

"What knowledge is essential to their (teachers') work? ... How is such knowledge generated and confirmed? Indeed, dare we even call it knowledge in the strict sense of the term? Is not much of what guides the actions of teachers nothing more than opinion, not to say out-and out guesswork? ... If any of what teachers claim to know about something qualifies as knowledge (and who dares deny that some does?), what can be said of its adequacy? ... is there more to teaching than the skilled application of something called know-how? If so, what might that be?"

Philip Jackson (1968, p. 1)

### **Conceptualizing Teacher Knowledge**

"The research literature on teacher knowledge is characterized by a tension between the different views of what counts as professional knowledge and even how to conceptualize knowledge." (Munby, Russell and Martin, 2001)

# Teacher knowledge as "practical" knowledge

- action and decision-oriented nature of teachers' everyday practice
- oriented to particular context, hence highly experiential and personal
- · informed by implicit theory of knowledge
- five knowledge domains: subject matter, curriculum, instruction, self, and the milieu of schooling
- Relationship between knowledge and practice: "knowledge of practice" and "knowledge mediated by practice"

(Elbaz, 1983)

# Teacher knowledge as "personal" narratives

- experiential and embodied in teachers' narratives of their lives
- theory and practice is unified through "narrative unities" of experience of the teacher;
- "a kind of knowledge carved out of, and shaped by, situations; knowledge that is constructed and reconstructed as we live out our stories and retell and relive them through processes of reflection." (Clandinin, 1992, p.125)

(Clandinin and Connelly, 1995)

# Teacher knowledge as content knowledge

- Conceptions of teacher knowledge as practical knowledge present a truncated view of teacher knowledge
- Teacher knowledge should encompass theoretical as well as practical knowledge of the subject matter
- Little attention has been paid to teachers' subject matter knowledge, how it is transformed from teacher knowledge to content of instruction, and this relates to what students have learnt
- Proposed three categories of content knowledge: subject matter content knowledge, pedagogical content knowledge and curricular knowledge; and four other categories: general pedagogy, learners, educational aims, and other content

Shulman (1986)

### Teacher knowledge as "situated knowledge"

- contextually developed as practitioners respond to the contexts in which they operate
- "the problem was defined by the answer at the same time an answer developed during the problem, and ... both took form in action in a particular, culturally structured setting" (Lave, 1988, p.2)
- setting, activity and mind are connected through their constitutive relations with "the person-acting"; hence unit of analysis should be "the whole person in action, acting with the settings of that activity" (Lave 1988, p. 17).
- learning is participation in social practice (Lave & Wenger, 1991); learning and knowing is "an engagement in changing processes of human activities" (Lave, 1993, p. 12; see also Tsui et al., 2008

### Re-examining Knowledge

- "knowing that" and "knowing how" cannot and should not be distinguished; they do not exist independent of each other (Ryle, 1949)
- tacit knowledge is an indispensable part of all knowledge
- knowledge of theory cannot be established until it has been used extensively to interpret experience; both theoretical and practical knowledge are referred to as "knowing". (Polanyi, 1966)

### **Dialectics of Theory and Practice**

- The skilful practice of professionals reveals a kind of knowing which does not stem from a prior intellectual operation; knowing is in the action itself. (Schön, 1983)
- \* "A dialectical relation is more than a declaration of reciprocal effects by two terms upon one another. ... A dialectical relation exists when its component elements are created, are brought into being, only in conjunction with one another." (Lave 1988, p. 146)

## **Knowing and Doing**

Zhu Xi [朱熹] (Confucian philosopher, 1130-1200)

When you know something but don't act on it, your knowledge of it is still superficial. After you've personally experienced it, your knowledge of it will be much clearer and its significance will be different from what it used to be. (*Zhu Xi*, Chapter 9, 9.1a:6/148:5; translated by Gardner, 1990, p. 116)

# Learning (xue xi: learn and practice) Dialectics of Learning and Doing



"Is it not a pleasure, as you learn you try it out at due intervals?" (Confucius: The Analects)
學而時習之,不亦說乎。 《孔子:論語》

## Teacher Knowledge Development (jiaoxue, 教學: teach and learn)

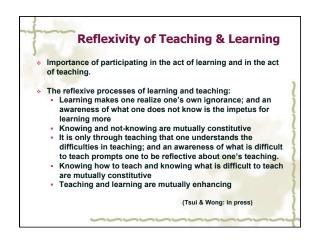
"Learn and you know your own deficiencies
Teach and you know the difficulties (in teaching)
You know your own deficiencies and you are able to
improve yourself

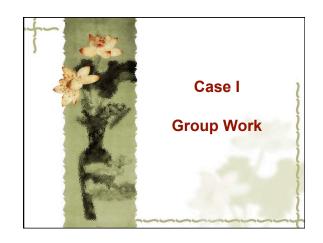
You know the difficulties (in teaching) and you are able to strengthen yourself

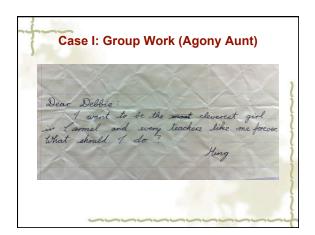
Therefore it is said that teaching and learning are mutually strengthening."

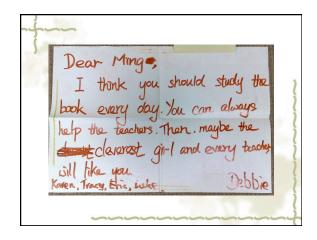
(Xueji, translated in Gao, 2005, p. 1)

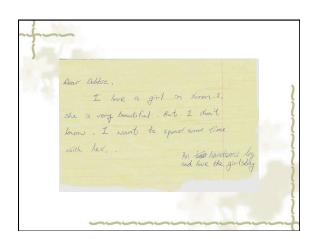
學然後知不足,教然後知困。知不足,然後能自反也。 知困,然後能自強也。《學記》

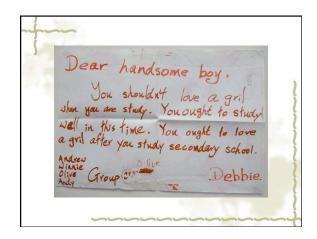


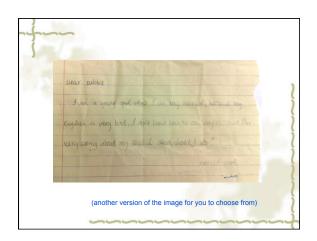


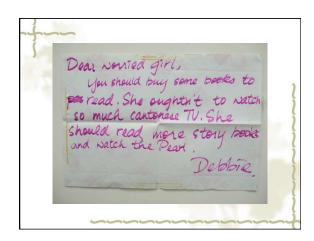




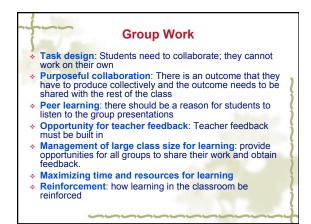


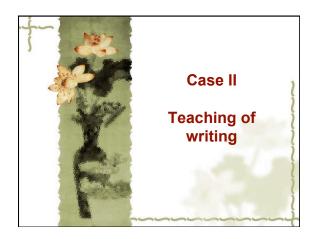


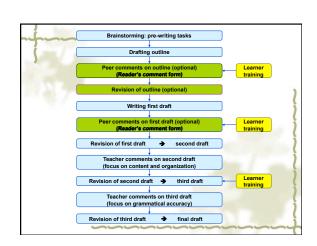












### **Concluding Remarks**

"Knowledge is not just one more factor to be added in with personality, aptitude and social factors to account for expertise. .... knowledge is part of expertise - a large part of what must be explained and not part of something that lies in the background as part of a pattern". (Bereiter & Scardamalia 1993, p. 44)

Understanding the relationship between theory and practice is central to understanding the nature of teacher knowledge.

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