

Heuristic Models for Creativity Experiments in Architectural and Engineering Design

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Abstract

Many cognitive processes contribute to the generation of creative problem solving. One important characteristic involves the combination and reorganization of certain kinds of knowledge to form new and novel category solutions. It is posited that convergent and divergent forms of thinking are used to manipulate these combinations categories. One experiment developed by Mobley, Doares, & Mumford (1992)[1] has been used to test this idea. Although the experimental research in that paper is inconclusive this paper seeks to explain why the experimental model is not producing the expected results. This work in progress presentation will not furnish new data from on-going experiments; rather it will present several new models from which experiments will be developed. These new models are variations of the Mobley, Doares, & Mumford experimental model with appropriate modifications. The goal of this presentation is to promote discussion and commentary on the proposed new models for testing creativity. This work has important application for use in design courses where the creativity is a component of the design solution.

[1] Mobley, M. I., Doares, L. M., & Mumford, M. D. (1992). Process analytic models of creative capacities: Evidence for the combination and reorganization process. *Creativity Research Journal*, 5(2), 125-155.