
Introduction: Conceptual support for learning

Guest Editor: Piet A.M. Kommers

University of Twente, Educational Science and Technology,
Department of Instrumentation, Postbox 217, 7500 AE Enschede,
The Netherlands

E-mail: kommers@edte.utwente.nl Home page file:
[///RI/WWW/SERVER/USER/ISM/KOMMERS/personal.HTM](http://RI/WWW/SERVER/USER/ISM/KOMMERS/personal.HTM)

Learning is becoming an increasingly vital element in the processes of continuing change and innovation in industry, communication and even private life. As information resources become more readily available, however, it seems that the impact of information access is no longer seen as the ultimate one. It looks more urgent nowadays to find crucial methods for learners to navigate and survive on the information oceans of the world-wide web and the hurricanes of new communication facilities.

This special issue aims at eliciting new notions on the contemplative nature of deep learning; the goal is not only to increase the students' spatial imagination of his/her prior knowledge – more important is the attempt to make learners aware of the more complex templates that underlie conceptual knowledge. At a more pragmatic level, one could say that schematic views on complex topics seem to be complementary to textual and pictorial displays, as they convey the learner better on his trip through the myriad of super- and subordinate elements.

My hope is that this journal issue may inspire you to learn about concept mapping as a typical member of the family of so-called 'learning tools'. Together with simulation-, expert- and decision-support systems, they aspire to facilitate the more intimate cognitive stages of learning and mental integration. 'Instruction', the more cybernetic metaphor for 'goal-oriented guidance', seems to lose its strength as already software and physical devices have a high degree of implicit coaching. The more delicate level of learning that requires a fresh attention is the level of ideation and 'conceptual change' – adult learners become more and more autonomous actors with highly idiosyncratic needs, styles and opinions. Instead of helping them by direct instruction, it seems to be more effective to provide them with dedicated methods and tools for structuring knowledge. Concept mapping tools is one of them. You may find here some in-depth experiments into its learning effects.