

Instructional Design for Advanced Learners: Establishing Connections between the Theoretical Frameworks of Cognitive Load and Deliberate Practice

Citation for published version (APA):

Van Gog, T., Ericsson, K. A., Rikers, R., & Paas, F. (2005). Instructional Design for Advanced Learners: Establishing Connections between the Theoretical Frameworks of Cognitive Load and Deliberate Practice. *Educational Technology, Research and Development*, 53(3), 73-81. <https://doi.org/10.1007%2FBF02504799>

DOI:

[10.1007%2FBF02504799](https://doi.org/10.1007%2FBF02504799)

Document status and date:

Published: 01/09/2005

Document Version:

Peer reviewed version

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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Instructional Design for Advanced Learners: Establishing Connections between the Theoretical Frameworks of Cognitive Load and Deliberate Practice

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Cognitive load theory (CLT) has been successful in identifying instructional formats that are more effective and efficient than conventional problem solving in the initial, novice phase of skill acquisition. However, recent findings regarding the “expertise reversal effect” have begun to stimulate cognitive load theorists to broaden their horizon to the question of how instructional design should be altered as a learner's knowledge increases. To answer this question, it is important to understand how expertise is acquired and what fosters its development. Expert performance research, and, in particular, the theoretical framework of deliberate practice have given us a better understanding of the principles and activities that are essential in order to excel in a domain. This article explores how these activities and principles can be used to design instructional formats based on CLT for higher levels of skills mastery. The value of these formats for e-learning environments in which learning tasks can be adaptively selected on the basis of online assessments of the learner's level of expertise is discussed.

Educational Technology Research and Development, 53(3), 73-81

<http://www.springerlink.com/content/q813420202j4n811/>

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