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Linking gestures: cross-cultural variation during instructional analogies.

Cogn. Instr. 33, No. 4, 295-321 (2015).

Summary: Deictic linking gestures, hand and arm motions that physically embody links being communicated between two or more objects in the shared communicative environment, are explored in a cross-cultural sample of mathematics instruction. Linking gestures are specifically examined here when they occur in the context of communicative analogies designed to link two distinct yet mutually informative representations. Video coding of eighth-grade mathematics lessons in the United States, Japan, and Hong Kong revealed that teachers in the higher achieving regions (Hong Kong and Japan) used reliably more linking gestures concurrent with verbal linkages than did U.S. teachers. Further, they were significantly more likely to tailor their gesture use to the recency of students' experiences with source than U.S. teachers. The overall data align with growing evidence that U.S. teachers may not systematically capitalize on pedagogical opportunities to draw linkages between representations and that gestures may play a key role in doing so.

Classification: C53 C73

Keywords: linking gestures; instructional analogies

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