Chapter 2

Teacher Effectiveness in the New Century: Research for Development and Practice

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INTRODUCTION

Responding to drastic impacts of information technology application, economic globalization, international market competition, increasing local social-political demands, and worldwide concerns for pollution and peace, there have been rapid changes and developments in nearly every society in the Asia-Pacific region as well as in the Western countries during the 1980s and 1990s. In such a fast changing era, schools and teachers have to face numerous new problems, uncertainties, and challenges rising from their internal and external environments. To them, school goals have become more uncertain and complicated, educational tasks more demanding, expectations from various stakeholders more diverse, and accountability to the public much heavier than any time before. Particularly in the Asia-Pacific region, it is generally believed that in the coming new century, the education environment will become even more demanding due to the challenges from the mega-trends in technology, economy, and political life (Cheng, 1999; Cheng & Townsend, 2000).

In the 21st century, schools become very crucial to supporting the rapid developments of individuals and in local communities, societies, and international relations and are expected to perform a wide range of new structural, social, political, cultural, and educational functions (Cheng, 1996c, 1996e). In this connection, teachers in the era of rapid change are often required to take up expanded roles and responsibilities, including curriculum developer, new teacher mentor, staff development facilitator, action researcher, pre-service teacher educator, team leader, decision-maker, member of management board, etc. (Boles & Troven, 1996; Fessler & Ungaretti, 1994; Murphy, 1995; Tsui & Cheng, 2000). As such, teachers are inevitably in need
of continuous lifelong professional education to update themselves with new knowledge, competence, and attitudes to meet all these challenges.

It is commonly accepted that the teacher is the key element for the success of school education (Carnegie Forum, 1986; Cooper & Conley, 1991; Darling-Hammond, 1999; Education Commission, 1992; Fullan, 1998a, 1998b; Hopkins, 2000; Lieberman & Miller, 1999; Pipho, 2000; Russell & Munby, 1992; Sergiovanni, 2000). In the last two decades, policy-makers, teacher education institutions, and schools have implemented numerous initiatives in teacher education and development, aiming to improve teacher performance. Although huge amounts of resources have been invested into education reforms, the performance of students as a whole has declined at a significant rate in Hong Kong as well as other developed countries. People are becoming aware of the limitations of the traditional efforts on improving teacher performance and educational quality in schools (Education Commission, 1995a, 1999b, 2000a, 2000b).

In order to understand the complex nature of teacher effectiveness and develop an approach to maximizing it, there is a great demand for research on teaching, teachers, teacher education and on the related personal, organizational, and contextual factors. Traditionally, concepts of teacher effectiveness focus mainly on individual teachers, particularly on instruction in a classroom context, and ignore the complexity of school organizational environment or the influence of the community that may affect the role and performance of teachers at individual, group, and organizational levels. Inevitably, there is a conceptual barrier adversely affecting any initiatives on teacher education and development to maximizing teacher effectiveness. As discussed above, teachers have to perform a wide range of roles and responsibilities that may relate to teaching, school management, curriculum changes, educational innovations, teacher education, working with parents, and community services. All these suggest that the conception of research and policy initiatives on teacher education and development should be broadened to cover a wide range of changing teacher roles in a complex context if we are to maximize teacher effectiveness (Cheng, 2000a, 2000b, 2000c). In other words, we need to pursue a new knowledge base for teacher education and development in the new century.

This chapter aims to point out that teacher education and development as a field of inquiry in the new century may include at least three interrelated
domains: teacher effectiveness in the classroom; teacher effectiveness in the school organization; and teacher effectiveness in multiple school functions at multi-levels. A new knowledge base to support initiatives and efforts in teacher education and development should be built from the research in these three domains.

KNOWLEDGE ABOUT TEACHER EFFECTIVENESS IN CLASSROOM

This section will discuss the strategies for conceptualizing research on teacher effectiveness in classroom that can contribute to the knowledge base for developing teachers' professional competence and enhancing performance in teaching students.

According to Cheng (1995a) and Medley (1982), the structure of teacher effectiveness in the classroom is a comprehensive structure that integrates the teacher trait perspective, the teacher behavior perspective, and the process-product of teaching perspective to account for the relationships among teacher competence, teacher performance, student learning experience, and educational outcomes (see Figure 1). Moreover, teacher effectiveness should be regarded not as a stable characteristic of the teacher as an individual, but as a product of the interaction between certain teacher characteristics and othe r

Figure 1: Structure of Teacher Effectiveness in the Classroom
(Adapted from Cheng, 1995a; Medley, 1982)
factors of which vary according to the situation in which the teacher performs. Furthermore, the structure of teacher effectiveness should include the following important components as delineated by Cheng (1995a), Cheng and Tsui (1996), and Medley (1982):

- **Pre-existing teacher characteristics** (i.e., the set of knowledge, abilities, and beliefs that a teacher possesses on entering into teacher education program);

- **Teacher competence** (i.e., the set of knowledge, abilities, and beliefs that a teacher possesses and brings to the actual teaching environment on completion of teacher education program);

- **Teacher performance** (i.e., the behavior of a teacher that may change differently when the teaching environment is changed);

- **Student learning experience** (i.e., the experience from interactions between teacher and students in the process of teaching and learning);

- **Student learning outcomes** (i.e., the progress that a student makes toward a defined educational goal);

- **External teacher education** (i.e., education or training provided by external teacher education institutions for building up teacher competence);

- **School organizational environment** (including school organizational structure, personnel management, culture, teaching facilities, resources, school goal, and mission, etc.);

- **Classroom environment** (including existing class size and composition, pupil abilities, classroom climate, teacher-pupil relationship, etc.);

- **Curriculum** (i.e., the characteristics of planned teaching and learning content in the classroom);

- **Pre-existing student characteristics** (i.e., individual student’s previous learning experience, physical and intellectual ability, learning styles, and other personal characteristics);

- **Teaching evaluation** (i.e., activities of monitoring and evaluating teaching
performance and student’s learning experience and outcomes); and

- **School-based teacher education/staff development** (i.e., training or staff development activities organized by the school with reference to the results of teaching evaluation or the needs of teachers in teaching).

The structure assumes the following causal relationships among the components of teacher effectiveness: student learning outcomes are the product of the interactions among curriculum characteristics, student learning experience, and individual characteristics; student learning experience is affected by teacher performance, curriculum characteristics, and classroom environment; teacher performance is determined by the interactions among teacher competence, curriculum characteristics, and school organizational environment; external teacher education, school-based teacher education, and pre-existing teacher characteristics can contribute to teacher competence; and teaching evaluation based on the information from teacher performance, student learning experience, and learning outcomes can be used to facilitate the development of teacher competence through staff development activities. Basically, it is assumed that the components of the structure as depicted in Figure 1 potentially relate to teacher effectiveness in a direct or indirect way in the classroom. In order to build up the knowledge base for teacher education and development, it is important to investigate how these components are related, how they finally contribute to student learning outcomes, and what types of external teacher education and school-based staff development can make a difference in student learning outcomes in contingency upon all other factors in this structure. All these are complicated research questions.

From this theoretical perspective, there are four types of strategies to conceptualize research and explore the above research questions: the single component strategy; the relationship between two components strategy; the relationship between three or more components strategy; and the global strategy.

**The Single Component Strategy**

This strategy focuses on investigating the characteristics of only one component of the structure of teacher effectiveness; for example, a researcher may investigate some important variables or the profile of teacher competence, such as language skills, pedagogic knowledge, subject knowledge, the use of
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