Chapter

Solving Estimation Tasks: Novel Features of the Emerging Models When Three-Dimensional Geometry Becomes Relevant

June 2024
DOI: 10.1007/978-3-031-53322-8_50

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Abstract

This chapter explores the models that emerge when solving estimation tasks in which the three-dimensional geometry of the task context is an essential factor. To this aim, 50 prospective primary teachers were asked to estimate the number of bunches of grapes that fit in an orthohedral box of known dimensions. The written productions obtained were examined by means of several units of analysis identified for this task. Results suggest that the models emerged to solve this task show higher variability and lower response rates than in other estimation tasks analysed in the literature. Some of these models resemble strategies observed in previous studies on Fermi problems, such as base unit, density and linearisation, but strategies of counting reported in those studies were not identified here. Several methodological issues and lines of research emerged from the study are also discussed.

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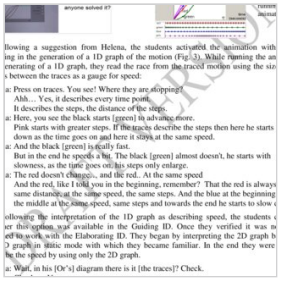

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