

**ZMATH 2015c.00747**

**Chua, Boon Liang; Hoyles, Celia**

**Modalities of rules and generalising strategies of year 8 students for a quadratic pattern.**

Nicol, Cynthia (ed.) et al., Proceedings of the 38th conference of the International Group for the Psychology of Mathematics Education “Mathematics education at the edge”, PME 38 held jointly with the 36th conference of PME-NA, Vancouver, Canada, July 15–20, 2014, Vol. 2. [s. 1.]: International Group for the Psychology of Mathematics Education (ISBN 978-0-86491-360-9/set; 978-0-86491-362-3/v.2). 305-312 (2014).

Summary: This paper reports on the performance of 167 eighth graders in Singapore making generalisations for a quadratic figural pattern presented in a non-successive format. Data were collected through administering a written test in which the students had to establish the functional rule underpinning the pattern. The findings revealed that the students constructed a variety of functional rules, expressed prevalently in symbols using a range of generalising strategies, some of which were novel in the literature.

*Classification:* H23 I23 D53

*Keywords:* figural patterns; generalizations; students' performance; strategies; functional rules