Exploring Possible Mechanisms Supporting Transfer of Spatial Reasoning Training to Measurement and Geometry Achievement

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The relationship between the two is complex, however, and the mechanisms supporting transfer from spatial training to mathematics achievement are not well understood.

Adams et al. (2022), found that a spatial training intervention delivered by classroom teachers improved Year 11 students' performance on Measurement and Geometry problems. The present study builds on this work by utilising semi-structured interviews to explore possible mechanistic pathways which may have supported transfer in this context. Interview responses and student work samples were analysed using a novel approach combining Garofalo and Lester's (1985) cognitive-metacognitive framework with response mapping techniques (Stillman & Galbraith, 1998) to examine how students' drawn representations supported students' reasoning throughout the problem-solving process.

This presentation discusses preliminary findings and possible implications for future research exploring transfer from spatial training to mathematical achievement.

References

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