



IO7 – MOOC for Teachers

Self-directed Learning Resource 1

Topic:	Creative Problem Solving
Title:	Incubation, Insight, and Creative Problem Solving: A Unified Theory and a Connectionist Model
Time:	It will take you 60 minutes to read through this article, and to take note of what is important to you.
Type of Resource:	Journal article
Content of the Resource	<p>This article proposes a unified framework for understanding creative problem solving, namely, the explicit–implicit interaction theory. This new theory of creative problem solving constitutes an attempt at providing a more unified explanation of relevant phenomena (in part by reinterpreting/integrating various fragmentary existing theories of incubation and insight). The explicit–implicit interaction theory relies mainly on 5 basic principles, namely, (a) the coexistence of and the difference between explicit and implicit knowledge, (b) the simultaneous involvement of implicit and explicit processes in most tasks, (c) the redundant representation of explicit and implicit knowledge, (d) the integration of the results of explicit and implicit processing, and (e) the iterative (and possibly bidirectional) processing. A computational implementation of the theory is developed based on the CLARION cognitive architecture and applied to the simulation of relevant human data. This work represents an initial step in the development of process-based theories of creativity encompassing incubation, insight, and various other related phenomena.</p>
Link to resource:	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.405.2245&rep=rep1&type=pdf