



Exploring Thai Mathematics

Teachers' Perspectives about Classroom Norms

Nitchada Kamlue (nitchada.kamlue@wmich.edu)
Western Michigan University

Sakon Tangkawsakul
Kasetsart University

Thadapanitsadee Sukonwiriyaikul
Chulalongkorn University Demonstration Secondary School

Laura R. Van Zoest
Western Michigan University

Intro

- The Teaching practices *elicit and use evidence of student thinking* and *facilitate meaningful mathematical discourse* (NCTM, 2014) can only be fully enacted if teachers recognize and value the potential of using student mathematical thinking to increase student learning.
- Enacting these practices in **cultures that have traditionally used student thinking for the purposes of measuring content acquisition** poses a challenge when the goal is to use student thinking to develop a mathematical concept.
- A first step in meeting this challenge is **to learn more about the perspectives of teachers in such situations.**

Research Question

What are general norms in mathematics classes that have potential to form productive sociomathematical norms based on teachers' perspectives on classroom norms when teaching ideal and realistic classes?

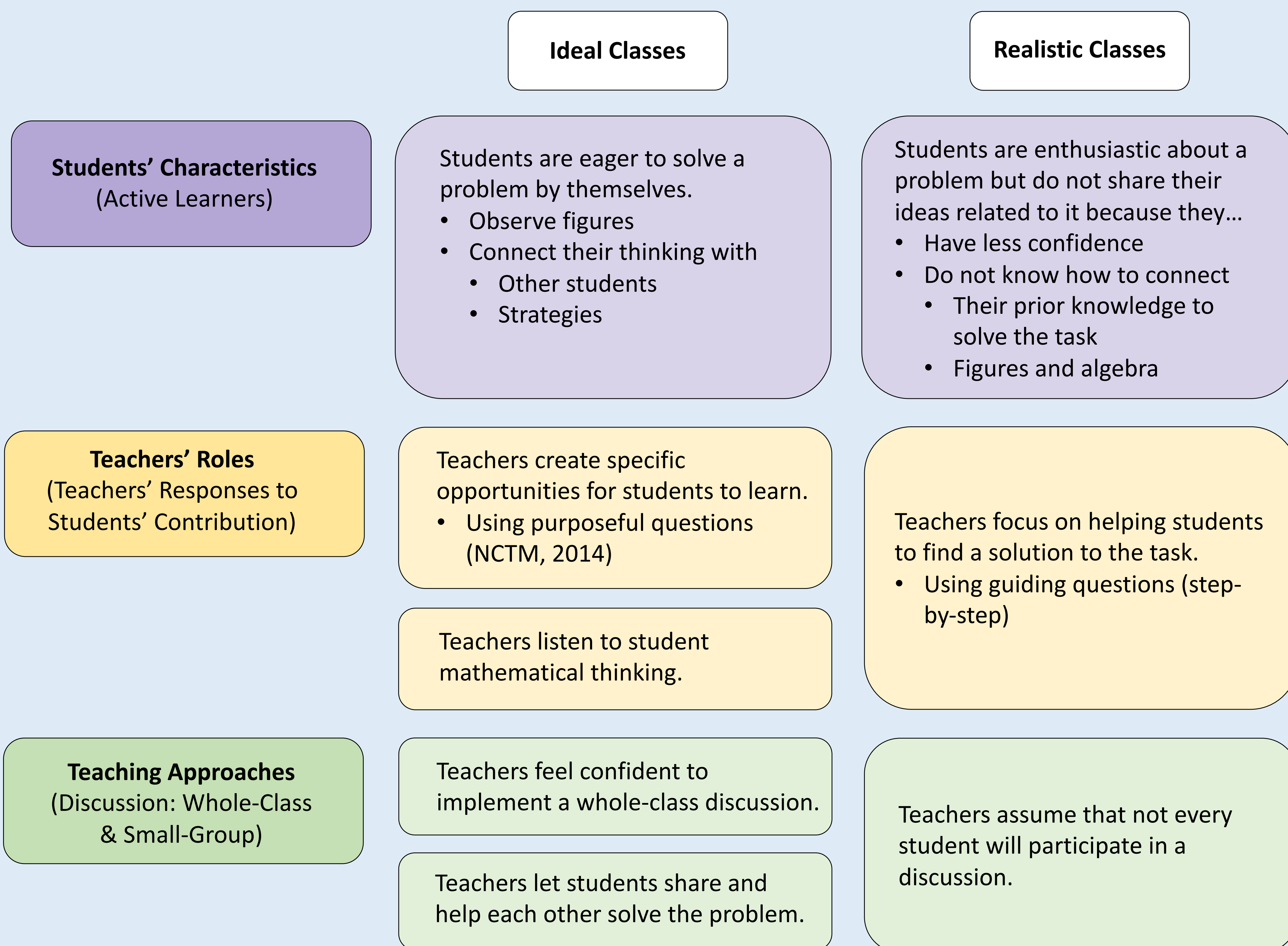
Methods

- This exploratory study focused on **six Thai teachers' perspectives on classroom norms** because norms have been shown to have a significant impact on what happens in classrooms (e.g., Yackel & Cobb, 1996).
- The six teachers were intentionally selected from **government, demonstration, and private schools.**
- We employed **task-based individual interviews** (developed from Van Zoest and Stockero, 2012) about teachers' perspectives on classroom norms when teaching ideal and realistic classes.
- Our analysis of these recorded interviews focused on **identifying the presence or absence of general norms in mathematics classes that support productive sociomathematical norms** (Yackel & Cobb, 1996).

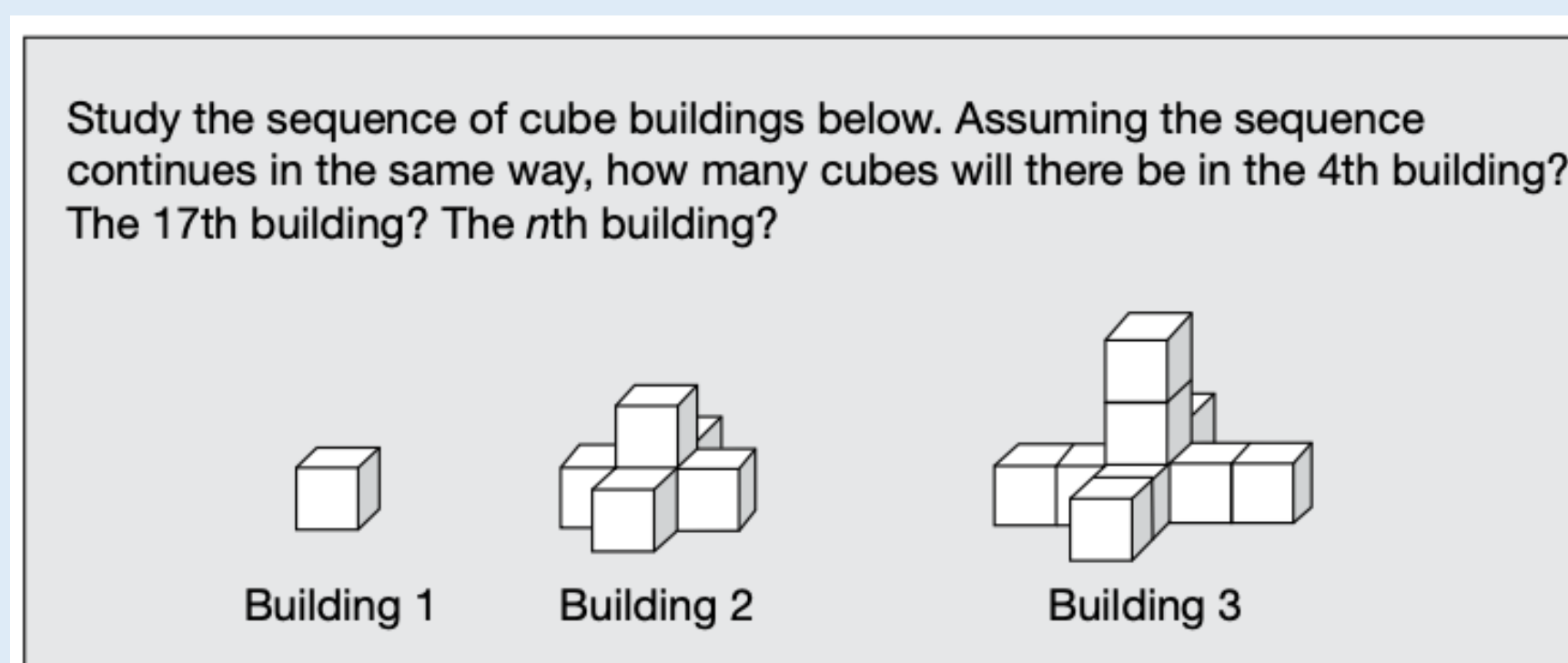
References

- National Council of Teachers of Mathematics [NCTM]. (2014). *Principles to action: Ensuring mathematical success for all.* Author.
- Van Zoest, L. R., & Stockero, S. L. (2012). Capitalizing on productive norms to support teacher learning. *Mathematics Teacher Educator, 1*(1), 41-52.
- Yackel, E., & Cobb, P. (1996). Sociomathematical norms, argumentation, and autonomy in mathematics. *Journal for research in mathematics education, 27*(4), 458-477.

Thai Mathematics teachers' perspectives about **teaching ideal classes** seem to **support more productive sociomathematical norms** than their perspectives on classroom norms when **teaching realistic classes.**



Some Encouraging Examples of Teachers' Perspectives that Support Productive Sociomathematical Norms



Task used in the interview (Van Zoest & Stockero, 2012)

T1 (Demonstration School/ 33 years of teaching/ Both Classes)
"I will encourage them to read the task and then develop their thinking by using questions".

T2 (Demonstration School/ 17 years of teaching/ Ideal Class)
"Ideal-class students would generate questions to ask their peers".

T3 (Government School/ 4 years of teaching/ Ideal Class)
"I have more questions for ideal-class students".

T4 (Government School/ 9 years of teaching/ Both Classes)
"I will collect how students develop their skills of generating questions and try to construct a norm in a class that I will use their curiosity by asking questions to peers to assess their learning outcomes".

T5 (Demonstration School/ 5 years of teaching/ Both Classes)
"If the students want me to validate whether their solution is right or wrong, I will ask students to explain their thinking to me rather than focusing on the final answer".

T6 (Private School/ 4 years of teaching/ Both Classes)
"In both ideal and realistic classes, rather than focus on asking students what the answer is, I would ask them what makes you decide whether this is an answer? And why do you think like that?".