
Cognitive load theory and foreign language learning

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Résumé

Cognitive load theory (Sweller, Ayres, & Kalyuga, 2011) is an instructional theory based on our knowledge of human cognitive architecture. It is directly applicable to foreign language students and teachers. The first aspect of human cognition that needs to be considered when devising instruction concerns two categories of knowledge (Geary, 2008). Biologically primary knowledge is knowledge we have evolved to acquire over many generations. Learning to listen to and speak our first language provides an example. Biologically secondary knowledge is cultural knowledge that humans have required more recently and have not specifically evolved to acquire. Examples are learning a foreign language or learning to read and write in any language. The cognitive architecture associated with primary knowledge is different from the architecture associated with secondary knowledge and so the instructional procedures relevant to learning a first language and those relevant to learning a foreign language also differ. I will concentrate on the cognitive architecture and instructional procedures associated with biologically secondary knowledge such as knowledge of a foreign language. The relevant cognitive architecture allows us to process information in a manner similar to the manner in which evolution by natural selection processes information. It can be considered via 5 basic principles: The information store principle dealing with human long-term memory; The borrowing and reorganising principle dealing with how we characteristically obtain information from other people; The randomness as genesis principle dealing with how we create novel information; The narrow limits of change principle dealing with the role of a limited working memory in processing novel information; The environmental linking and organising principle that explains why organised information held in long-term memory determines how we interact with our environment. Each of these principles has substantial instructional implications that will be discussed.

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