

## Examining Teachers' Conceptions and Use of Reflection to Understand their Practice

Tay Lee Yong, Tan Liang See, Christina Lim-Arasaratnam, Ong Woei Ling Monica, Chua Puay Huat, Tan Jing Yi and Thaslim Begum Aiyooob

### KEY IMPLICATIONS

- This study has quantitatively validated Ward and McCotter's (2004) teacher reflection rubric that can be readily adopted for use in schools.
- Research findings point to teacher's belief as a more notable individual enabler than knowledge as such ingrained beliefs are often translated into instruction styles, methods and strategies.
- Open sharing of problems, consultative peer feedback, and synthesis of inquiry to gain new insights about teachers' own practices through formal professional development sessions or informal interactions among teachers, are essential to improvement in teachers' reflective practice.

### BACKGROUND

The importance of reflection and reflective practice is well acknowledged in teaching and other professions. It has been also suggested that reflection and reflective practice could lead to a possible improvement in practice and

teachers' professional growth. In essence, reflection could be seen as a form of teacher professional development and learning. In Singapore, deliberate efforts are made to develop teachers as reflective practitioners and their reflective practice from the pre-service teacher education programme to in-service teacher learning.

### FOCUS OF STUDY

The overall aim of this study was to investigate the state of Singapore teachers' reflective practice across different career phases. Additionally, the study aimed to uncover how teachers at the different career phases varied in their reflective practice over time. This study also aimed to examine the mechanisms that enabled teachers to become more reflexive in their thinking; for professional growth and how the development of teacher reflective practice deepen teacher learning over time. Lastly, understand and outline ways in which reflections transform into resources for pedagogical decision making.

## KEY FINDINGS

Findings indicate that reflective practice may not develop in tandem with a teacher's years of teaching experience or career phase. Deliberate professional learning efforts to encourage and cultivate the reflective practice of teachers must not be neglected; a suggested approach is to document and articulate profiles of reflective practice that practitioners can aspire towards.

## SIGNIFICANCE OF FINDINGS

1. These findings suggested that for a change in teaching practice, teachers may need to reflect at the dialogic level of the inquiry and change dimensions as outlined by Ward and McCotter (2004).
2. However, even mentors may need tailor-made guidance beyond technical issues to become better mentors. Only then teachers with lesser years of teaching can be trained to reflect more on the inquiry and change paths of reflection, so that they are able to enact change that is meaningful.

## PARTICIPANTS

A total of 526 Singapore mathematic teachers, across 34 schools took part in the pilot and main study.

## RESEARCH DESIGN

This was a mixed-methods study that adapted Ward and McCotter's (2004) teacher reflection rubric as the framework to examine the state of reflective practice and its variation among Singapore mathematics teachers. In the pilot study, the teacher reflection rubric was validated and modified for use in the main study by converting it into a survey scale with corresponding items. The Teacher Reflection scale was incorporated into the respective methods of data collection and analysis. Data was collected from an online survey, teacher nominated critical incidents, experience sampling and lastly, 3 rounds of one-to-one semi-structured interviews to uncover factors that contributed or inhibited the teachers' reflective practice. Additionally, mixed-methods Q-Sort was administered in the first round of interviews to uncover teachers' underlying beliefs about their teaching practices and reflection.

## REFERENCES

Ward, J. R., & McCotter, S. S. (2004). Reflection as a visible outcome for preservice teachers. *Teaching and Teacher Education*, 20, 243–257. doi:10.1016/j.tate.2004.02.004

## About the authors

TAY Lee Yong, LIM-ARASARATNAM Christina, ONG Woei Ling Monica, CHUA Puay Huat, TAN Jing Yi and Thaslim Begum AIYOOB are with the National Institute of Education, Singapore.

TAN Liang See, was with the National Institute of Education, Singapore

Contact Tay Lee Yong at [leeyong.tay@nie.edu.sg](mailto:leeyong.tay@nie.edu.sg) for more information about the project.

This brief was based on the project AFR 03/17 TLS: Examining Teachers' Conceptions and Use of Reflection to Understand their Practice.

## How to cite this publication

Tay, L. Y., Lim-Arasaratnam, C., Ong, W. L. M., Chua, P. H., Tan, J. Y., & Aiyoob, T. B. (2021). *Examining Teachers' Conceptions and Use of Reflection to Understand their Practice* (NIE Research Brief Series No. 21-009). Singapore: National Institute of Education.

## Request for more details

Please approach the Office of Education Research, National Institute of Education, Singapore to obtain a copy of the final report.

>> More information about our research centres and publications can be found at: <http://www.nie.edu.sg>