

# **BRIDGING ACHIEVEMENT-MOTIVATION GAPS: A SYNERGISTIC APPROACH TO QUALITY MATHEMATICS EDUCATION**

Kai-Lin Yang, National Taiwan Normal University, Taiwan, kailin@ntnu.edu.tw

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*Using Bronfenbrenner's ecological theory as a guiding framework, this paper analyzes the achievement-motivation gaps and introduces four programs designed to bridge these gaps in the pursuit of quality mathematics education. These programs adopted distinct strategies: initially implemented either outside or within school settings, and focused on either the gap between high achievement and low motivation, or the gap characterized by high variance in both achievement and motivation. Over time, they expanded to address both gaps across both settings. Reflection on these programs revealed three key principles: prioritizing prevention over remediation, continuous improvement over the pursuit of superiority, and equity over equality. The SMILE framework, comprising task Structure, adaptive Momentum, practice-research Interplay, responsible Leadership, and lifelong Engagement, is identified as a driving force across ecological layers. SMILE extends an enactivist perspective on cognition, and informs a synergistic approach to enhancing the quality of mathematics education.*

*Keywords: Bronfenbrenner; ecological; mathematics; motivation*