Collective and distributed	Collective, embedded, subjectively (re)constructed
<i>Knowing is about</i>	Having, possessing knowledge	Becoming an expert participant	Participating but also producing knowledge
<i>Goal of learning</i>	Individual enrichment	Community building	Knowledge construction for individual and community`s purposes
<i>Learning is about</i>	Knowledgge aquisition	Becoming a competent participant	Becoming an engaged participant in activities, capable of contributing K
<i>Student seen as</i>	Recipient, consumer, (re)constructor of K	Peripheral participant	Active participant, with own agency
<i>Role of the teacher/ instructor</i>	Providing knowledge, information, facilitating and securing understanding	Expert participant, preserver of practice, makes knowledge and rules for participation accessible	Preserver of knowledge, makes rules for participation accessible, facilitates knowledge construction and identity development

Adapted based on Sfard (1998) and Paavola, Lipponen and Hakkarainen (2004)

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