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Chua, Boon Liang; Hoyles, Celia

The effect of different pattern formats on secondary two students' ability to generalise.

Tso, Tai-Yih (ed.), Proceedings of the 36th conference of the International Group for the Psychology of Mathematics Education "Opportunities to learn in mathematics education", PME 36, Taipei, Taiwan, July 18–22, 2012, Vol. 2. Taipei: National Taiwan Normal University. 155-162 (2012).

Summary: This paper reports on the test performance of 105 Singapore secondary school students in pattern generalising tasks to determine whether the format of pattern display hinders students' pattern recognition and ability to generalise. Data were collected through administering a written test comprising four figural generalising tasks involving both linear and quadratic patterns, presented in two different formats. The students, assigned to work on tasks in only one of the formats, had to establish the functional rule underpinning each pattern. The findings revealed that the students could generate the functional rule regardless of the given pattern format. Further, there was no gender difference in student performance for each task.

Classification: C40 I30 G20 C30

Keywords: pattern generalising tasks; pattern recognition; ability to generalise; performance