

## **Experience-based Analogical Model for Learning Computing Concepts: A Kinesthetic Learning Strategy to Help Tactile Learners.**

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This work investigates a new kinesthetic strategy that promotes learning by doing and helps tactile learners learn computer concepts. The strategy is to convince students that their experiences are transferable to various domains including problem solving in computing. It is based on identifying a practice from students' everyday life that can be used as a metaphor model for practices related to the targeted concept. Analogies can help students learn how to use computing concepts to solve software development and system analysis problems.

The strategy tactics are: (1) to involve students in a discussion that reveals the metaphor model, including the similarities between the practice and the practices related to the targeted concept; (2) to clarify the model using a short lecture; (3) to involve students in an activity that demonstrates the feasibility of extending the model to the practices related to the concept targeted.

This work aims to demonstrate that the strategy helps students move from broad everyday life practices to a concise practices and models approach that support solving computing problems. We will achieve this through presenting two activities that use the strategy tactics. The first gives students the opportunity to develop their own definition of computer programming based on their experience(s) in writing essays in English. The second helps students to transfer their skills in analyzing activities and achievements of their favorite sport team to the system analysis context. These activities will be discussed including the implication on students' learning.

**Keywords:** Engagement, Active learning, Tactile Learners

### **Biography**

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