Effect of Spatial Visualization on Recall of Bar Charts

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Summary:

Research demonstrates that individual differences and cognitive abilities affect interaction with information visualization. In this study, we test whether spatial visualization ability impacts recall of bar charts. We propose and test a methodology using a crowd-sourced online study to assess spatial visualization (with an established psychometric assessment) and measure differences in error and response time across low and high spatial individuals; we found that once a task is understood, there is no difference in response times between them. However, low spatial individuals had higher error with increased complexity and task difficulty.

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