Notes de lecture


Cognitive flexibility theory = an approach that provides a foundation of principles to guide random access instruction [special needs of random access instruction – advanced learning on complex topics], aspects of a general theoretical orientation to knowledge acquisition and application in complex content domains. (p.163)

-- representation of patterns of [literary] thematic deployment p.164

More generally, this instructional program could be combined with similar ones developed in other domains to form a staging ground to alert students to generic hazards of oversimplification and to prepare them to deal with complexity across domains. p.165

By cognitive flexibility, we mean the ability to spontaneously restructure one's knowledge, in many ways, in adaptive response to radically changing situational
demands (both within and across knowledge application situations). This is a function of both the way knowledge is represented (e.g., along multiple rather than single conceptual dimensions) and the processes that operate on those mental representations (e.g., processes of schema assembly rather than intact schema retrieval). p. 165-166

The same material (...) is capable of being explored in different ways, with the different exploration paths producing what is essentially multiple texts of the same topic. p.166

We are simply lumping together as cases anything that is an actual happening, whether it is a scene from a film, a medical case or an historical event. This is part of the same fundamental distinction we draw between conceptual knowledge and cases (things that actually happen). p.168n4

...the learning of complex content material in ill-structured domains requires multiple representations – multiple explanations, multiple analogies, multiple dimensions of analysis (p.168)

...many of the strategies of learning and instruction that are most successful in introductory learning (e.g., the use of analogy) form impediments to the eventual
development of more sophisticated understandings p.169

Le système métrique et d'autres systèmes de mesure répondent en partie aux descriptions offertes par Spiro (1990) des connaissances visées par sa théorie de la souplesse cognitive à titre de généralisation de la métaphore des « paysages croisés » de Wittgenstein :

Cognitive flexibility theory generalizes Wittgenstein's metaphor of the criss-crossed landscape to apply to any complex or ill-structured knowledge domain. 

[...] We use the metaphor to form the basis of a general theory of learning, instruction and knowledge representation. p.170

La théorie de Spiro, conçue dans les années 1986-87 et formulée pour publication en 1990 spécifie ses intentions et tente de les matérialiser avec l'hypertexte dans des appareils IBM disponibles alors ; à cette époque, ...(what is hypertext in 1990?)... . Les objectifs sont les suivants et ils visent l'économie cognitive : Instructional material is presented in a manner that does not sacrifice complexity, yet takes an instructionally reasonable amount of time to cover, and does not overwhelm the learner. [...] The trick is to make advanced learning as easy as possible without sacrificing the integrity of the material to be learned. p.203
... the advent of random access computer technologies ... we use the expression random access instruction to refer to a cluster of fundamental issues brought into play by nonlinear learning with random access media. p.163