

# **The marriage of interdisciplinary research: The old, the new, the borrowed, and the blue**

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## **Abstract**

In this talk, I would like to reflect upon my interdisciplinary research marriage of the following conducted/undergoing studies: 1) The Old: an older research work of an automated scoring system on problem solving in collaboration with computer scientists (CS); 2) The New: ECNG (Education, Cognition, Neuroscience, and Genes) research framework which brings together experts in the areas of electronic engineering (EE), cognitive psychology (CP), neuroscience, and genetics to realize interdisciplinary research collaborative adventures. These new adventures include CloudClassRoom (CCR) integrated with Smart Clothes, portable EEG in the classroom, as well as some recent work with journalists on the Different Sciences project producing science news/TV program for the public. 3) The Borrowed: Research methodology inspired by a previous study, a data-mining based SLiM (Science Literacy in Media) was invented with the help of computer engineers (CE); and finally, 4) The Blue: an collaboration struggled in a blue mood in terms of working with different areas of experts, the Smart Classroom was co-developed with CS/CE people. Some parental suggestions and advice will be provided in light of this interdisciplinary marriage.

**Keywords:** Interdisciplinary Research; Education; Cognition; Neuroscience, and Genes