

DISTINCTIVE QUALITIES OF EXPERT TEACHERS

Distinctive Qualities of Expert Teachers

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## Introduction

In Chinese culture, age and experience go hand in hand. Old people are considered to have wisdom because of their rich experience and hence are held in great respect. In the teaching profession, veteran teachers who are highly skilled pedagogically with deep knowledge of their subject disciplines play an important role in providing academic leadership in schools. For example, a model for mentoring novice teachers commonly adopted in China is a one-on-one mentoring practice referred to as “the old guiding the young” (*lao dai qing*) [老帶青]. Each novice teacher is assigned a “backbone” teacher (*gugan*) [骨幹] whose professional authority is not based on his/her official position in the school but on his/her pedagogical expertise developed out of years of experience. Novice teachers receive close guidance from this “backbone” teacher on all aspects of their work as a teacher: They observe their mentors in action in the classroom and are also observed by them and receive critical feedback and specific suggestions for improvement. The performance of a novice teacher is often attributed to the support given to him/her by his/her Teaching and Research Group (TRG) and the guidance from the “backbone” veteran teacher (Guo, 1999, 2005; Hu, 2005; Ma, 1992; Wong & Tsui, 2008). In Hong Kong, mentoring practice is much more loosely organized. Even when a novice teacher is assigned a specific mentor, the relationship is not as close. Nevertheless, similar to the teaching profession in China, mentors are usually highly successful veteran teachers who are held in great respect and

they are usually given administrative and academic responsibilities. The question that this paper attempts to address is what are the *distinctive* qualities of these successful veteran teachers, referred to as expert teachers in this paper, that distinguish them not only from novice teachers, but more importantly, from experienced non-expert teachers? In addressing the above question, data from the case studies of four ESL teachers are used and social and developmental perspectives of expertise are adopted in the analysis of data. In the following section, I shall elaborate on these two perspectives.

#### Social and Developmental Perspectives of Expertise

Earlier studies of teacher expertise were influenced by an information processing model of the mind which saw cognitive processes as taking place in the mind of the individual and as independent of context (for example, Chase & Simon, 1973; Glaser & Chi, 1988). Such model has been challenged by ethnographic case studies of teachers' lives which show that the knowledge and skills that teachers develop are closely bound up with the context of their work and their personal histories. More recent studies of expertise emphasize its social or social psychological nature. They maintain that expertise does not just reside in the individual, but also in the interaction between the individual and the context in which they operate. The context involves the current state of knowledge in the relevant domain and the instantiation of that knowledge in society by the institutions, the practices and the individuals (see the collection

of studies in Ferrari, 2002). As Clancey has pointed out, “Every human thought and action is adapted to the environment, that is, *situated*, because what people *perceive*, how they *conceive of their activity*, and what they *physically do* develop together.” (Clancey, 1997a, pp. 1-2, italics original). In other words, knowledge must be seen in the context of social activities. To know is to engage in a socially constructed activity in a certain way (Clancey, 1997b). The distinctive knowledge held by expert teachers therefore must be understood in terms of their ways of being as teachers in relation to their contexts of work of which the teachers themselves are a part.

In many expertise studies, expertise is seen as a *state* of superior performance achieved after a number of years of experience and practice and it is characterized by efficiency, automaticity, effortlessness and fluidity. Hence, the notion of “expertise” is often bound up with years of experience. While experience is a necessary condition for the development of expertise, it is not a sufficient condition. For example, Bereiter and Scardamalia (1993) have found that, in their study of expert and less competent writers, thousands of hours of practice do not necessarily lead to expert performance; many writers just become bad fluent writers: Expert writers work much harder and longer hours to complete a writing task than non-expert writers because they set high standards for themselves and respond to the task as a challenging one whereas non-expert writers tend to take the task as a simple one. Similarly, in problem-solving, they have found that experts solve problems that increase their expertise whereas non-experts tend to solve problems that do not require

them to extend themselves. They have further observed that when conscious efforts to solve problems are replaced by routines which have been developed over time, experts will re-invest the mental resources freed up by the use of routines to tackle problems at a higher level whereas non-experts will simply solve a diminishing number of problems, or will invest their mental resources elsewhere. In other words, the *critical* difference between experts and experienced non-experts lies in the *way* they complete the task or the *kinds* of task that they take on. Bereiter and Scardamalia have pointed out that it is when people “work at the edge of their competence” (1993, p. 34) to tackle increasingly difficult problems to extend their competence that they develop expertise. They have argued that expertise should be seen as a *process* rather than a *state*.

Along similar lines, Ericsson (2002) has argued for a distinction between mere participation and “deliberate practice”, that is, engagement in specially designed training activities (see also Gardner, 2002). He has observed that the striking difference between the expert and the average performer results not just from the duration of engagement in the activity but the types of domain-related activity that they choose. He has also made a distinction between everyday skill, such as driving cars, and expert performance, such as car racing. While the former is characterized by automated performance, the latter is characterized by continued improvement with increased experience and deliberate practice. He has pointed out that “Expert performers counteract the arrested development associated with

automaticity by deliberately acquiring and refining cognitive mechanisms to support continued learning and improvement” (Ericsson, 2002, p. 39). In other words, it is by resisting automaticity and the reliance on habitual performance that one develops expertise. They have proposed that one of the key steps in the study of expertise is to account for the *processes* and the *learning mechanisms* that mediate or support the improvements from experience (see also Ericsson & Smith, 1991).

So far, most studies of expertise have focused on the detailed analysis of superior performance; little has been done on expertise from a developmental perspective. Ericsson (2002) has lamented the lack of systematic study of experts’ development and the anecdotal nature of the evidence used in the literature on expertise. This paper is an attempt to characterize the distinctive qualities of teaching expertise through a systematic study of four ESL teachers who are at different stages in their professional development from social and developmental perspectives.

#### The Four ESL teachers

The data drawn on in this paper consist of case studies, spanning 18 months, of four ESL teachers in Hong Kong. These teachers’ personal histories, professional development, classroom practices and the knowledge embedded in the teaching act were investigated through the analysis of lesson observations, interviews with teachers and students, reflections by teachers,

and artifacts such as lesson plans, curriculum materials and student work. (For a detailed report of the findings, see Tsui, 2003).

At the time of the study, all four ESL teachers were teaching in the same school. The school is located in a government subsidized housing estate for people in the lower income bracket. Most of the students are from working class families and their parents do not speak English. When the study was conducted, Marina was in her eighth year of teaching<sup>1</sup>, Eva and Ching were both in their fifth year of teaching, and Genie in the second year of teaching. Marina was identified by the school principal and her colleagues as an outstanding teacher. These four teachers had had different disciplinary training. Marina majored in translation, Ching and Genie in English, and Eva in sociology. All of them entered teaching with no professional training. Marina enrolled on a professional program in her fourth year of teaching and Ching in her fifth year of teaching. Neither Eva nor Genie had had any professional training when the study was conducted.

### Critical Features of Expertise in Teaching

While some of the characteristics of expert teachers outlined in expert-novice comparisons can also be found in Marina, the expert teacher, not all of them are *critical* features, critical in the sense that they are important indicators of expertise and not just of experience. From the analysis of data, it appears that the *critical* differences between expert and non-expert teachers

(including novice and experienced teachers) are manifested in three dimensions: first, their capabilities to integrate various aspects of knowledge in relation to the teaching act; second, the way they relate to their contexts of work and their understanding of teaching so constituted; and third, their capabilities to engage in reflection and conscious deliberation.

### *Integrating Aspects of Teacher Knowledge*

It has been pointed out by a number of researchers that teacher knowledge as realized in the teaching act is an integrated whole (see for example, Calderhead & Miller, 1986; Feiman-Nemser & Floden, 1986). The case studies suggest that the extent to which teachers can integrate the various aspects of teacher knowledge *to bring about effective learning* is one of the critical features of expertise. In the investigation of teacher knowledge in Tsui (2003), I focused on two major aspects of classroom teaching that were intertwined: the management of learning and the enactment of the ESL curriculum.

*Management of learning: Learning objectives and organization of learning.* To achieve high quality learning, it is essential that the teacher is able to integrate the intended object of learning with the way learning is organized. Because of the limit of space, I shall only cite the data from the first two lessons taught at the beginning of the school year by two of the teachers studied.



It has been pointed out in the research literature that the difference between effective and ineffective classroom managers lies in the former being able to prevent disruption in the classroom by means of well-established classroom norms and routines, hence allowing them to devote more time to teaching. Hence, expert teachers often spend considerable amount of time at the beginning of the school year explaining the procedures and rules to the students so that the latter know what is expected of them (see for example, Calderhead, 1984). The first two lessons of the school year taught by these four teachers were therefore analysed to see if there were critical differences in their management of learning.

The findings show that, contrary to what was reported in the literature, Genie the novice teacher and Ching the experienced teacher spent a lot of time in these two lessons establishing norms and routines, largely out of context. Their main concern was to make sure that students understand and abide by the rules so as to prevent disciplinary problems later. By contrast, both Marina and Eva went into teaching straight away and introduced rules, norms and routines as they arose naturally and meaningfully from the teaching situation.

Marina and Eva taught the same level/grade (S2, that is, Grade 8) and they prepared the lessons together. The intended objects of learning of the lesson comprised of a linguistic object of using of adjectives to describe people and a communicative object of using the descriptions to introduce each other as the students came from different S1 (Grade 7) classes. Both Marina and Eva were new to their classes. Marina started the lesson by introducing

herself, using three adjectives to describe herself: “hardworking”, “punctual” and “talkative”. When she explained the adjective “punctual”, she established the rule that students must come to class on time, and when she explained the adjective “talkative”, she stated that when they talk in class, they must speak in English, a rule which she enforced consistently throughout the year. Eva proceeded in a similar fashion.

However, in organizing learning to achieve the learning objects, there were important differences between them. Marina asked the students to write down three adjectives to describe themselves and not let their neighbors see what they had put down, thereby creating an information gap between them. This information gap created a communicative need for students to introduce themselves to their neighbors. Students were asked to explain to their neighbors why they had used the adjectives to describe themselves. This served the communicative purpose of getting to know each other. She then asked some students to introduce their neighbors to the rest of the class. As many of the classmates did not know each other, the introduction was meaningful and communicative.

Like Marina, Eva started the lesson by using two adjectives to introduce herself. After this, she asked the students to put down two adjectives to describe themselves on a piece of white paper and their names on a piece of yellow paper. She collected them in two separate bags. After this, she pulled out a piece of yellow paper and read out a name, and then asked one student to pull out a piece of white paper and read out the adjectives. She then asked the

class whether they agreed that the adjectives were adequate descriptions of the named classmate. As many students did not know each other, they were unable to say whether the descriptions were correct or not. The activity became solely a practice of linguistic forms rather than the use of linguistic forms for communication. Therefore, although Eva's first two lessons bore some resemblance to Marina's lessons, there was a lack of integration in the organization of learning and the objects of learning.

*Enactment of ESL curriculum: Integration versus dichotomization.* The analysis of teacher knowledge embedded in the planning and enactment of the ESL curriculum showed that compared to the other three teachers, Marina's knowledge is clearly most rich and most elaborate. No matter whether she was planning a unit, a lesson or even a single activity, she was able to integrate all aspects of teacher knowledge as outlined in Shulman (1986). The critical difference seems to lie in these four teachers' understanding of teaching and hence the extent to which they dichotomized or integrated the various aspects of teacher knowledge. Let us consider how they dealt with a major concern of all four teachers, that is, how to make their teaching interesting to students.

Marina was described by her students as a teacher who "doesn't just teach" and her lessons were "fun". Her understanding of teaching was how she could best achieve the learning objectives from the students' perspective rather than from her own perspective. Therefore when she selected materials and designed activities, she put herself in her students' shoes and thought about

what they would like to do and not what she would like her students to do. For example, in designing the teaching of the bare infinitives, she selected a song about parents making children do many things that they do not like. She took away all the verbs after the bare infinitives “make” and “let” and asked the students to put down what they would make or let their children and students do when they became parents and teachers. Many of them put down things that they were not allowed to do. They were able to use the bare infinitives very well and they enjoyed the activity thoroughly. Marina articulated her thinking behind the activity as follows, “I feel that students want to be adults. I’ll think about what I would do if I were in their shoes. I think they would also like to imagine what they would do if they were in my shoes. I guess they would be interested to see how they could boss you around if they had the opportunity.” (Tsui, 2003, p. 197). In Marina’s teaching, the “fun” element was always integrated with the achievement of the learning object.

Eva’s teaching was also very lively and full of fun. Like Marina, she attached a great deal of importance to making her lesson interesting. However, in her personal conception of teaching, she placed students’ interests as her “top priority” *as opposed to* student learning. She saw the goal of teaching as inculcating moral values and raising social awareness whereas the content of learning was only a means of achieving this goal. She said, “My concern for students is greater than my concern that students learn something”. For example, she often wrote her own reading comprehension texts instead of using passages from the textbook as a way of creating “space” for her to raise

students' awareness of social issues and moral values. She was not particularly concerned about what kind of reading skills or strategies she was helping students learn. She said, "From the point of view of moral education, I have achieved the aim." She felt that she might not be able to become a teacher who was good at teaching, but she could become a good teacher. In other words, Eva dichotomized her concern for students and bringing about learning, and being a good teacher and being good at helping students learn.

A similar dichotomy was identified in Ching's teaching, though for very different reasons. In her personal conception of teaching, Ching placed a great deal of emphasis on helping students in their academic studies. For her, "to teach" was to present something that she knew to her students effectively. She also saw a good teacher as someone who was able of keeping things under control. Though she was apprehensive about students getting out of control when they played games, she still tried to "inject more fun elements to make my [her] students enjoy the lesson". Therefore, when planning a lesson, her major concern was to find activities which interested her students. Consequently, she used activities which she felt students would enjoy even when they did not help to achieve the learning objectives. For example, in teaching "comparatives", because she was not able find an appropriate activity, she used an activity called "Top of the World" which required students to use "superlatives" to identify fellow students who had characteristics such as being the tallest, strongest, cleverest, and so forth. She explained that this was because she wanted to "motivate the students and get them involved (in

activities)” first. She was fully aware of the discrepancy between the activity and the learning objective, and she compensated for it by getting students to construct sentences using comparatives afterwards. In other words, the activity which was designed as a meaningful contextualization of the use of superlatives was adopted by her merely as a game, and the form-focused task of constructing comparatives was taught as an end rather than as a means to a communicative end. As was the case with Eva, Ching’s instructional objectives and students’ interests were dichotomized.

Genie had problems getting her students engaged in class. In her personal conception of teaching, a successful English teacher was one who was able to generate a lot of interaction in the classroom. Therefore, she assessed whether her lesson had gone well mostly on the amount of active participation. The question of whether the activities she used help to achieve the instructional objectives did not figure in her discourse. For example, she asked her students to draw illustrations of a reading comprehension passage and she was very pleased when the students produced nice pictures. However, when asked in what way the pictures demonstrated their understanding of the passage, she replied, “after presenting [the pictures], they are supposed to have understood the main content [of the text].” (Tsui, 2003, p. 252) The integration of instructional objectives and the activity did not appear to be an issue to Genie.

The above evidence suggests that for Marina, instructional objectives and students’ interests were intertwined and they constituted the teaching act.

By contrast, the other three teachers, influenced by their personal conceptions of teaching, attended to students' interests at the expense of achieving the instructional objectives.

*Relating to Contexts of Work and Exploiting Situated Possibilities*

Research on teacher knowledge has pointed out that the knowledge held by teachers is constituted by their specific contexts of work and their own understanding of and responses to the contexts (see for example, Putnam & Borko, 2000; see also Lave, 1988). This kind of knowledge has been referred to as "situated knowledge" (see for example, Lave & Wenger, 1991; Leinhardt, 1988). Benner, Tanner & Chesla (1996) have pointed out that "situated" means that one is neither totally determined or constrained by the specific context, nor is one completely free to act in whichever way one wants. Rather, "there are certain ways of seeing and responding that present themselves to the individual in certain situations, and certain ways of seeing and responding that are not available to that individual." (p. 352). They have referred to this as "situated possibilities" (ibid.).

The contexts of work for the four teachers were largely similar in the sense they were teaching in the same school. However, the ways in which they related to the context of their work were different and the knowledge so constituted was therefore different.

One example is the way they responded to the contexts for learning English. In Hong Kong, although English is a second language, it is not widely

used for everyday interaction. However, one can see plenty of bilingual written material in English and Chinese, such as advertisements, signage and poster. The students in this school have had very limited exposure to English at home because they were mostly from working class families and their parents knew very little English.

Marina was able to see the “situated possibilities” afforded by her context of work and the wider linguistic context. By exploiting these possibilities, she created a context which was conducive to ESL learning. For example, she created an “English-rich” environment by insisting on the use of English at all times in the classroom, by making use of the school and classroom bulletin boards to display students’ work in English as a means of positive reinforcement and consolidation, and by getting students involved in all kinds of extra-curricular activities which required the use of English.

She exploited possibilities for learning English in the community by asking students to look for materials in English in supermarkets, such as instructions on food packages and utensils, information for tourists from the Tourist Association, words for stationery in shops, and words for food and instructions on menus. By doing this, Marina demonstrated to her students that English was closely related to their everyday lives and that paying attention to the English around them is a very effective way of learning the language. In the process of exploiting the “situated possibilities”, Marina gained further understanding of how English language learning could be enhanced in a situation where English was almost like a foreign language in terms of its use



in everyday interaction. She formulated the view that by providing adequate linguistic support, by integrating learning inside and outside the school, by integrating the formal and the informal curriculum, it is feasible and desirable to mandate the use of English exclusively as the medium for teaching and learning in the English classroom.

Another example is the way Marina responded to the constraints of big class teaching and the lack of resources for buying teaching aids. Class size in the school was fairly big, with about 35 to 40 students in each class. Group work was a regular feature of Marina's teaching. All group work that Marina designed led to a final product and students were required to present the final product to the rest of the class so that there would be a sense of audience when they drafted the final product. However, it took a long time for all groups to make a presentation. In response to these constraints, Marina asked each group to put down their final product on a big piece of paper and to stick it on the board. This enabled all groups' products to be displayed and provided a forum for comments from the other students as well as herself so that she could provide corrective feedback and comments effectively and efficiently. When the study was conducted, the school had very little resources for buying teaching aids. In response to this, Marina made use of used materials, such as package wrappings of photocopy papers and the back of old posters and calendars, for students to display the products. Good products would be displayed on the classroom bulletin boards and the best ones on the school bulletin board for positive reinforcement and consolidation of learning.

Some of Marina's practices were adopted by the other three teachers as there was a great deal of sharing and mutual observation within the English panel. However, there were qualitative differences in the way they made sense of these practices. While all three teachers were aware of the need to get the students to use English in the classroom, their understanding of the rationale for doing this was different. Both Eva and Genie tried to enforce the "English only" rule in the classroom. Eva was persistent and this resulted in an English-rich classroom where students used English freely. However, there was little evidence that she was aware of the wider linguistic context outside the classroom and what "situated possibilities" were afforded and there were fewer strategies that exploited the specific linguistic situation in Hong Kong for English learning. Genie, on the other hand, understood the rule as a practice advocated by the English panel to encourage students to use English more and she was very much preoccupied by the technicalities of getting students to observe the rule. Ching reminded her students to use English from time to time but did not enforce the rule. She was more concerned about whether her students were able to follow her instructions because most of her students came from Chinese medium primary schools. One could say that Ching's teaching was constrained by the context and she was less able to *perceive* situated possibilities. Consequently, her classroom was much less English-rich than the other two teachers.

The use of big posters by the other three teachers is another example. Like Marina, both Eva and Ching required her students to put down the

product of their group work on big poster paper. However, this was not regularly practised in group work and they did not make use of the display of student work on big posters consistently for corrective feedback, consolidation and positive reinforcement. Ching also used big posters but when she could not find big posters, she asked the students to use A4 papers to write down their final drafts. Consequently, when their products were displayed on the board, their handwritings were so small that each group had to read out what they had written down. In other words, the use of the big posters was adopted by these teachers with only a partial understanding of the various functions that it could serve. It did not form part of their strategies to transcend the resource constraints and maximize available resources for teaching.

From the above examples, we can see two distinctive features in the way Marina related to her context of work. First, while she was fully aware of the contextual constraints, she was simultaneously aware of what “situated possibilities” were afforded. The exploitation of these possibilities opened up further possibilities for learning for her students. Second, Marina’s responses to the context reflected her capability to see the “big picture” (Benner et al., 1996, p. 142) which enabled her to formulate coherent teaching strategies that were geared to the linguistic needs of her students arising from their specific context of learning. As Bereiter and Scardamalia (1993) have pointed out, the nature of expert knowledge was situated not only in the sense that it could be applied to certain specific contexts but also in that “it gains strength from those situations” (p. 53).

*Reflective Practice: Theorizing Practical Knowledge and Practicalizing Theoretical Knowledge*

In studies of expertise, there have been conflicting views regarding the nature of expert knowledge. Dreyfus and Dreyfus (1986) have characterized experts as being able to make intuitive judgments in a manner that “defies explanation” (p. 3). The kind of knowledge that underpins that intuition is “knowing how” (as opposed to “knowing what”) (Ryle, 1949). Similarly, descriptions of teacher knowledge have emphasized that it is tacit in nature and cannot be articulated (see Polanyi, 1966; Schön, 1983). Dreyfus and Dreyfus have further observed that expert performance is non-reflective and that experts engage in reflection or deliberation only when they have time or when the outcome is critical and when there is a great risk or responsibility involved (see Dreyfus & Dreyfus, 1986, 1996; Dreyfus, 1997). For them, reflection or deliberation is “useful” at the highest level of expertise and it can “enhance the performance of *even* the intuitive expert” (1986, p. 40, my emphasis). In other words, according to them, though reflection and deliberation have a role in expert performance, it is by no means critical. In contrast, the ability of professionals to reflect on and to reframe their understanding of the situation lies at the core of Schön’s theory of professional knowledge (Schön, 1983). As Eraut (1994) has pointed out, conscious deliberation is at the heart of professional work. The question is how far is reflection and conscious deliberation a critical feature of expertise?

The findings of the case studies show that one of the critical differences between expert and non-expert teachers is their capability to engage in conscious deliberation and reflection. Such engagement involves making explicit the tacit knowledge that is gained from experience. I refer to this capability as “theorizing practical knowledge”. It also involves being able to make personal interpretations of formal knowledge<sup>2</sup>, through teachers’ own practice in their specific contexts of work. I refer to this capability as “practicalizing theoretical knowledge”.

Both Marina and Ching held images of the teacher as a figure of authority when they started teaching. Marina felt that the essential qualities of a teacher were that they should be kind and caring whereas Ching emphasized qualities such as being academically competent, knowledgeable and “qualified”. Marina’s personal conception of teaching was to make learning enjoyable for students while Ching’s was to ensure that learning proceeded in an orderly fashion. In the course of Marina’s professional development, she tried to reconcile the conflicting images of the teacher as a figure of authority and the teacher as a kind and caring person. She also tried to resolve the apparent dichotomy of making learning enjoyable and maintaining discipline in the classroom. For the first three years of her teaching, she was highly successful in the latter but not the former. However, during the course of these three years, two critical incidents occurred in which because of her severe disciplinary measure, not only was her relationship with her students adversely affected but also the attitude towards learning of the students penalized. She

reflected on how disciplinary problems should be handled from the students' perspective. She reframed her understanding of classroom discipline from maintaining order in the classroom to managing the classroom for learning. Such reframing enabled her to be judicious about when she needed to be strict and when she could be more accommodating, to distinguish between on-task noise and off-task noise, and between disruptive behavior which must be curbed and cheeky behavior which could be turned into opportunities for learning. The reframing also changed her role from an authoritarian teacher to an "agony aunt" to whom the students could turn when they had problems. Marina's own articulation of how she resolved the apparent dichotomy between maintaining discipline and making learning enjoyable for students became a personal reference for her future actions. I refer to the knowledge so developed and articulated as "theorized practical knowledge".

There is another sense in which Marina's knowledge can be characterized as "theorized practical knowledge". It is the kind of knowledge that she developed as a result of her own learning and teaching experience and was made explicit, enriched and theorized when she came across "formal knowledge". For example, she had been using information gap activities, group work, and authentic texts in her teaching and had introduced various language learning strategies to students very early on in her teaching career with no knowledge of their theoretical underpinnings. The theoretical input that she obtained in the professional programs enabled her to theorize her personal practical knowledge. The input not only enhanced her understanding

of her existing practices but also provided new insights. For example, she was not aware of the importance of structuring group work to facilitate collaboration among students. The “formal knowledge” that she obtained changed her understanding of group work from merely providing an opportunity for students to talk in English to bringing about collaborative learning. Another example is when she was appointed head of the English panel (English Department), she understood her role as purely administrative. She came across the concept of the panel chair as a “change agent” for the first time on a refresher course, and it had a strong impact on her. Although she had been leading her panel in making some curriculum changes, she did not realize she could achieve a great deal more. Empowered by the conception of her role as a “change agent”, she embarked on bringing about a major change in the teaching of writing from a product oriented approach to a process oriented approach. In the course of this, Marina grappled with playing out her role by working *with* the teachers rather than working *on* the teachers, and by learning from other panel chairs and colleagues. She reframed her understanding of a panel chair from an administrator to an academic leader and a mentor. In other words, Marina’s knowledge was developed through enacting her personal interpretation of the theoretical input that she received. I refer to this process as “practicalizing theoretical knowledge”.

While Marina was able to constantly reflect on her experience and question her personal conceptions of teaching and learning, Ching was less capable of doing so. For example, in the first few years, like Marina, she had

difficulty relating to her students. She attributed this to her own introvert personality, and external factors such as the low ability of the students and the language barrier created by the “English-only” policy. When her relationship with her students improved, she attributed this to the students being more cooperative and active. Unlike Marina, in her discourse, Ching seldom referred to how her understanding of her work changed. Her image of the teacher as a figure of authority, her conception of teaching as transmitting knowledge and keeping students under control, and of learning as an individual endeavour remained largely unchallenged throughout her six years of teaching.

In contrast to Ching, Eva often engaged in theorizing her role as a teacher and her classroom practices. Heavily influenced by her sociological background, Marxist theory of alienation and her involvement in social and political issues in her undergraduate days, she entered teaching with a conception of students as individuals to whom she must give personal attention, and a conception of teaching as helping students to learn “how to be a human being” (literal translation from Chinese), which means to be a person with moral standards. The social and moral values that she incorporated in the teaching materials were theorized as a way of countering the alien nature of a foreign language and making learning relevant to the students. She often engaged in a one-to-one dialogue with students during teacher-fronted teaching which sometimes derailed the general direction of the interaction. She theorized this as a means of developing a personal relationship with the



students and treating them as individuals. These examples show that Eva was constantly engaged in formulating her own personal practical theories of teaching and learning. However, her lack of theoretical input in disciplinary and pedagogical domains deprived her of the opportunity to enrich her personal theorization. Nevertheless, such theorization helped to sustain her commitment to teaching and her search for ways to improve her teaching.

Genie had conflicting images of a teacher. Like Marina, she would like to see herself as a friend and a family member to her students, and she aspired to live out this role. However, she was forced to adopt an authoritarian role in order to maintain classroom discipline. She found it difficult to reconcile the conflict. She adopted a number of measures to establish rapport with the students, such as introducing group work, competitions and games. However, she understood these measures only at a technical level and they did not bring about fundamental changes to her conception of teaching and learning until her third year of teaching when she faced a serious confrontation with one of her students who kept breaking rules in the classroom. This critical incident made her reflect on disciplinary problems from the students' perspective. She tried to understand their family backgrounds, their lives at home, and the difficulties that they encountered. She was able to empathize with the students much more than before. This changed her relationship with her students fundamentally. The capability to engage in reflection in relation to her conceptions of teaching marked the beginning of a stage in Genie's professional development in which there was a heightened awareness of the

different aspects of her work as a teacher and she could begin to theorize her practice.

From the above discussion, we can see that the two processes, “practicalizing theoretical knowledge” and “theorizing practical knowledge” are intertwined. The interaction between them is firmly rooted in practice. Marina’s expertise is developed through her engagement in reflection and conscious deliberation to theorize her work, which is not separable from her pursuit of theoretical input to make sense of her practical experience (see also Shulman, 1988).

A summary of the critical differences that distinguish expert and non-expert teachers are summarized in Table 1.

[Insert Table 1 about here]

### The Development of Expertise in Teaching

In the above discussion, I have outlined the critical differences between Marina, the expert teacher, and the other three non-expert teachers. In this section, I shall try and address the question of how and why some teachers develop into experts while others remain experienced non-experts.

The biographies of the four ESL teachers show that all three experienced teachers, Marina, Eva and Ching, went through a phase of self-doubt and reassessment of their commitment to teaching (Huberman, 1993). However, while Marina and Eva were able to move out of the phase of self-

doubt and reassessment after four years of teaching, Ching moved in and out of this phase even after six years of teaching. After Marina moved out of a self-doubt phase and progressed to a stabilization phase, she did not rely more and more on the teaching routines that she accumulated over the years and her teaching did not seem to have become more and more automatic and effortless. What kept her from “getting into a rut” (Bereiter & Scardamalia, 1993, p. 78)? The findings of the case studies suggest that exploration of and experimentation with new ideas to bring about change in learning is very important in sustaining commitment to teaching. In addition to this, there are two ways in which engagement with one’s professional work seem to be critical to the development of expertise.

### *Problematizing the Unproblematic*

As pointed out earlier, the description of experts’ work as automatic and effortless has been questioned by a number of researchers (Bereiter & Scardamalia, 1993; Ericsson, 2002; see also Eraut, 1994). This description certainly does not tally with the way Marina worked. For example, Marina spent long hours when planning lessons, putting down the steps for teaching, the questions she would ask and the kinds of response they were likely to elicit, sometimes even examples that she would give and the students she would call on to respond. She also rehearsed the lesson in her head and went over the lesson plan the night before as well as immediately before the lesson. She explained that this was because she wanted to make sure that the lesson went

smoothly. If there were hiccups, she would blame herself for being “ill-prepared”. She would put in extra effort when she taught a new topic. In other words, Marina did not treat lesson planning as something which was routinized and unproblematic; she problematized her previous lesson plan and its enactment in the light of the characteristics of the current class of students. The way she problematized her success in maintaining classroom discipline is another example. Instead of congratulating herself on eliminating disciplinary problems, she problematized it as something achieved at the expense of enjoyable learning. She worked hard to resolve the apparent dichotomy. A further example is the way Marina engaged in constant renewal of the curriculum and teaching strategies instead of simply drawing on her existing repertoire. She said, “I have to select what is good. Also, if I have already used a similar activity, I have to modify it so that ... (there is) variation.” (Tsui, 2003, p. 269). She defined “good” materials according to four criteria: clearly outlined; contextualized; lent itself to the meaningful use of linguistic forms; and fun for students. In other words, the selection and design of teaching materials were problematized as a complex process in which a number of criteria needed to be met.

Eva demonstrated a positive orientation in this process, though not to the same extent as Marina. In her second year of teaching, when she became more confident about getting through her daily teaching and was able to maintain good classroom discipline, she problematized her relationship with students by asking how she could exploit the “space” (a metaphor that she

often used) that was available to her in English language teaching to relate to her students on a personal basis and how to make her teaching relevant to the students. In her third year of teaching, she took on the coordinatorship of S2 (Grade 8). Instead of simplifying the task by just making minor changes to the materials handed down by her predecessor, she problematized the lack of continuity in the curriculum from one level to another level. She examined the course outlines of S1 and S3 and talked to the respective coordinators. Subsequently, she proposed that S1 should be seen as an introductory year to secondary education, and that S2 and S3 should be taken as one continuous unit and S4 and S5 as another. On the basis of this conception, she requested that she be “promoted” (another metaphor that she often used) to teach the same cohort of students in S3 in the following year so that she could follow them through the entire unit. When she was appointed coordinator for S2 again, she worked even harder. Her rationale was that the experience she had gained should enable her to deal with more complex tasks that she did not have the capacity to deal with previously.

In comparison with Eva, Ching was less positively oriented towards problematization. An example is the way she dealt with classroom discipline. Ching simplified the task as making the rules and norms explicit to the students at the beginning of the school year and reinforcing the rules consistently. With experience, she was able to maintain good discipline in the classroom. Although she realized that her relationship with her students was distant, she did not find that problematic. Another example is lesson planning.

Ching relied very much on the routines that she developed and what “normally worked” when she did not have enough time to make detailed preparation.

When the lesson did not go well, she attributed it to the students not following her instructions or the class not being well-disciplined. In other words, instead of problematizing the unproblematic, Ching had the tendency to “unproblematize the problematic” by attributing the causes of the problem to external factors which were out of her control.

The findings of these three experienced teachers suggest that the capability of problematizing what appears to be unproblematic is crucial to the development of expertise. As Bereiter and Scardamalia (1993) have pointed out, “... the effect of progressive problem solving is not only to advance in dealing with the complexities already known to exist but also to expand knowledge in ways that bring more complexities to light” (p. 96).

### *Responding to and Looking for Challenges*

Closely related to the orientation to problematization is the disposition to challenges. This encompasses not only how one responds to challenges that one is confronted with but also whether one looks for opportunities to extend one’s competence, both of which involve what Bereiter and Scardamalia (1993) have referred to as “working at the edge of one’s competence” (p. 98).

The biggest challenge that Marina faced was taking on the role of a panel chair (i.e., head of department). She responded to it in a way that enriched her understanding of the role and extended her capability in playing it

out. I would like to quote two examples, both of which involve quality assurance mechanisms in her school. The first one is conducting classroom observations by the panel chair. Marina was skeptical about the practice on the ground that it was not an effective monitoring mechanism since it would not allow her to see what teaching was really like behind closed doors. However, when she found that some teachers needed help in improving their teaching, instead of just reporting this in the staff appraisal form, she invited her colleagues to observe her own teaching. She also encouraged teachers to observe each other's teaching when they were trying out new ideas. She explained that teachers knew when their teaching did not go well and that it would be more effective to let them see good teaching in action. In other words, what was intended as a monitoring mechanism was turned into an opportunity for professional learning. The second mechanism was checking the grading of students' assignments to ensure that it was properly done. Initially, she focused on checking whether teachers had spotted students' mistakes and whether teachers themselves had made grammatical mistakes. However, as she learnt more about genre analysis, she shifted her focus from teachers' grading to analyzing students' writing. She discussed with teachers how they could help students write better. She shared with her colleagues journal articles on related writing problems and the relevant essays that she wrote as assignments in the masters in education program that she was enrolled in. In both cases, her reconceptualization of the quality assurance mechanisms as opportunities for professional learning involved a fundamental

change in her conception of her role from an administrator to a facilitator and a mentor.

Apart from responding to challenges, Marina also looked for challenges. Dissatisfied with the product approach to the teaching of writing adopted in her school which focused on correcting students' mistakes without allowing them to go through several drafts before final submission, she introduced the process approach to writing in all junior classes (15 classes in total). This was a major challenge to her because of its scale and the fact that most of the published work on process writing was at tertiary level and there was very little published work for secondary level teaching. Marina worked closely with Eva in exploring how to implement it in the classroom. As she gained a better understanding of how process writing could be implemented, she was able to provide guidance to her colleagues with regard to the role of peer feedback and teacher feedback, and the kind of scaffolding that should be provided, and the purposes of the various drafts. She stayed in close touch with teachers and found out what was realistically achievable in terms of the number of drafts that students should be required to produce. She also gave teachers autonomy in deciding exactly how they wished to proceed. Through responding to students' and teachers' needs, she formulated a prototype of a writing cycle which she subsequently researched (see Tsui, 2003; Tsui & Ng, 2000). The implementation changed Marina's conception of process writing from being merely a technique to help students write better to a context for collaborative learning where the teacher is not the only source of knowledge.



Eva shared some common characteristics with Marina in this respect. She was ready to take on challenges and she also looked for challenges. We have already seen in the previous section how she responded to the challenge of being the coordinator for S2 and how in the process of performing her role she formulated her conception of continuity in the curriculum. Eva took new roles assigned to her as “promotion”. This metaphor indicates that she saw such assignments as opportunities to extend her competence. The best example was her request for “promotion” to teach S4 at the end of her fourth year of teaching. When asked why she wanted this promotion, she said, “I have to try; otherwise I know so little.” However, not having adequate subject matter knowledge and professional training in teaching ESL was a big handicap for her in playing out her role as an English teacher and was a source of anxiety for her. At the end of the fourth year, she felt that she had not come to grips with teaching junior students. However, instead of focusing on enriching her pedagogical content knowledge and improving her teaching at junior levels, she tried to cope with teaching at senior levels at the same time. This proved to be beyond her level of competence and after a year’s teaching, she felt that she was “inadequate in everything”. (See Tsui, 2003, pp. 109-110). Though Eva faced this challenge with great mental strength, she was not able to engage effectively with the kind of the learning that was afforded by the challenge.

Ching faced two big challenges in her professional life, both of which occurred in her fourth year of teaching. One had to do with reconciling her

role as a newly wedded wife and her role as a teacher. Ching was faced with the moral dilemma of giving more time to her husband or to her students. Her husband reframed the dilemma for her by saying that she had “many students but only one husband”. As Belensky, Clinchy, Goldberger, & Tarule (1986), have pointed out, this reframing is typical of the sex role that is expected of female teachers. She realized that she needed more time to reflect on her teaching when her students did not respond well to her. However, she resolved the dilemma by relying on established routines and existing materials, and spending less time on her own professional advancement. This “resolution”, however, did not give Ching peace of mind. The solution that she contemplated at the time of the study, which she eventually took, was to teach in a half-day primary school so that she could spend more time with her husband. As Huberman (1993) has pointed out, teachers’ professional development is affected by their personal, social and organizational circumstances and experiences, and teachers may move in and out of various phases and types of engagement in their career (see also Sprinthall, Reiman, & Sprinthall, 1996).

In other words, when Ching was faced with difficult tasks, she tried to reduce their complexities, thereby minimizing her opportunities to extend her competence. By contrast, Eva sought to extend her capabilities; however, she was not always able to engage in the kind of learning that typified the development of expertise. This suggests that the critical difference between experts and non-experts lies not only in their willingness to reinvest mental

resources and energy in more complex tasks which extend their competence, but also in their engagement in the kinds of task which are likely to extend their competence.

### Implications for Teacher Development

From the findings outlined above, we can see that some of the characteristics of expert teachers in expert-novice studies have also been found in this study. For example, expert knowledge is elaborate, rich and integrated. The findings in this study have further shown that the extent to which aspects of knowledge are integrated or dichotomized is an important indicator of expertise. However, there seem to be some *critical* differences which have not been highlighted or captured in novice-expert studies.

While many studies of expertise have highlighted the context specific nature of expert teacher, this study has shown that it is the capability to see and to exploit “situated possibilities” afforded by the specific context that seems to distinguish experts from non-experts. While the knowledge of experts is considered largely tacit and non-reflective, this study has found that it is through the processes of reflection and conscious deliberation in which practical knowledge is theorized and theoretical knowledge is interpreted in practice that expert knowledge is developed. While expert performance has been characterized by some as automatic and effortless, this study has found that the development of expertise is characterized by constant engagement in

experimentation and exploration, in problematizing the unproblematic and in responding to and looking for challenges, thereby engaging in the kind of learning that extends one's competence.

One possible reason for the differences in the characterization of expertise in the expert-novice studies and the study reported in this paper may have to do with the kinds of expertise that have been elucidated. Skills like driving, chess playing and even skills in sports and music, could be quite different from skills in a domain such as teaching which is complex and ill-defined. Another reason is likely to be the lack of a distinction between the characterization of expert performance and the development of expertise, as Bereiter and Scardamalia (1993) have cogently argued. What appears to be effortless, fluid and automatic performance is *the result of* numerous hours of hard work in which experts engage in a continuous effort to improve themselves. Once experts lose the characteristics outlined in the *development* of expertise, they cease to perform at an expert level; they cease to be an expert.

What are the implications of this understanding expertise for teacher education? The critical features outlined in this paper will hopefully help policy makers to understand that the development of expertise requires engagement with domain-related activities which are situated in teachers' specific contexts of work for an extended period of time. Such engagement needs to be supported by reflection, conscious deliberation and theorization. Time and "space", to use Eva's metaphor, for such engagement are essential.

Veteran teachers, because of the wealth of experience that they have accumulated, could transform into expert teachers if they are well supported in the theorization of their practice. Research on teacher development has found that teachers are rejuvenated when they are given new responsibilities (Fessler & Christensen, 1992; Huberman, 1993). For example, when veteran teachers take on a mentoring role, they need to not only serve as role model for the novice teachers but also to articulate the rationale behind their pedagogical actions, and to reflect on what they take to be routine practices when they are questioned by novices (see Tsui, Edwards, Lopez-Real, 2009). It is in taking on challenges in which they need to problematize what they have always taken as unproblematic that veteran teachers' commitment to teaching could be re-invigorated or taken to new heights.

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### Endnotes

<sup>1</sup> Strictly speaking, Marina cannot be considered a veteran teacher in terms of her years of teaching experience. Nevertheless, when the study was conducted, she was one of the experienced teachers in her school who was highly respected by her colleagues and students.

<sup>2</sup> Formal knowledge is used in the sense of Bereiter and Scardamalia (1993) which refers to “publicly represented” and “negotiable” knowledge (p. 62).

Table 1

*Summary of Critical Differences between Marina and Eva, Ching and Genie*

Dimensions	Aspects				
		Marina	Eva	Ching	Genie
Integrating Aspects of Teacher Knowledge	Establishment of classroom norms and learning	Establish classroom norms and routines as they arise from the teaching situation		Establish classroom norms and routines out of context	
	Organization of learning and the object of learning	<ul style="list-style-type: none"> <li>• Learning activities helped to achieve learning objectives</li> <li>• Integrating student interests and learning objectives</li> </ul>	<ul style="list-style-type: none"> <li>• Learning activities did not help to achieve learning objectives</li> <li>• Privileging moral education over ESL learning</li> </ul>	<ul style="list-style-type: none"> <li>• Privileging fun over ESL learning</li> </ul>	<ul style="list-style-type: none"> <li>• Privileging student participation over ESL learning</li> </ul>
Relating to Contexts of Work and Exploiting Situated Possibilities	Perceiving and exploiting possibilities for ESL learning	Integrating ESL learning inside and outside the classroom	Confining opportunities for ESL learning in the classroom	Opportunities for ESL learning in the classroom constrained by contextual factors	Focusing on getting students to observe the English-only rule
	Maximize available resources for learning	Using limited resources creatively to address multiple facets of ESL learning	Modeling on Marina's use of resources	Modeling on Marina's use of resources, with a lack of understanding of the purpose	Modeling on Marina's use of resources, with a lack of understanding of the purpose
Reflective Practice	Theorizing practical knowledge & practicalizing theoretical knowledge	<ul style="list-style-type: none"> <li>• Constant reflection on experience and reframing conceptions of teaching and learning</li> <li>• Enacting personal interpretation of theoretical knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Constant reflection on experience and reframing conceptions of teaching and learning</li> <li>• Lack theoretical input in subject discipline and pedagogy to support personal theorization</li> </ul>	Conceptions of teaching and learning largely unchallenged and unchanged	Beginning to engage in reflective practice and to theorize practice