



Title	A story of his own lesson: an example from Hong Kong
Author(s)	Mok, IAC
Citation	The 15th Biennial EARLI Conference for Research on Learning and Instruction, Munich, Germany, 27-31 August 2013.
Issued Date	2013
URL	http://hdl.handle.net/10722/190207
Rights	Creative Commons: Attribution 3.0 Hong Kong License

Mok, I.A.C. (2013). A story of his own lesson: An example from Hong Kong. In *Symposium: Studying Teaching Competence in Mathematics Classrooms Cross-nationally, in European Association for Research on Learning and Instruction (EARLI) 15th Biennial Conference*, Munich, Germany, 25-31 August 2013.

A Story of His Own Lesson: An Example from Hong Kong

Ida Ah Chee Mok, University of Hong Kong

Abstract

The paper describes the practical realisation of competence in the classroom of an 8th grade Hong Kong mathematics teacher. The teacher was selected as competent on the recommendation of local researchers. Video of 18 consecutive lessons, three post-lesson teacher interviews, and thirty-six post-lesson student interviews provided a platform for understanding the teacher's teaching philosophy in practice.

Mr. X was a teacher with more than twenty years of experience in both primary and secondary mathematics teaching. He was active in teaching, curriculum development and research activities.

The lesson videos and the teacher and student interviews were analysed. Results show that the main features in Mr X's teaching philosophy were:

- Every unit or lesson had its own importance and climax.
- Basics were important.
- Establishing students' confidence and valuing students' contributions was essential.

These beliefs were reflected in his actual practice in the lessons and the students' comments also demonstrated their appreciation of the teacher's professional actions. In this time of educational cynicism, Mr X's story, elaborated through analysis of classroom video records and post-lesson interviews with the teacher and his students, provides a welcome portrayal of competence successfully practiced.

Extended Summary

The paper begins with the observation of the paradox of the Chinese Learner (Biggs and Watkins, 1996) that Chinese students consistently gave outstanding performance in international studies while the image of their learning environment was reported as mostly teacher-directed and non-conducive to learning. Nonetheless, simplified argument can only give a partial understanding of the reality, therefore opportunities are needed for reports and interpretations from multiple educational, philosophical and cultural positions (Clarke, 2006). On the other hand, concerning what makes a competent teacher, there are some shared values and approaches among researchers (e.g., Schoenfeld and Kipatrick, 2008). The teacher needs to have proficiency in the necessary subject matter knowledge, curriculum in context, understanding for the students, pedagogical ideas and the ability to put the good ideas into practice. This capacity involves the ownership and putting into practice of the knowledge in various domain (Shulman, 1986; Krauss, et al., 2006). Therefore, unfolding the teacher's thinking and rationale

purporting his planning, decision-making and evaluation of the lesson will be very practical means to know what may constitute the competence in his teaching.

In this paper, I attempt to seek an answer for the meaning of “competence” in the context of Hong Kong based on the practice of a competent teacher. This paper reports a case analysis of the teaching of algebraic equations for grade 8 by a competent teacher developed from the data of the Learner’s Perspective Study (LPS) (Clarke, et al., 2006). The analysis looked into the teacher’s interviews and the teacher’s lessons. Based on the teacher’s perspectives on his own lesson, the paper aims to unfold the characteristics of the teacher’s teaching practice under the reported unfavorable image. The key questions are:

- What are seen as important from the teacher’s perspective?
- What does the teacher do in the lesson to help the students learn the subject matter?

The teacher Mr. X had more than twenty years of experience in both primary and secondary mathematics teaching. He was active in teaching, curriculum development and research activities; receiving very good recommendation by his school principal, colleagues and students. Furthermore, from the student interviews in the project, a high proportion of the students (31 out of 34) said that they liked the teacher and their mathematics lessons.

A total of 18 consecutive 8th grade mathematics lessons were recorded for the project spanning over three weeks. The teacher was interviewed by the end of the week. In each interview, the teacher was invited to choose a lesson during the week to give his comments. A video-stimulated technique was used. The teacher could review the video of his chosen lesson and give his comments for the lesson. Mr. X showed high degree of reflective and very clear mind of what he has planned for his students. At the same time he demonstrated competence of strong guidance, meeting the students’ need in a highly competitive school system where students need to show performance in examinations.

The teacher was asked to choose a lesson to comment in each interview. Generalized from the teacher’s explanation for his choice of lessons, the mathematical content and the basic were important. In the interview, the teacher stopped the video and commented on the episodes that he saw as important. Analysis showed that the teacher showed great concern for the content of the lesson. For 9 out of 11 of the episodes, the teacher mentioned about some mathematics content such as the meaning of factorization, means to handle symbols, specific examples in his design or specific student example. When the teacher has a philosophy for what is good and necessary for the learning of mathematics, for example in this case the fundamental understanding linking to factors of numbers, the concept of HCF, some traditional habits when doing this kind of mathematics problems; he also needs the aptitude and capability to put the ideas into practice. Nearly in all episodes including those that he referred to specific content, his concern for students was explicit. He recalled vividly the students’ responses and

examples used in the lessons and his rationale supporting his actions and thinking showed a variety of pedagogical concern and support for the students' learning. He arranged the teaching contents with an expectation that the students could build a foundation in mathematics including knowledge and habits. He intentionally helped students building up their confidence by giving opportunities so that the students could be aware that they had achieved some goals, for example, to provide an example illustrating a new concept. He was aware of his good relationship with the students and was readily available to attend to their queries. Two snapshots of the lesson transcripts were chosen to illustrate how the teacher had engaged students into an understanding of the concept of "factorization" in the class interaction and deliberate choice of examples.

Based on the teacher's story, the results show that the role of a competent teacher is multifaceted. The role of the teacher embedded in the Chinese culture is indeed very important and complex. A teacher sometimes may be a role model, a demonstrator, a mentor or even a friend. Despite all the inflation of demands, a strong leading role played by the teacher remains important in the lessons. The report in the paper helps explain to a certain extent how a teacher may possibly help students perform within the limitation of large class size and limited time for completing the content stipulated in the curriculum.

References

- Biggs, J.B. & Watkins, D.A. (1996). *The Chinese learner: Cultural, psychological, and contextual influences*. Hong Kong: University of Hong Kong, Comparative Education Research Centre / Melbourne: The Australian Council for Education Research.
- Clarke, D., Keitel, C. and Shimizu, Y. (Eds.) (2006). *Mathematics classrooms in twelve countries: The insiders' perspective*. Rotterdam: the Netherlands: Sense Publishers.
- Krauss, S., Brunner, M., Kunter, M., Baumert, J., Blum, W., Neubrand, M., Jordan, A. (2008). Pedagogical Content Knowledge and Content Knowledge of Secondary Mathematics Teachers. *Journal of Educational Psychology*, 100(3), 716-725).
- Schoenfeld, A. & Kilpatrick, J. (2008). Towards a theory of proficiency in teaching mathematics. In Wood, T. (Series Ed.) & Tirosh, D. (Vol. Ed.). *International handbook of mathematics teacher education: Vol. 2. Tools and Processes in Mathematics Teacher Education*, 321-354. Rotterdam, Netherlands: Sense Publishers.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.