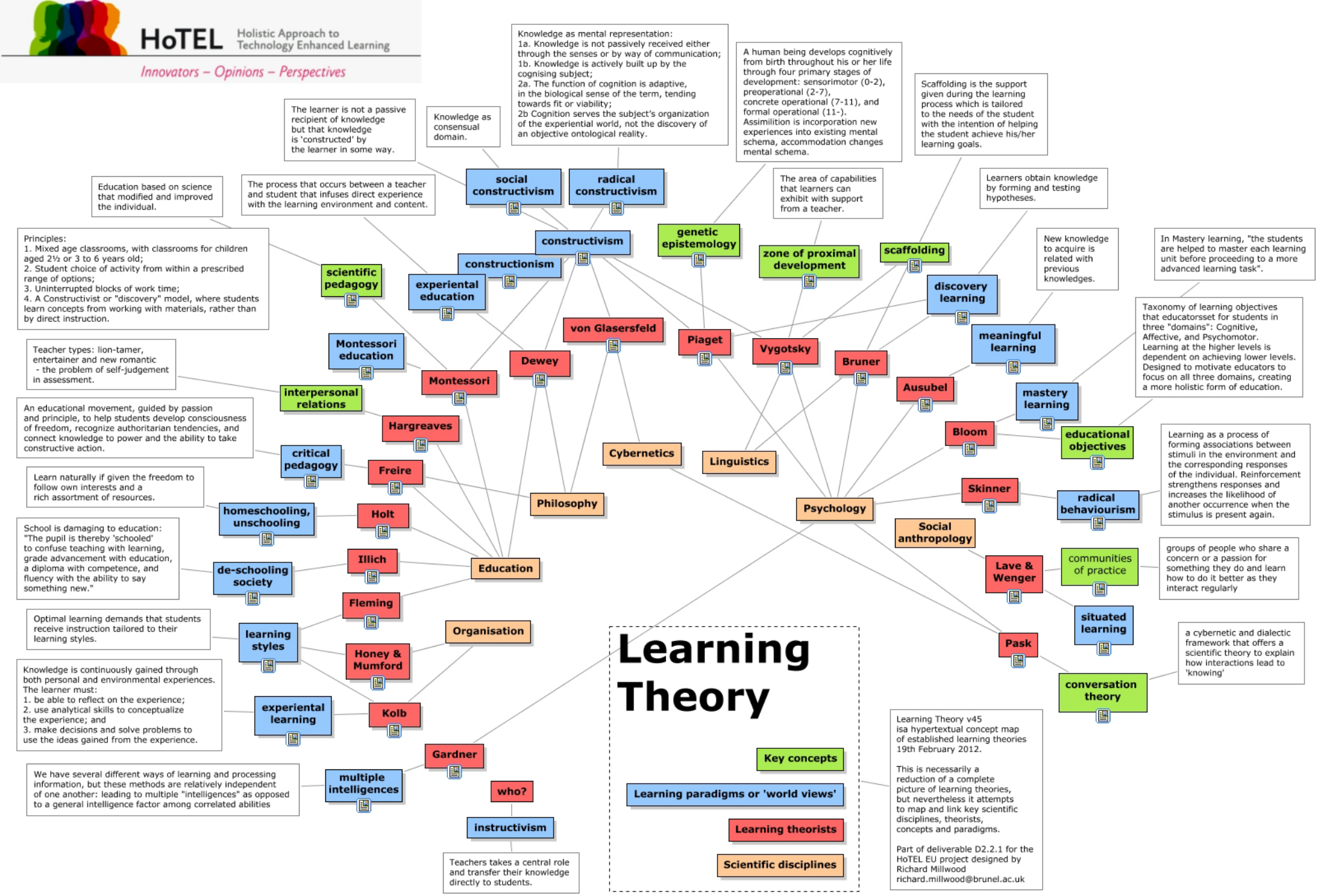
HoTEL
Holistic Approach to Technology Enhanced Learning
Innovators – Opinions – Perspectives
Learning Theory
Key concepts
Learning paradigms or 'world views'
Learning theorists
Scientific disciplines
Learning Theory v45 isa hypertextual concept map of established learning theories 19th February 2012.
This is necessarily a reduction of a complete picture of learning theories, but nevertheless it attempts to map and link key scientific disciplines, theorists, concepts and paradigms.
Part of deliverable D2.2.1 for the HoTEL EU project designed by Richard Millwood richard.millwood@brunel.ac.uk
Knowledge as mental representation: 1a. Knowledge is not passively received either through the senses or by way of communication; 1b. Knowledge is actively built up by the cognising subject; 2a. The function of cognition is adaptive, in the biological sense of the term, tending towards fit or viability; 2b Cognition serves the subject's organization of the experiential world, not the discovery of an objective ontological reality.
A human being develops cognitively from birth throughout his or her life through four primary stages of development: sensorimotor (0-2), preoperational (2-7), concrete operational (7-11), and formal operational (11-). Assimilition is incorporation new experiences into existing mental schema, accommodation changes mental schema.
Scaffolding is the support given during the learning process which is tailored to the needs of the student with the intention of helping the student achieve his/her learning goals.
The learner is not a passive recipient of knowledge but that knowledge is 'constructed' by the learner in some way.
Knowledge as consensual domain.
social constructivism
radical constructivism
The area of capabilities that learners can exhibit with support from a teacher.
Learners obtain knowledge by forming and testing hypotheses.
Education based on science that modified and improved the individual.
The process that occurs between a teacher and student that infuses direct experience with the learning environment and content.
constructivism
genetic epistemology
zone of proximal development
scaffolding
Principles: 1. Mixed age classrooms, with classrooms for children aged 2½ or 3 to 6 years old; 2. Student choice of activity from within a prescribed range of options; 3. Uninterrupted blocks of work time; 4. A Constructivist or "discovery" model, where students learn concepts from working with materials, rather than by direct instruction.
scientific pedagogy
constructionism
experiental education
discovery learning
New knowledge to acquire is related with previous knowledges.
In Mastery learning, "the students are helped to master each learning unit before proceeding to a more advanced learning task".
Montessori education
von Glasersfeld
Piaget
Vygotsky
Bruner
meaningful learning
Taxonomy of learning objectives that educatorsset for students in three "domains": Cognitive, Affective, and Psychomotor. Learning at the higher levels is dependent on achieving lower levels. Designed to motivate educators to focus on all three domains, creating a more holistic form of education.
Teacher types: lion-tamer, entertainer and new romantic - the problem of self-judgement in assessment.
Dewey
Montessori
Ausubel
mastery learning
interpersonal relations
An educational movement, guided by passion and principle, to help students develop consciousness of freedom, recognize authoritarian tendencies, and connect knowledge to power and the ability to take constructive action.
Hargreaves
Bloom
educational objectives
Learning as a process of forming associations between stimuli in the environment and the corresponding responses of the individual. Reinforcement strengthens responses and increases the likelihood of another occurrence when the stimulus is present again.
critical pedagogy
Cybernetics
Linguistics
Freire
Learn naturally if given the freedom to follow own interests and a rich assortment of resources.
Philosophy
Skinner
radical behaviourism
homeschooling, unschooling
Holt
Psychology
School is damaging to education: "The pupil is thereby 'schooled' to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new."
Social anthropology
Illich
de-schooling society
Education
Lave & Wenger
communities of practice
groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly
Fleming
Optimal learning demands that students receive instruction tailored to their learning styles.
learning styles
Organisation
situated learning
Honey & Mumford
Pask
a cybernetic and dialectic framework that offers a scientific theory to explain how interactions lead to 'knowing'
Knowledge is continuously gained through both personal and environmental experiences. The learner must: 1. be able to reflect on the experience; 2. use analytical skills to conceptualize the experience; and 3. make decisions and solve problems to use the ideas gained from the experience.
experiental learning
Kolb
conversation theory
Gardner
We have several different ways of learning and processing information, but these methods are relatively independent of one another: leading to multiple "intelligences" as opposed to a general intelligence factor among correlated abilities
multiple intelligences
who?
instructivism
Teachers takes a central role and transfer their knowledge directly to students.