

Mind over Competency

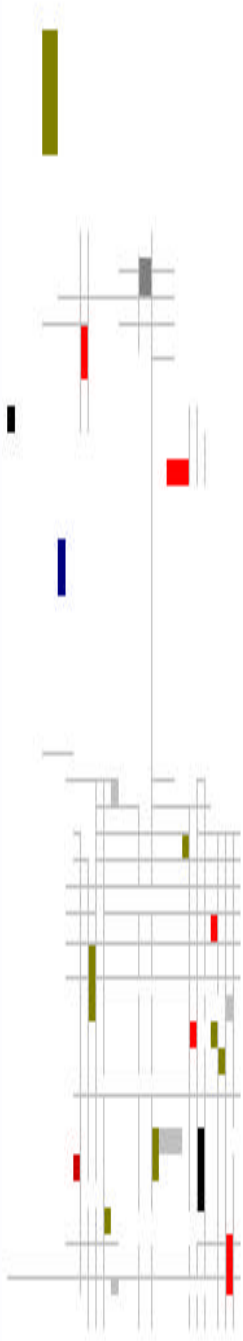
A three-pronged inquiry into the importance of mind. – The scientific mind, a case in point.

AECT, Dallas, TX – November 15, 2002

Jan Visser	-	jvisser@learndev.org
Meira Van der Spa	-	meira@learndev.org
Yusra Laila Visser	-	yvisser@learndev.org

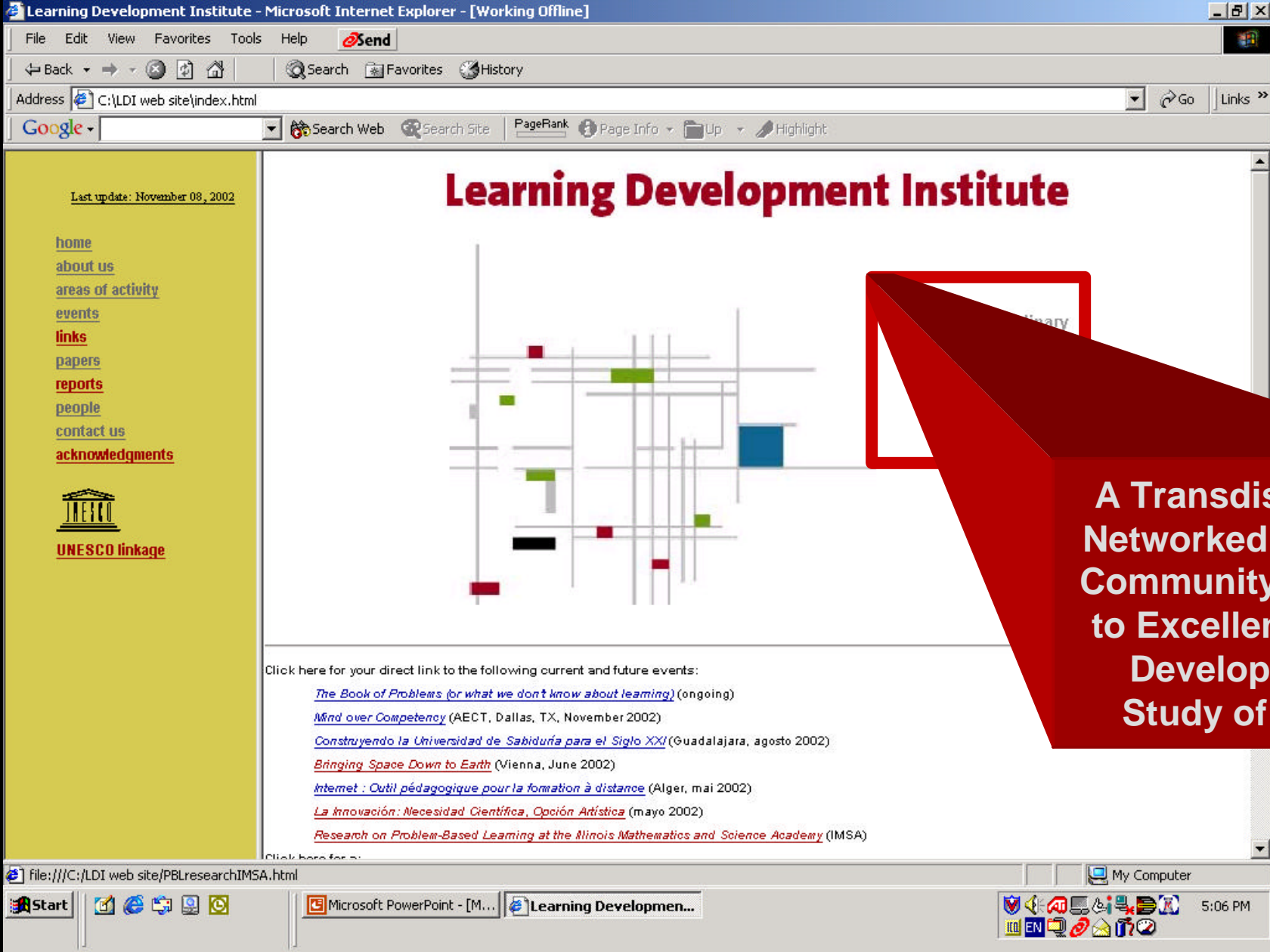
Learning Development Institute

www.learndev.org

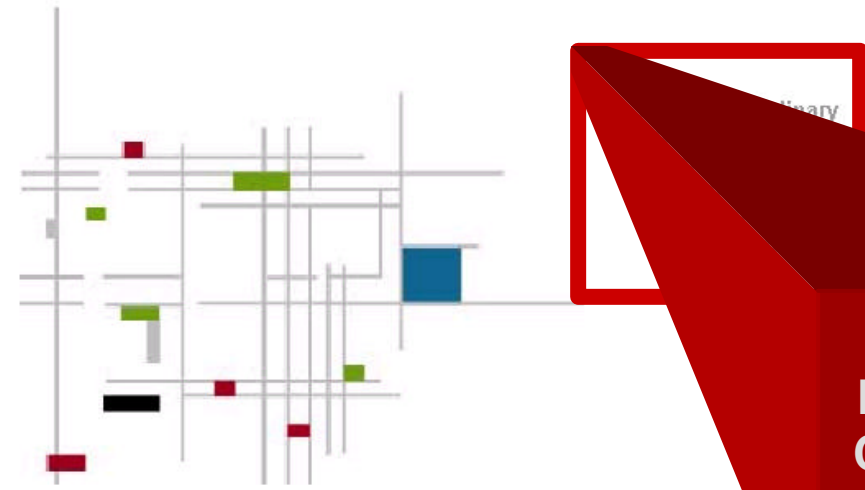


The idea of mind

Jan Visser

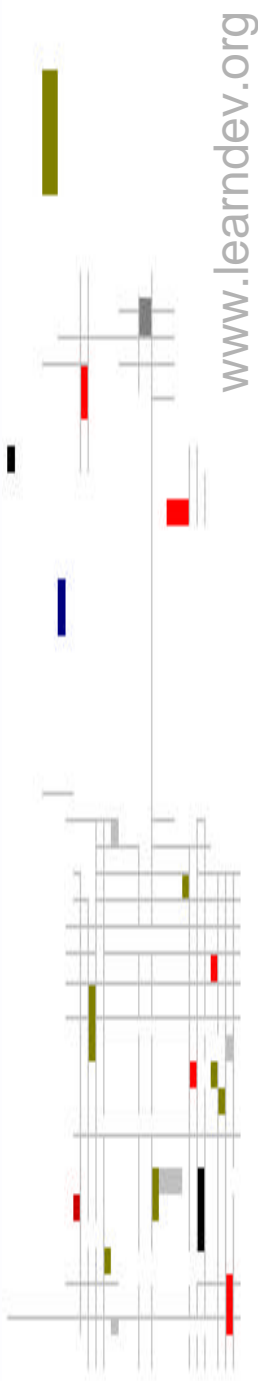


Learning Development Institute



**A Transdisciplinary
Networked Learning
Community Devoted
to Excellence in the
Development and
Study of Learning**

http://www.learndev.org



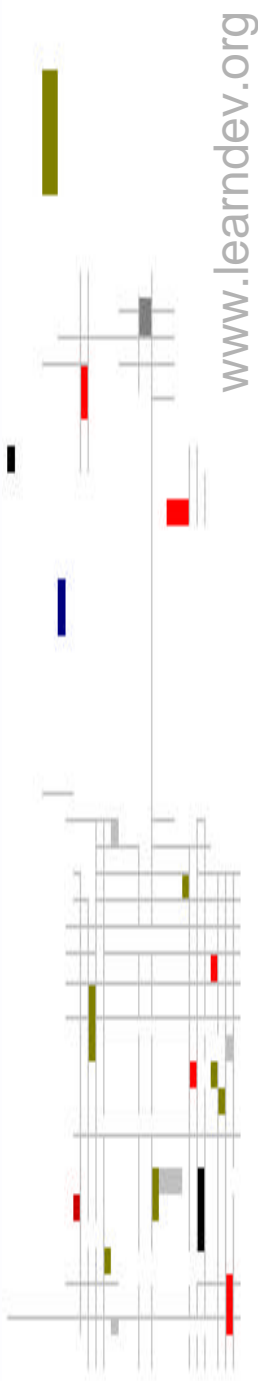
What's a competency?

ibstpi definition:

- A knowledge, skill or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment.

However, people also wish to develop competency for reasons unrelated to employment. A more general definition would thus be:

- A knowledge, skill or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected by someone.



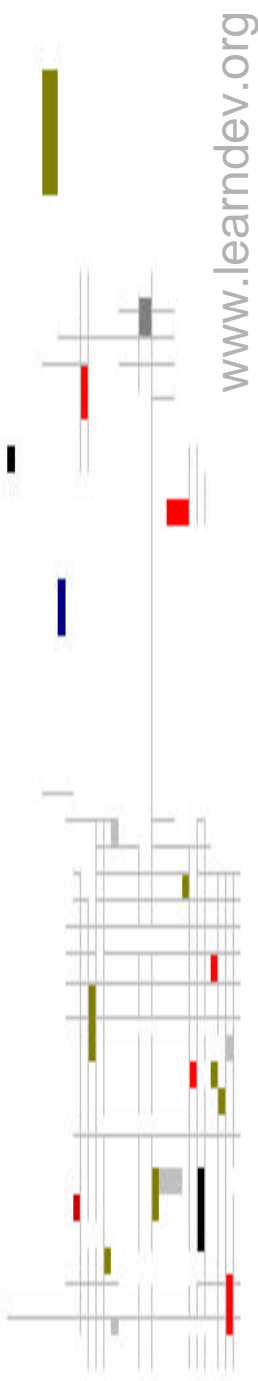
Is there more to human existence and human functioning in the world than competency?

Yes, there is.

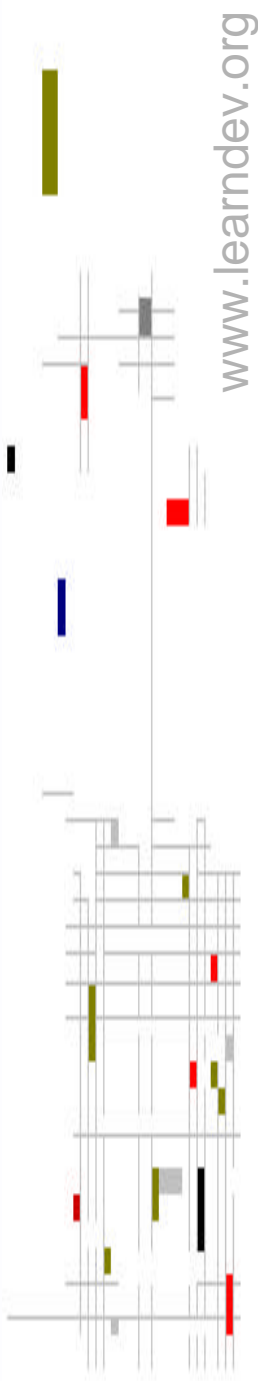
There is also *mind*.

What is mind?

- ❑ Anglo-Saxon origin: “*gemynd*” = memory
- ❑ Two perspectives on memory:
 - memory as static concept (stored retrievable information)
 - memory as dynamic concept, i.e. giving meaning, intentionality.
- ❑ We are all “memories in the making” (Yusra Laila Visser, 1997)
- ❑ Jan Visser (2002): “*Mind . . . has to do with our ability to act consciously within the context of the accumulated and critically appreciated experience of humanity’s development. It integrates our actions within the perspective of that ongoing development, building the bridge between the past and the future*” (p. 11).
- ❑ Susan Greenfield (2000): “*Mind . . . is the seething morass of cell circuitry that has been configured by personal experiences and is constantly being updated as we live out each moment*” (p. 13). In other words, it is, according to Greenfield, “*the personalization of the physical brain*” (p.14) through our experience.



Mind = construction of intentionality, a process that contributes not only to our own existence, but that also enhances the existence of humanity in general.

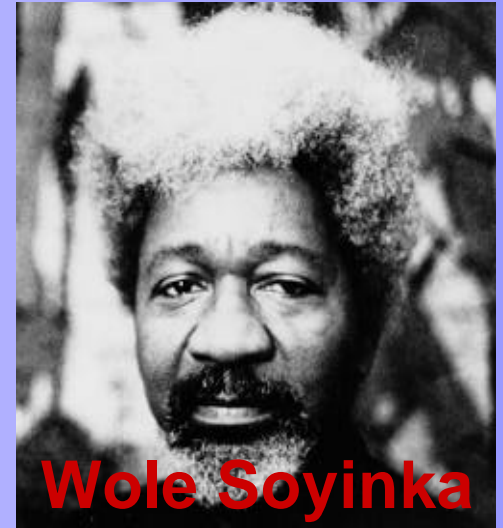


ENHANCING EXISTENCE

Three interwoven spheres of existence in Yoruba culture:

- the world of the living
- the world of the unborn
- the world of the ancestor.

Every individual has the responsibility to **enhance the process of existence** during his or her passage from the world of the unborn to the world of the ancestor. One is thus part of the community of those who came before and those who will come after us. **“The responsibility of creating an environment, which makes this particular passage in which one finds oneself congenial, is a communal responsibility”** (VPRO, 2000).



MIND'S MATTER – and the problem of scientific inquiry

“...the mind is not the brain but what the brain does, and not even everything the brain does, such as metabolizing fat and giving off heat” (Pinker, 1997, p. 24).

Mind is a process, “a special kind of process depending on special arrangements of matter” (Edelman, 1992, p. 7).

“Science has, for many centuries, had difficulty in dealing with the mind. Proper scientific inquiry assumed processes that excluded, as much as possible, intentionality.”

(J.Visser, 2001)

“Science manipulates things and refuses to inhabit them”
(Merleau-Ponty, 1964).

MAN VS. MIND - DUALISM

Descartes: Separation between the worlds of mind (*res cogitans*) and science (*res extensa*).

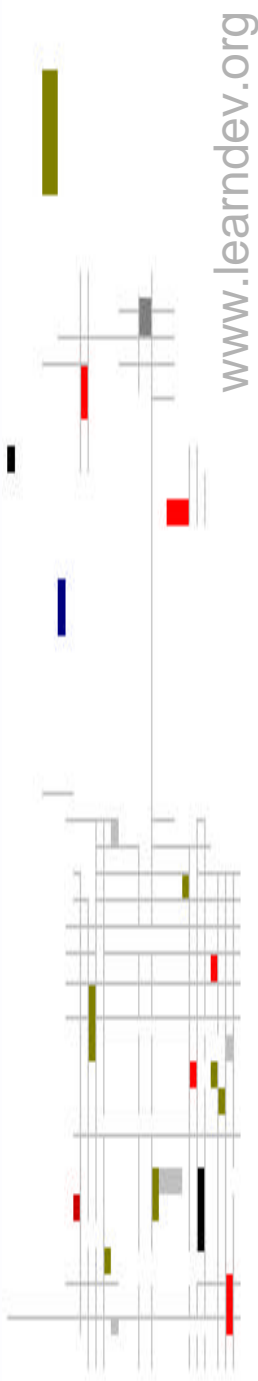


**Descartes
(1596-1650)
by Frans Hals**

Kronig (1969)...reflecting on half a century of his involvement in theoretical physics and reacting to imminent tendencies during the late nineteen-sixties, preferred to qualify as “pseudo-sciences” those endeavors that, while trying to model themselves on the rigor of the physical sciences, wished to include the human being as subject in their considerations.

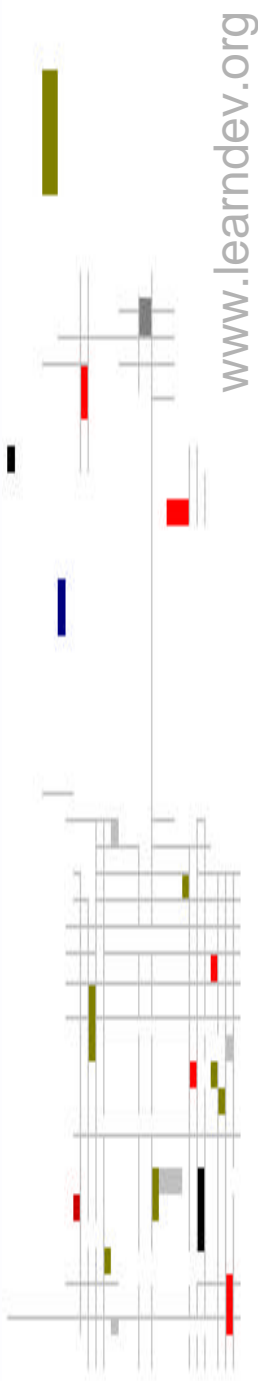


**Ralph Kronig
(1904-1995)** 10



TWO EVENTS THAT COMPELL US TO PUT THE MIND BACK INTO NATURE

- *“Changing views of the physical sciences themselves...and of the role of the physical sciences in (re)-connecting human beings to the experience of reality” (Nicolescu, Heisenberg, Pauli and Bohr).”*
- *“The development, started during the later part of the 20th century, of technologies and methods that are allowing our very humanity, or what we thought it was, to become the object of scientific inquiry and manipulation. This includes the insights we are getting into the workings of the brain as well as our genetic make-up. Subject and object are, so to say, looking each other in the eye; they can no longer be kept apart.”*

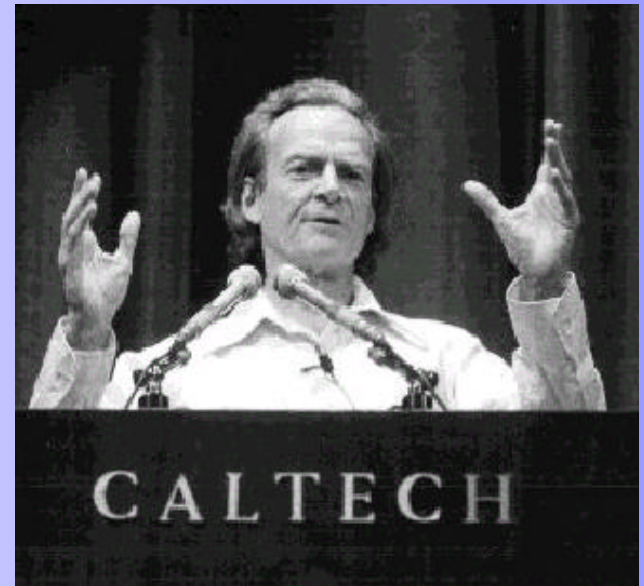


CONSCIOUSNESS

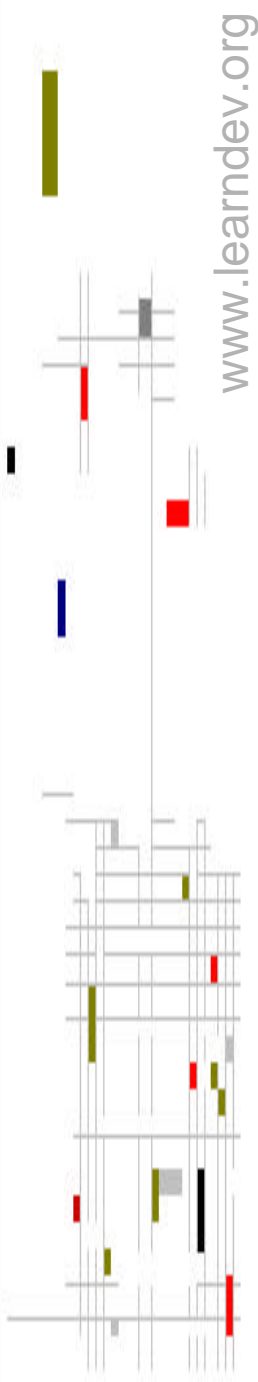
I wonder why I wonder.

I wonder why I wonder why I wonder.

I wonder why I wonder why I wonder why...

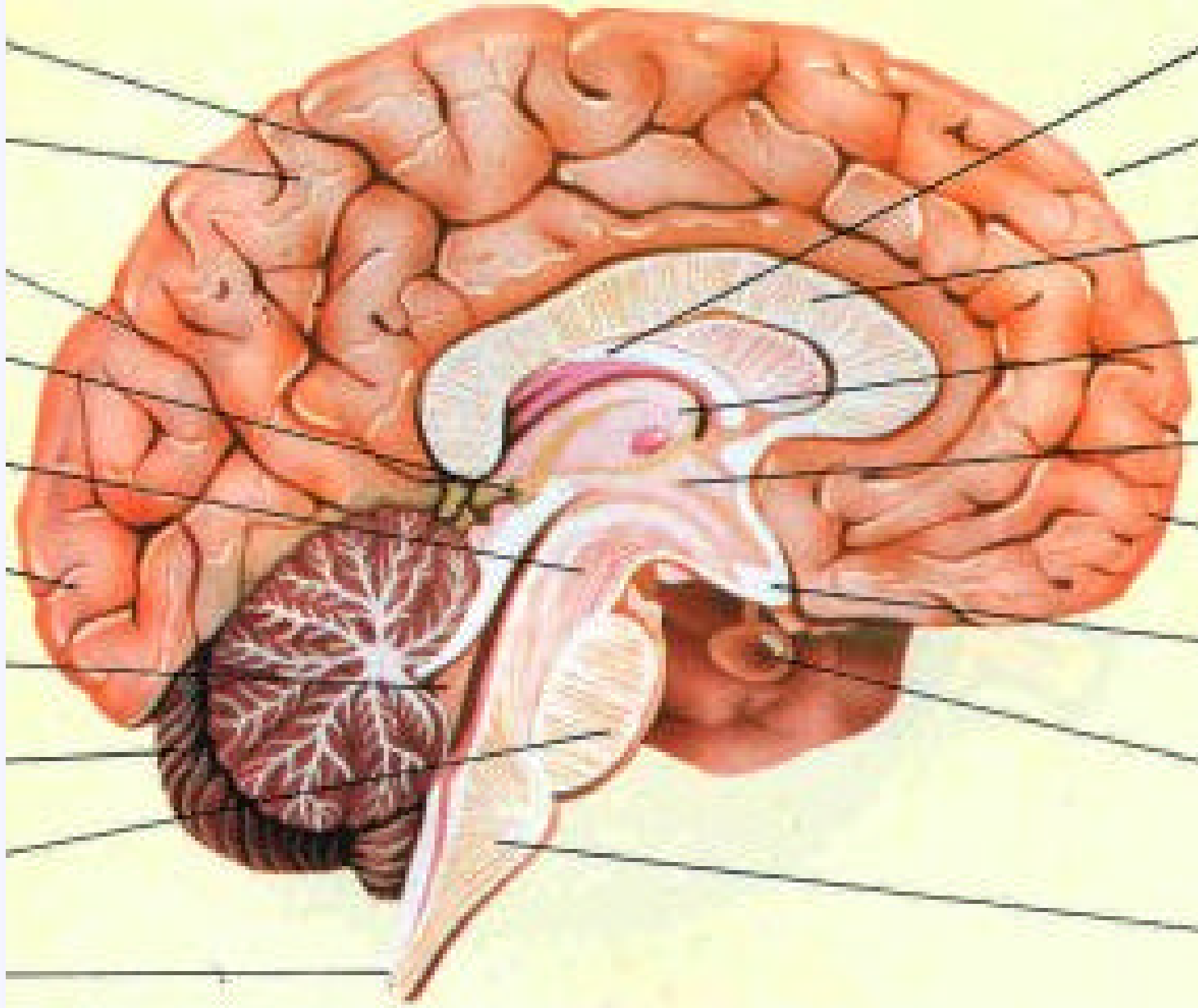


**Richard Feynman
(1918-1988)**



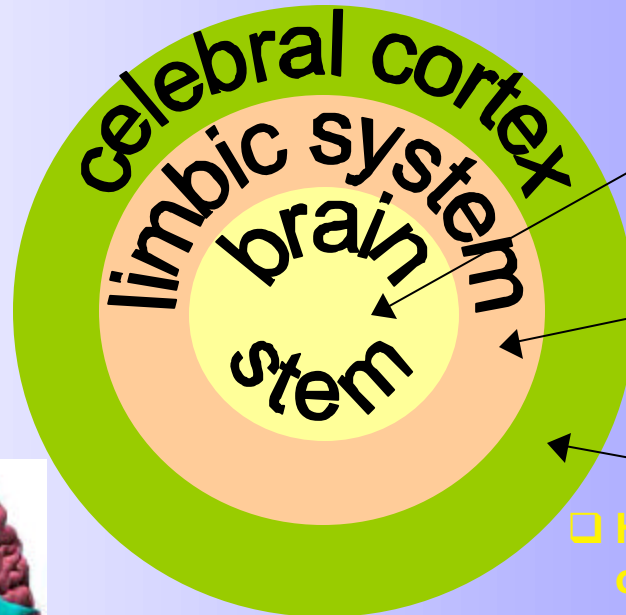
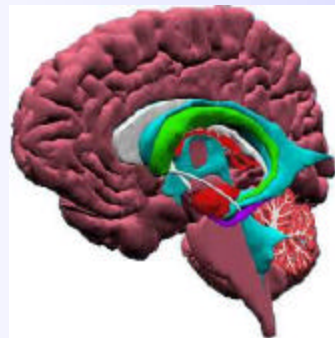
www.learndev.org

Mind and consciousness: Their material substrate



Mind and consciousness: Their material substrate

MacLean (1952): Model of the triune brain
(published in 1970)



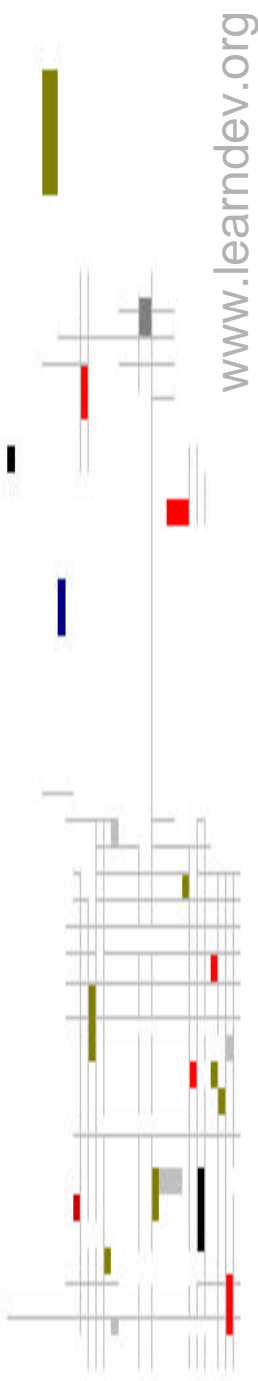
Identified with atavistic behavior

Identified with regulating of emotions

Identified with intellectual processes

Hierarchical organization of brain functions

Separation of cognitive and affective functioning



Greenfield's (2000) model

- ❑ No simple one-to-one correspondence between a particular function and a specific part of the brain – different parts act together and in symphony.
- ❑ Emotional reactions such as rage are not the same thing as our feelings about them (contrary to other animals we have the ability to be pre-occupied).
- ❑ Emotions are building blocks of consciousness.
- ❑ The mind plays a crucial role in the construction of consciousness.

Mind as personalization of the brain

Building the mind/personalization of the brain

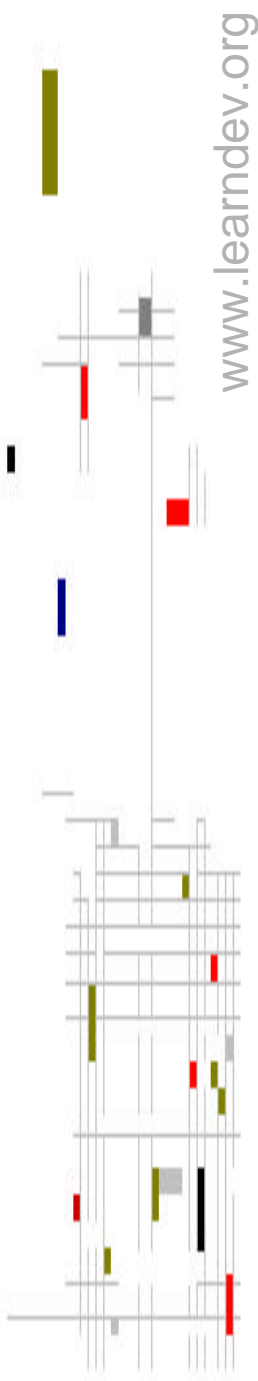
Pure emotion (not moderated by the individual's memories)

Emotion integrated with experience-based learning

The opposite process (losing or blowing one's mind)

Thanks to the integration of emotion in the framework of experience-based learning we are able to develop the **wisdom to react differently** from how we might be expected to react according to instinct, or **not react at all** (example: non-violence).

Understanding = ability to contextualize something in the framework of our accumulated experience (only possible if you don't blow or lose your mind).

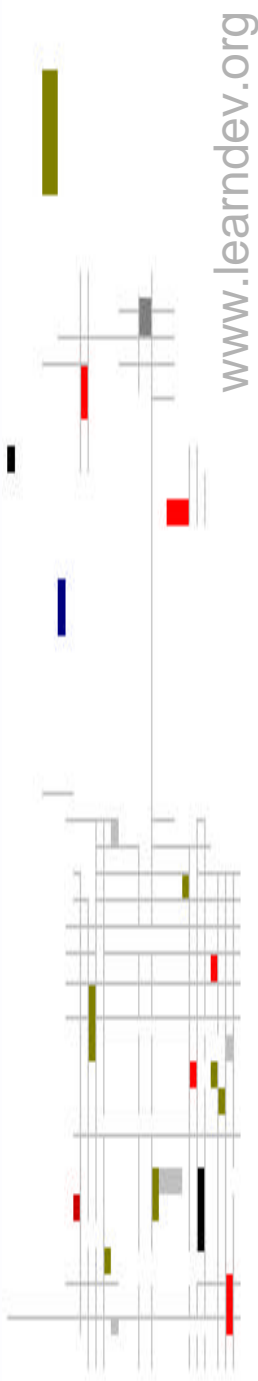


Conclusion

- 👉 The totality of accumulated experience in a human being matters.
- 👉 This constitutes an essential dimension of human learning.
- 👉 Care for that dimension is the shared responsibility of different segments of the learning ecology, i.e. of different sets of factors operating in a dynamically evolving variety of organically interwoven learning environments (not necessarily of an instructional nature) that someone is part of over time.
- 👉 We must find the right balance between mind and competency, recognizing that mind without competency is useless, but competency without mind dangerous.

References (for the first part of the presentation)

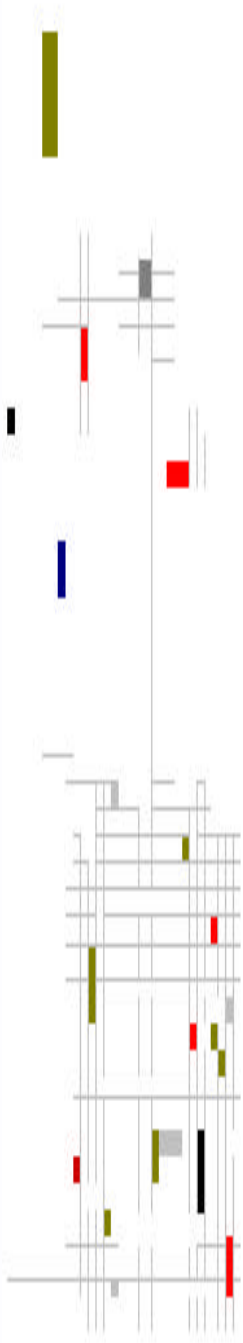
- ❑ Edelman, G. M. (1992). *Bright air, brilliant fire. On the matter of mind*. New York, NY: Basic Books, A Division of HarperCollins Publishers, Inc.
- ❑ Greenfield, S. (2002). *The private life of the brain: Emotions, consciousness and the secret of the self*. New York, NY: John Wiley & Sons.
- ❑ Kronig, R. (1969). *Bezinning en perspectief (Reflection and perspective)*. Valedictory lecture. Delft, The Netherlands: Uitgeverij Waltman.
- ❑ Merleau-Ponty, M. (1964). *L'oeil et l'esprit*. Paris, France: Éditions Gallimard.
- ❑ Pinker, S. (1994). *The language instinct: How the mind creates language*. New York: William Morrow and Company.
- ❑ Visser, J. (2001). *Landscaping the learning environment: Creating a home for the complex mind*. 2001 David Kinsey Lecture. Amherst, MA: University of Massachusetts [Also online at <http://www.learndev.org/dl/KinseyLecture2001-rev2.pdf>].
- ❑ Visser, J. (2002). *La innovación: Necesidad científica, opción artística (Innovation: Scientific necessity and artistic choice)*. Guadalajara, Mexico: Universidad de Guadalajara, Cátedras de Innovación Educativa [Also online at <http://www.learndev.org/dl/Innovation-UdG-2002.pdf>].
- ❑ Visser, Y. L. (1997). Personal communication.
- ❑ VPRO (2000). *Van de schoonheid en de troost (Of beauty and consolation)*. A series of TV programs by Wim Kayzer available on videotape (subtitled in Dutch). Information (in Dutch) about the programs retrieved March 25, 2001, from the World Wide Web: <http://www.vpro.nl/data/2361511/program.shtml?2361511>. Ordering information for the videotapes available at <http://www.vpro.nl/frontend/index-back.shtml?985516811>.



Possibly also worth reading

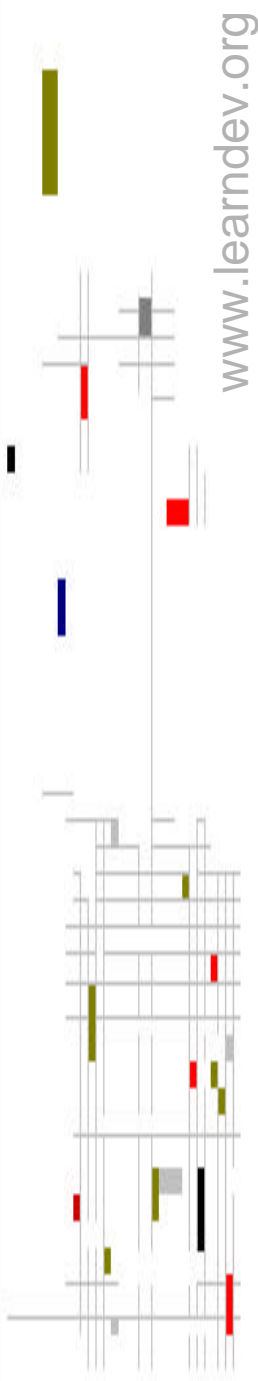
- Visser, J. (in press). The role of human learning in the information age: Challenges and opportunities for Latin America and the rest of us. In V. Almeida, R. Baeza-Yates, M. I. Camarena (Eds.), *The role of humanity in the information age: An Ibero-American perspective*. [Also online at <http://www.learndev.org/dl/HumanLearnInfoAge.pdf>.]



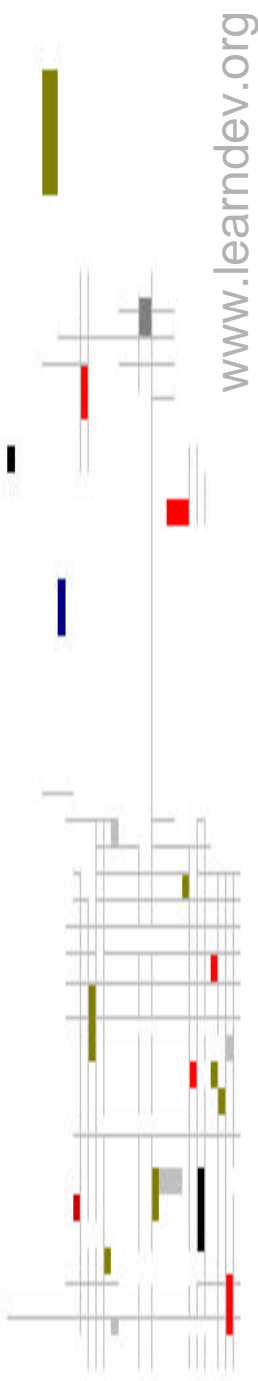


The Nature and Development of the Scientific Disposition

Yusra Laila Visser

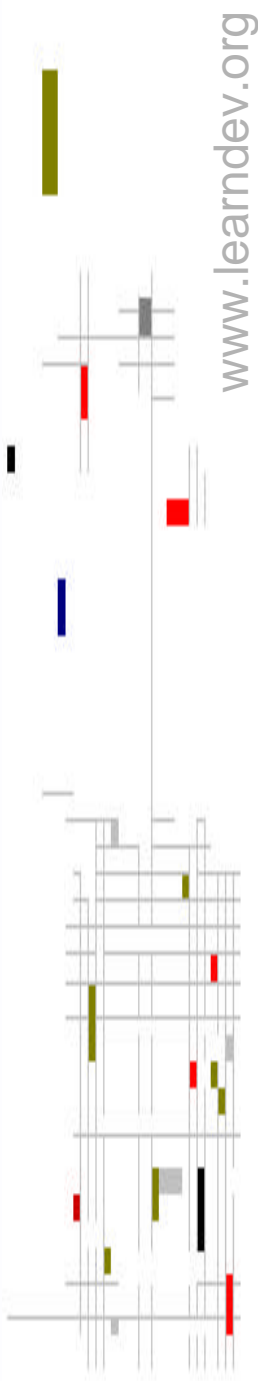


Development of the true scientific spirit is important not only to create a scientifically literate population, but particularly also to create a citizenry that can creatively and constructively respond to the challenges of the world of the 21st century.



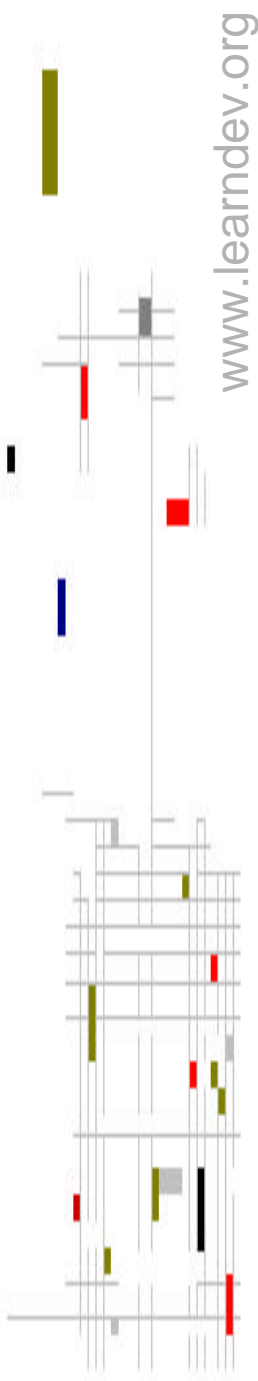
What is a disposition?

- Natural or prevailing spirit, or temperament of mind, especially as shown in interaction with others
 - A way of being
 - Dialogical in nature
- Tendency to any action or state resulting from natural constitution



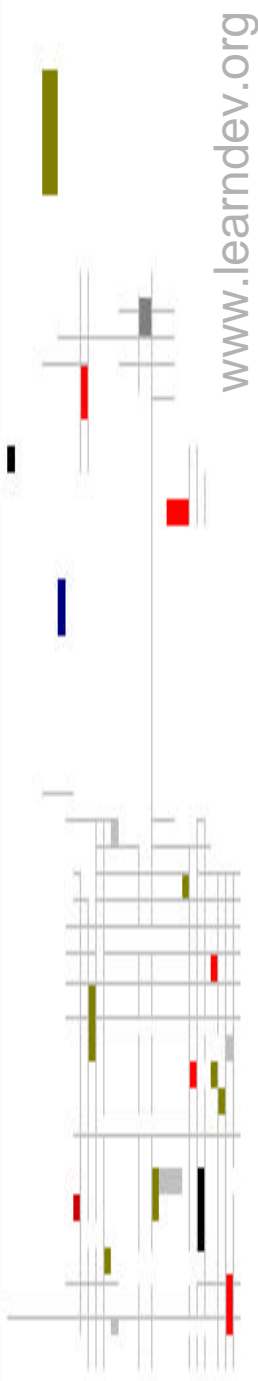
Why should we understand the scientific disposition?

- ❑ The disposition is not – and should not be construed as - limited to scientific disciplines
- ❑ It belongs to everyone.
 - Our understanding of it is intimately connected to the rethinking of “formal” learning
 - The nature of such a disposition requires us to consider the learning landscape in its entirety
- ❑ The development of the disposition is, like learning, a lifelong and life-wide process of constructively interacting with the external environment



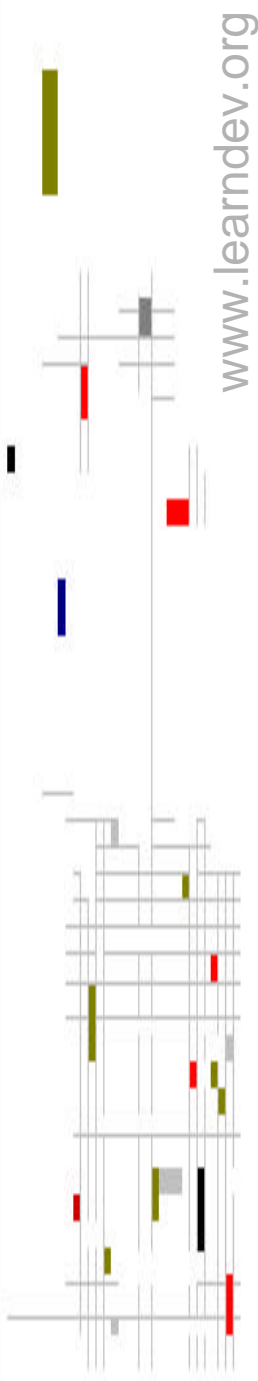
The trouble with competence

- ❑ Ahhh, mediocrity (setting the bar)
- ❑ Modularization of the disposition
- ❑ One-sided view of behavior in the absence of context, or of mind.



The scientific disposition

- Disposition to question the facts and critically challenge the 'givenness' of any *a priori*
- The merit of a directional definition
- May be considered to include things such as:
 - Uncovering of the beauty in the natural state
 - Addressing the personal and social needs and interests
 - Sensing an urgency in exploration
 - Incorporating suspended judgment
 - Astonishment

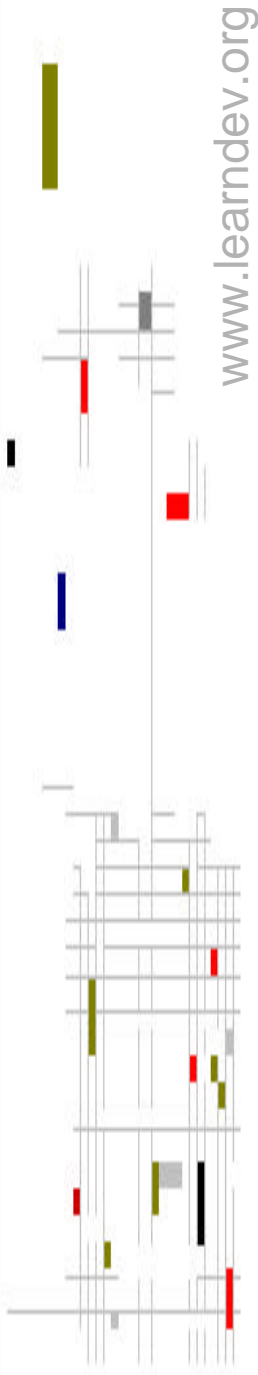


On beauty and the beast

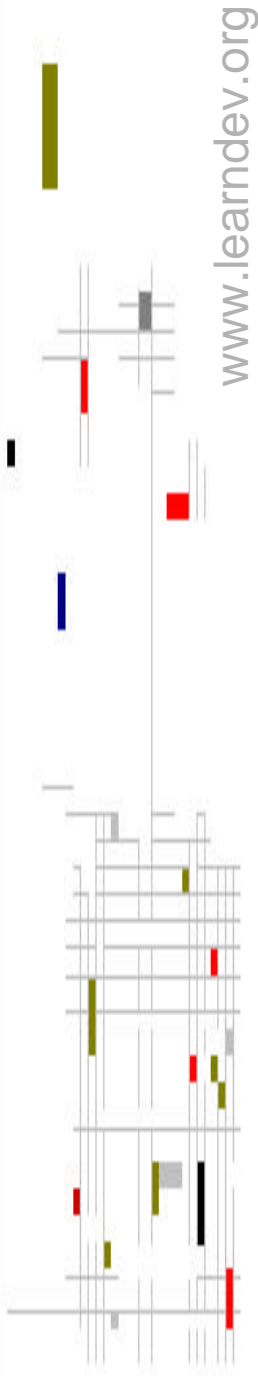
□ Aesthetic awareness

- Interpreting the landscape to reveal the beauty within
- Identifying order or patterns in the beauty

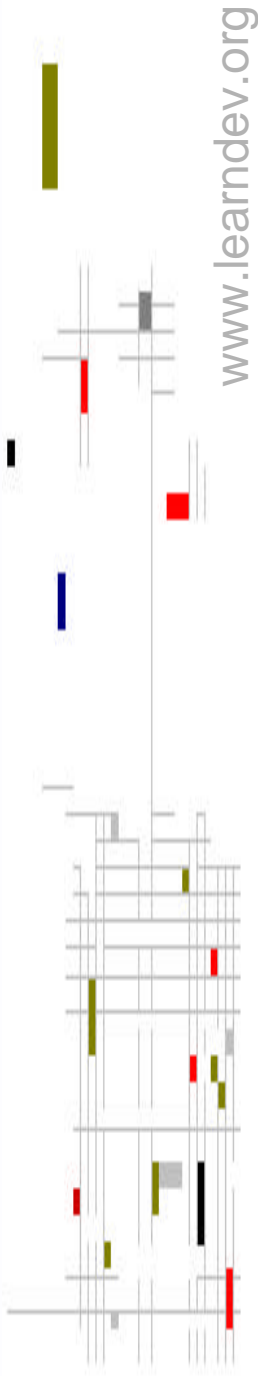
□ Responsibility



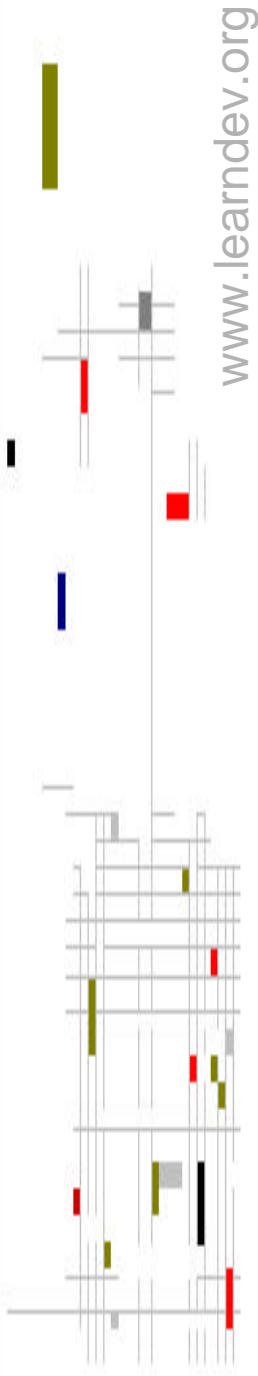
On personal and social interests



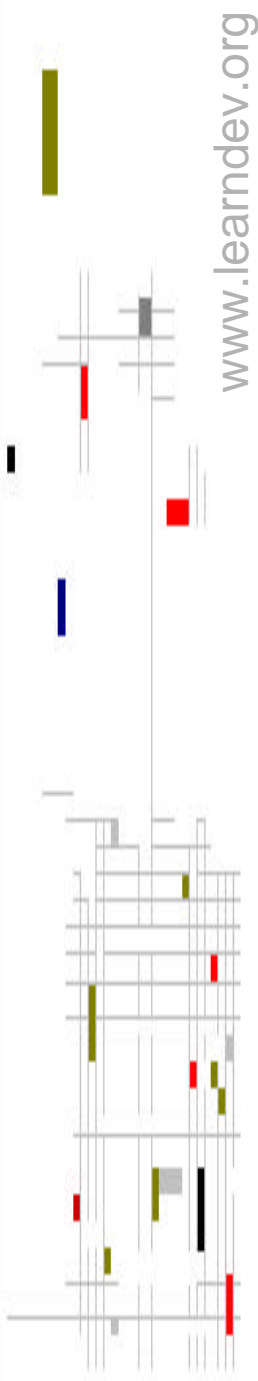
On the urgency of exploration



On astonishment



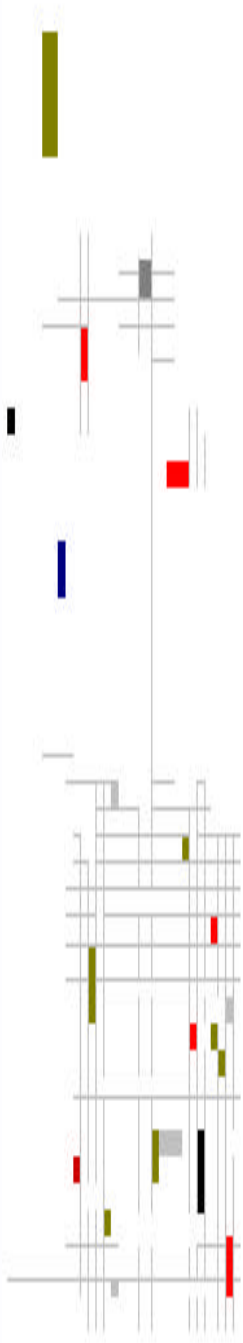
On suspended judgment



Implications for instruction

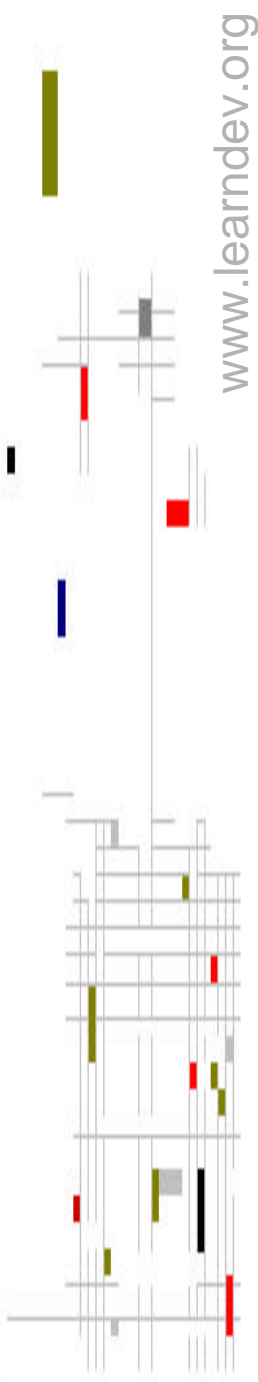
- ❑ Dispositional development takes priority over content acquisition





Cyber-communities: Idle talk or inspirational interaction?

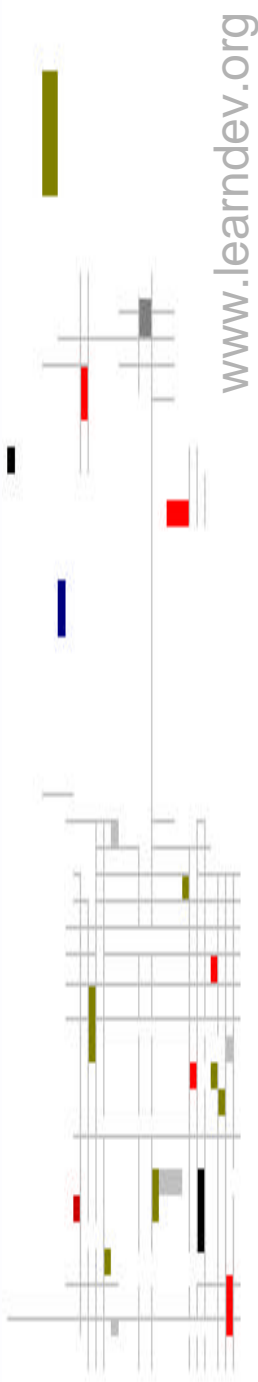
Meira Van der Spa
(presented by Jan Visser)



The absent author

Meira Van der Spa





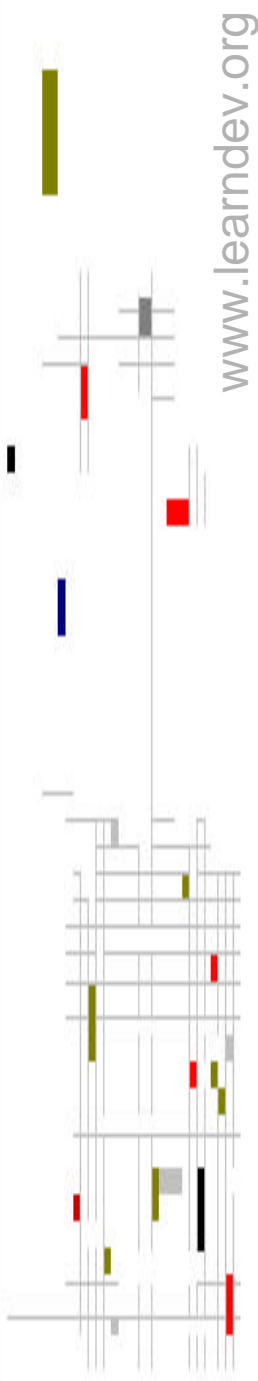
The researcher's interests

Creating harmonious,
self-sustaining
environments



TSM in action: The story of an inquiry

- ❑ The low lands by the sea (photo credit Alex Sievers)
- ❑ Of universities and the corruption of science . . .
- ❑ Preparing pea soup . . . Kitchens as places of dialogue
- ❑ How does TSM evolve in children?
- ❑ The Hobby Club movement in The Netherlands
- ❑ Rejection of a thought
- ❑ Emergence of a hypothesis
- ❑ The urge to find out
- ❑ Method
- ❑ Discipline
- ❑ Perseverance



Personal comments by the author

- ❑ Difficulty to overcome that the hypothesis was not sustained.
- ❑ Process of growth.
- ❑ Why? Because we grow up in a society that rewards the winner and gives no credit for the well-intended attempt (see also the author's learning story at <http://www.learndev.org/dl/LearningReflectionsExample.PDF>).
- ❑ Commercialization of science. Research for pure pleasure, driven by nothing but curiosity, is seen as wasteful.
- ❑ Rejection of pressure to publish (+ co-publish with supervising academic).
- ❑ Rejection of idea that research should fit in with processes that generate money.
- ❑ Need to save The Scientific Mind from the hands of commercialized science and consumer society.

The study

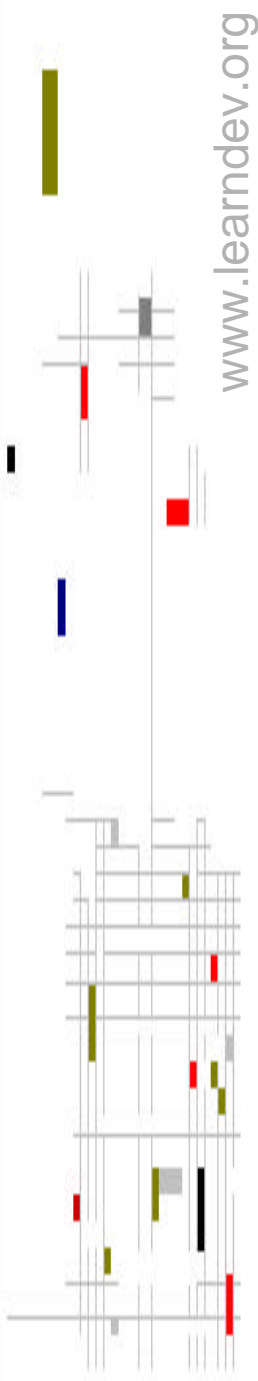
- ❑ Check it out at:

<http://www.learndev.org/dl/Cybercommunities-AECT2002.pdf>.

- ❑ Research question:

To what extent do users of online communities engage in meaningful and deep discussion? How do they perceive this type of online communication and to what extent do they (expect to) find intellectual challenge, inspiration and collaboration on the Internet?

- ❑ Case study: Largest open Internet forum in The Netherlands (33000+ users; eight times larger than next largest).
- ❑ Method: Participant observation by researcher + questionnaire.
- ❑ Data: 50 usable response sheets
- ❑ Analysis: Coding of responses + inter-coding check of 24% of responses.



Conclusions

- Variety of opinions on the value of Fok! [the forum that was the object of the research] as a place for debate, discussion, collaboration and as a source of information and inspiration is as large as the variety of users who participate in the forum.
- It does not appear from these results that Fok! is a place where self-criticism and collaboration and a sense of unity are key aspects of how the community works. The entertainment value of the community appears to be of at least equal importance to the users as its non-entertainment value.

What's next?

- Although the depth of discussion revealed through this study does not suggest that virtual environments of the kind represented by Fok! Forum are places that are particularly suited to foster TSM, the study certainly does not exclude that they may. However, for this to be the case, it should be assumed that specific factors need to be present in such environments. The determination of such factors is recommended as an object of further research.
- While many Internet-enabled distance education programs already include closed, dedicated, and usually moderated chatrooms and threaded discussions as part of their offerings, one may think . . . also of an extension [of this practice] beyond the institutional setting. This would mean that distance education institutions should actively encourage their students not only to interact within their own – closed – virtual environments, but also to partake in open fora that facilitators and students may together identify, to broaden the scope of their learning-related social interaction.

www.learndev.org



jvisser@learndev.org
meira@learndev.org
yvisser@learndev.org