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School effectiveness research in China

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Four years ago, I left an established position at a Chinese university and came to the USA to pursue my dream: to get a Ph.D. from an American university. As I end this journey, I reflect on the numerous people in my life that have made this dream a reality. Achieving this goal has been a challenging, frustrating, strenuous but rewarding experience. This degree does not only belong to me, but to the many people who have provided guidance, help, and support throughout the entire process.

First, I would like to express my sorrow to my late father, who passed away one year ago while I was in the USA, so that I did not have the opportunity to see him one more time. I know I owe him everything; however, his last words became a strong encouragement for me to finish my dissertation. He told my siblings that he was proud of me, his youngest daughter, because I have honored my family as the only child in my family to get a Ph.D. in the USA.

I am truly grateful to my dear husband Lingqi and my son Delong. My husband has been my greatest emotional supporter on my journey to getting the Ph.D. I will never forget the countless evenings when we walked around campus, sharing our joys and frustrations. We have often recalled our past life in China, reflected on our current life and studies at LSU, and dreamed of our future. It was during these walks that we gave each other the most support. I can never say thank you enough for his encouragement. My son is not only my pride but also my example. I am proud of his great achievements in the several national math competitions. His dedication to his studies has kept and will always keep me enthusiastic for studies. He supported my studies by sharing the housework. He understood my financial situation, and thus he has formed a habit of being thrifty. All these constitute a strong drive

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ABSTRACT

The major purpose of this study was to identify the processes of effective schools in China, thereby enriching the international study of school effectiveness. A multistrand concurrent mixed model design was utilized to test the research hypotheses and answer the research questions. Both probability and purposive sampling strategies were employed in this study.

The MANOVA analyses from the teacher, student, and parent questionnaires revealed a consistent result: there were significant differences between more effective and less effective schools across all the traditional school effectiveness variables. The MANOVA results for classroom teaching also demonstrated significant differences between more effective and less effective schools across nine traditional teacher effectiveness variables.

This study revealed many differences in the processes of effective schooling in China as opposed to those described in the international literature. These differences included the importance of the role of the Banzhuren (the director of a class), the overriding importance of students' test scores in teacher evaluation, the impact of large class sizes, and the impact of inadequate facilities and resources especially in the rural areas. Results regarding effective schooling in urban areas in China (as opposed to rural areas) are that the major differences center on faculty participation in decision making, expectations for students (especially future expectations), opportunities for teachers' professional development, and so forth.

This study also revealed many differences in the processes of effective teaching in China as opposed to those described in the international literature. For example, Chinese teaching behaviors are very uniform (relatively small variance across classrooms), Chinese

classes emphasize whole class activities more than small group activities, teachers are very

strict with students in both discipline and studies, and demonstration lessons are very popular

both within and across schools.

CHAPTER ONE: INTRODUCTION

The first time I heard about school effectiveness research (SER) was in 2001, when my former major professor Dr. Yuan (the Northeast Normal University, the People's Republic of China, hereafter called China) brought me a book from the USA entitled *Schools make a difference: Lessons learned from a 10-year study of school effects* (Teddlie & Stringfield, 1993). The book immediately attracted me, not only because of its content, which is extremely relevant to my research interests (school evaluation and teacher evaluation), but also because of the methodology it employed. Although I did not know the term "mixed methods" at that time, I was impressed by the quantitative and qualitative methods utilized in the study.

First, quite a lot of statistical techniques (e.g., multiple regression) were utilized in the study. I had taught statistics for nearly 10 years by 2001, but I seldom utilized statistical techniques in my own research, due to the existing Chinese research orientations. Furthermore, the study utilized some advanced statistical techniques such as hierarchical linear modeling (Kennedy, Stringfield, & Teddlie, 1993), which I had been introduced to during a workshop, but had not mastered. Finally, the study utilized case studies, a newly emerging research method in China. I also learned about case study research when I pursued my Master's Degree in China, but I never employed it before I came to the USA.

Later I learned that SER is almost non-existent in China in spite of its 40-year history in the USA, the UK, and other countries. Thus, I left my teaching career in China and came to the USA to pursue my Ph. D. to develop knowledge and skills regarding how to conduct SER.

Over the past 40 years, SER has been focused mainly on three areas: school effects research, effective schools research, and school improvement research. Mixed methods have been employed extensively in SER. My research study also utilizes mixed methods. Both qualitative and quantitative data have been collected and analyzed to answer my research questions and test my research hypotheses.

Purpose of the Study

In spite of the 40-year history of SER and its international presence,[1] most of the existing research has been the product of only five countries (the USA, the UK, the Netherlands, Australia, and Canada) (Teddlie, 2004). Few studies on school effectiveness have been conducted in China (Sun, 2003), one of the major developing countries internationally, although several studies have been conducted in Hong Kong and Taiwan. Thus, we know little about the characteristics of school effectiveness in China. As a result, SER studies must be conducted in China for the field to develop properly both there and internationally.

Meanwhile, findings from the limited studies conducted in developing countries do indicate some differences from those conducted in industrialized countries[2] (e.g., in terms of effective school characteristics as described in Chapter Two). Furthermore, in spite of the similarities they share, China may be different from Hong Kong and Taiwan with respect to

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[1] More than 70 countries have sent delegates and researchers to the annual meeting of the International Congress for School Effectiveness and School Improvement (http://www.icsei.net).

[2] According to the annual *Human Development Report* produced by the United National Development Programme (UNDP) (1995), the world is divided into 'developing countries' and 'industrialized countries,' and the former includes Africa, Latin America, the Arab states of the Middle East, and Asia (minus Australia, New Zealand and Japan). I would like to utilize this category in this study to justify why it is so important to conduct SER in China, a developing country.

school and teacher effectiveness, due to different political and economic backgrounds as well as different historical trajectories.[3]

The study of Y. C. Cheng (2001) is a case in point. This study compared peer classroom observation practices in schools in Hong Kong and Guangzhou, one of the most developed cities in China. The purpose of this study was to identify factors that affect the impact of peer observation on teachers' professional development. The results from the study indicated a big difference between (1) Guangzhou teachers who perceived peer observation to be a useful means for improving themselves and (2) Hong Kong teachers who were unhappy about imposing peer observation on teachers, although no one openly resisted the practice.

Likewise, in spite of the similarities between China and Taiwan,[4] between-school differences at the primary and secondary levels are much greater in China than in Taiwan (Broaded, 1998). One fundamental distinction in China is between the key schools,[5] which are selective in their admission criteria and have advantages in financing, facilities, and teacher qualifications, and the regular schools. The differences between key and regular schools create much greater variance in educational attainment or achievement in China than in Taiwan.

One of the major purposes of this study is to identify the processes of effective schools in China, thus enriching the international study of school effectiveness. It is expected

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[3] Hong Kong was reunited with China in 1997, but the educational and political systems were different for about 50 years.

[4] For example, they share a common cultural legacy, and both of their education systems can be characterized as examination driven.

[5] See Chapter 3 for details.

that the addition of a Chinese sample to the SER database will do much to internationalize the field.

<p style="text-align:center">Importance of the Study</p>

Teddlie (2004) argued that there are several areas of the world that are under-represented in SER (e.g., China), and that their continued absence from the international SESI database produces skewed results overall. It is expected that the results of this study will yield information on important SER issues that are quite different from those reported in the mainstream literature over the past 40 years, as well as introduce new issues to the field.

There are elements in the current Chinese educational environment that make this a good time to develop SER there. First, Chinese scholars have started to pay attention to the SER literature. For example, several articles on SER conducted in Western countries have been translated into Chinese over the past few years (e.g., Zhan, 2001; Zhang, 1997; Zhang & Meng, 1996). Second, a few Chinese scholars have conducted studies on SER, either in China (e.g., Tang, 2005) or in other countries (e.g., Sun, 2003; Sun, H., & Sun, M., 2005). Third, the *First International Conference on School Effectiveness and School Improvement in China* was held at Shenyang, China, in September 2005. This conference should enhance researchers' interest in conducting SER in China. Finally, although there have been few systematic empirical studies of SER in China, there are quite a few studies on Chinese education, such as studies on attributions of students' high achievement, the student learning process, education quality in China, some reflections on China's school effectiveness and so forth (e.g., Cheng, 1995; Cheng & Wong, 1996; Cheng, 1993, 2000, 2001; Lo, 1999; Niu &

Sternberg, 2003; Stevenson & Lee, 1996; Stevenson & Stigler, 1992; Tang & Wu, 2000; Watkins & Biggs, 1996; Zhou, 2004). These will provide valuable background information for conducting SER in China.

Research Questions and Hypotheses

The research objective for this study is to explore the processes of effective schools and effective teaching in China. Similarities are expected between these processes in China and those reported in literature on SER, from which I derive the following research hypotheses:

Research Hypothesis #1: The processes of effective schools in China are similar to those described in the international school effectiveness literature (e.g., Reynolds & Teddlie, 2000). These processes include effective leadership, effective teaching, a pervasive focus on learning, a positive school culture, high expectations for students and staffs, staff development, and so forth.

Research Hypothesis #2: The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature (e.g., Campbell, Kyriakides, Muijs, & Robinson, 2004). These processes include maximizing classtime, exhibiting best teaching practices, adapting practice to particulars of classroom, and so forth.

Due in part to its Confucian heritage, Chinese culture differs from Western cultures (e.g., most Western societies are individualist whereas most Asian societies are collectivist China. See Chapter 2 for details). These cultural differences might result in different schooling processes (Dimmock and Walker, 2000b). Thus, in addition to similarities, I am also interested in the possible differences between the processes of effective schools and

effective teaching in China and those reported in literature on SER, which are based on the USA and the UK primarily. The following research questions will guide this study:

Research Question #1: What are the differences in the processes of effective schooling in China as opposed to those described in the international literature?

Research Question #2: What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?

Research Question #3: What are the differences in the processes of effective teaching in China as opposed to those described in the international literature?

These hypotheses and questions are based on findings from studies on SER in developing countries, as well as studies on Chinese student learning. As Teddlie pointed out (2004), the four school effectiveness characteristics found in South Africa by Taylor, Muller, and Vinjevold (2003) have a lot in common with the set of five correlates of effective schooling proposed by Edmonds (1979) 25 years ago based on research conducted in the USA. Thus, Teddlie concluded that some characteristics will travel across most countries, while others will be more important to certain subsets of countries.

According to Zhou, et al. (2004), variables such as socioeconomic status (SES) and quality of teaching impact the performance of students in many cultures. The primary finding from this study is that factors associated with differences in performance in China tended to be some of the same variables related to differences among students in the United States: quality of education (i.e., quality teachers, library resources, school environment, and so forth), mother's level of education, and home environment (e.g., number of books at home).

Based on these results and those from other similar studies, I have included the same hypotheses in this study as those in published international SER literature.

One of the research questions for this study is to explore the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China, since there are large differences between urban and rural schools. Lo (1999a) concluded that in Shanghai there are differences in students' test scores between schools in urban areas and in rural areas, and between key schools and ordinary schools. As cited in Lo's study, a large scale research project (Xie & Tan, 1997) compared the average test scores in four major subjects in the primary schools [i.e., language, mathematics, morals (including artistic ability) and scientific knowledge (including labor education)] between students in urban and rural areas and between students in key schools and ordinary schools. The result yielded a difference of 1.84 percentage points between the urban and rural areas, and an 11.21 percentage point difference between the key schools and ordinary schools.

According to Tang and Wu (2000), one large-scale survey was carried out by the Basic Education Department of the Ministry of Education from April 1993 to April 1994. This survey was designed to assess the achievement of China's primary school pupils and provide a basis for developing a monitoring system related to the quality of basic education. Some of the findings from this survey included the following: (1) the academic achievement of pupils in urban areas was higher than that of pupils in townships, whose achievement was in turn higher than that of pupils in rural areas; and (2) the quality and workload of teachers, and parents' educational attainment, were important factors which made a difference in student achievement (State Mission of Education, 1997).

Key Definitions

School Effectiveness

There are various definitions of effectiveness from different perspectives. For example, an economic definition of effectiveness is described as "the extent to which the desired level of output is achieved" (Scheerens, Glas, & Thomas, 2003, p. 223). K. M. Cheng (1993) presented a technical definition of effectiveness as "school outputs limited to those in schools or just after schooling (e.g., learning behavior, skills obtained, attitude change, etc.)." Van Kesteren (1996) defines organizational effectiveness, as translated and cited by Scheerens, et al. (2003), as "the degree to which an organization . . . manages to control internal organizational and environmental conditions, in order to provide . . . the outputs expected by external constituencies" (p. 94).

In my study, I will use Mortimore's (1991) student-achievement centered definition of school effectiveness. An effective school is "one in which pupils progress further than might be expected from consideration of its intake" (p. 9). Although students' academic achievement is not the only important goal of education, "there are strong arguments for emphasizing academic goals, due to the 'high stakes' nature of UK public examinations as determinants of young people's future educational and employment life chances" (Sammons, 1999, p. 233). The same situation exists in China where the high-stakes examinations (e.g., the college entrance examination) make the whole education system examination-driven.

Teacher Effectiveness

Campbell, et al. (2004) differentiate between school effectiveness and teacher effectiveness: school effectiveness refers to the impact that school-level factors, such as

leadership, school climate, and school policies, have on students' performance, whereas

teacher effectiveness refers to the impact that classroom factors, such as teaching methods,

teacher expectations, classroom organizations, and the use of classroom resources, have on

students' performance. They further define teacher effectiveness as "the power to realise

socially valued objectives agreed for teachers' work, especially, but not exclusively, the work

concerned with enabling students to learn" (p. 4).

According to Cheng and Tsui (1999), the conception of teacher effectiveness may be

different for different people. If educators believe that teacher performance is a necessary

component for school effectiveness, they might discuss it in light of the school effectiveness

literature. They further propose seven models to analyze and understand the multifaceted

conception of teacher effectiveness.[6] The first model, which is adopted in this study, is the

goal and task model of teacher effectiveness. This model is often used to assess teacher

performance and effectiveness in the school, and it assumes that a teacher is effective if he or

she can accomplish the planned goals and assigned tasks in compliance with school goals.

School Climate

Since the 1970s, SER has paid special attention to school processes, and school

climate has been regarded as the most obvious way to gain insight into these school processes

(Houtte, 2005). A classic work in this area is that of Rutter and colleagues (1979). The main

conclusion from this research was that the climate of the school is the major factor in

explaining school differences in terms of achievement. Keefe and Howard (1997) define

school climate as "the relatively enduring pattern of shared perceptions – by teachers,

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[6] See Chapter 2 for details.

students, parents, and community members – of the characteristics of a school and of its members" (p. 24). Teddlie and Reynolds (2000) conclude that a distinguishing characteristic of the school climate construct is that "it has been tied to specific measurement instruments since its initial formulation" (p. 310).

From the end of the 1980s and the beginning of the 1990s, school culture has become a popular concept in educational research and has challenged climate as a means to describe the character of the school (Houtte, 2005). Many scholars have made comparisons between them (e.g., Hoy & Miskel, 2001; Martin, et al., 2004; Hofstede, 2001; Teddlie & Reynolds, 2000). As for my study, I am concerned about the shared perceptions of the whole school environment by teachers, students, and parents, and I have used climate questionnaires to measure the perceptions. Therefore, I adopt Hoy and Miskel's (2001) definition: "School climate is the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools" (p. 189).

Context

Reynolds and Teddlie (2000) define context in SER as follows:

The study of context in SER refers to the differential effects associated with certain variables (specifically SES of student body, community type, grade phase of schooling, and governance structure) upon the scientific properties of school effects, the characteristics of effective schools, and the school improvement process. (p. 163)

In the definition above, the SES of student body refers to primarily low SES versus primarily middle SES student body, the community type refers to rural versus suburban versus urban community type, the grade phase of schooling refers to elementary versus secondary phases of schooling, and the governance structure refers to public versus private

schools. A recent trend in the literature is to also include country as a context variable in SER. This study involves two context variables. One is the country variable (China, which has not been studied very much in SER), and the other is the community type (rural versus urban).

CHAPTER TWO: LITERATURE REVIEW

This chapter first presents two distinct frameworks for school effectiveness to provide readers with a basic understanding of how school effectiveness has been defined in the SER history. Then a review is presented regarding SER studies in industrialized countries, followed by SER studies in developing countries and in East Asian societies, respectively. Since hundreds of SER studies have been conducted in industrialized countries over the past 40 years, I will divide the review of these studies into four parts: (1) the developmental history of SER, primarily on effective schools research, (2) teacher effectiveness research (TER), (3) the simultaneous study of SER and TER, and (4) methodological issues in SER. The review of SER studies in developing countries focuses on the conclusions that have been drawn from studies conducted in developing countries as opposed to those in industrialized countries. Since a few studies have been conducted in East Asian societies, an "analogous search in other fields or topics" (Boote & Beile, 2005) will be conducted.

SER can be categorized into three major strands: (1) school effects research, focusing on the scientific properties of school effects (e.g., magnitude, consistency, and stability), (2) effective schools research, concerning the processes of effective schooling, and (3) school improvement research, examining the processes whereby schools can be changed (Teddlie & Reynolds, 2000). The following reviews primarily focus on the second strand.

A Review of the Literature on School Effectiveness Research in the Industrialized Countries

This section starts with the developmental history of SER, followed by the developmental history of TER. Then a review of the simultaneous study of SER and TER is done. The section ends with the methodological issues in SER.

Developmental History of School Effectiveness Research

Since the Coleman Report, SER has experienced three generations of growth (Reynolds, et al., 2002), and has emerged from virtual total obscurity to a now central position in the educational discourse (Teddlie & Reynolds, 2000). According to Reynolds et al., the first generation of school effectiveness research started after the Coleman Report was released in 1966, which was considered as the major impetus for development of SER because in this report Coleman et al. (1966) concluded that schools had little or no effect on student achievement when the effects of family background variables had been taken into account. The major studies during this period of time included those by Edmonds (1979), Brookover et al. (1979), and Rutter et al. (1979). Edmonds (1979) studied schools serving poor, mostly minority, inner-city children in Detroit, Michigan. His research confirmed that instructionally effective schools for poor children did exist. Also, based on his own research, the re-analysis of the data from the 1966 Equal Educational Opportunity Survey, and a literature review, he identified processes of effective schools as (1) strong educational leadership, (2) a climate of academic expectations, (3) an orderly, quiet, and conductive atmosphere, (4) an emphasis on acquisition of basic skills, and (5) frequent monitoring of pupil' progress. These characteristics primarily contributed to the classic American "five-factor model."

Brookover et al. (1979) not only administered questionnaires to a large sample of principals, teachers, and students in grades four and five in Michigan, but also conducted case studies in four low-SES urban schools. Their study produced an often-cited list of processes of successful schools: most time was spent on instruction; there were little differentiation

among students in their instructional programs, few write-offs, and high academic expectations of students; students perceived the high expectations for them, felt that they had control over their academic work, and believed that teachers cared about their academic performance; students were rewarded and encouraged; and principals were involved in instruction.

In the *Fifteen Thousand Hours* study, Rutter et al. (1979) spent more than 4 years studying 12 urban secondary schools in London, where they observed classes, coding and recoding the activities of the teacher and the students. They paid attention to whether the teacher was attending to the subject matter, to students' behaviors, to social activities, or to administrative matters. They recorded the teacher's interaction with individuals or with the whole class, the rates of on-task academic engagement, and the instance of off-task behavior. Their study confirmed that effective schools did exist, as reflected in higher achievement levels and fewer behavior problems. They also identified the processes of effective schools as: a school-wide academic emphasis and high expectations for academic success; staff consensus on the goals and values of the school; a higher proportion of the school week devoted to academic tasks; the establishment of principles and guidelines for student behavior; classroom management; frequent rewards and praise; assigning responsibilities and duties to students; a clean, comfortable, and pleasant working environment; and showing concern for individual students' welfare. The results of the early school effectiveness studies indicated that a number of factors appeared to be related to effectiveness, and these results converged more or less around the "five-factor model of school effectiveness,"

A second generation of school effectiveness studies was carried out starting in the mid-1980s (Reynolds et al., 2002). Some "classic studies" (Reynolds & Teddlie, 2000) emerged at this stage, such as the Mortimore's study in London (Mortimore et al, 1988) and the Louisiana School Effectiveness Study (LSES) (Teddlie & Stringfield, 1993). The Mortimore study involved 2000 children in fifty randomly selected London primary schools over a period of four years. This study contributed to SER in three aspects: (1) Mortimore et al. identified effective school processes, including purposeful leadership, the involvement of the deputy head, the involvement of teachers, consistencies among teachers, structured sessions, intellectually challenging teaching, a work-centered environment, a limited focus within sessions, maximum communication between teachers and students, good record-keeping, parental involvement, and a positive climate; (2) their study referred to both academic and social areas; and (3) it was the first school effectiveness study in the United Kingdom focusing on classroom process.

Although the result of research in this stage was still a long list of processes of school effectiveness, Reynolds et al. (2002) concluded that progress in research methodology occurred during this period of time. Examples were as follows: many research projects made use of more sophisticated techniques for data analysis (e.g., hierarchical linear modeling, HLM); data collection and analysis involved both the school and the classroom level; and classroom observation was utilized as a technique for data collection.

Besides progress in research methodology, contextually sensitive studies of school effectiveness occurred. For example, the LSES (Teddlie & Stringfield, 1993) focused on the

SES of student bodies and identified different school effectiveness processes for effective

middle- and low-SES schools in the following six areas:

- Promotion of educational expectations. Effective middle-SES schools promoted both high present and future educational expectations, while effective low-SES schools promoted high present educational expectations;

- Principal leadership style. Principals in effective middle-SES schools had good managerial abilities and they emphasized teacher's self-management of teaching. In effective low-SES schools, principals monitored classrooms and provided overall instructional leadership;

- The use of external reward structures. Effective middle-SES schools downplayed visible external rewards for academic achievement, while effective low-SES schools emphasized rewarding high-achieving students;

- Emphasis in the school curriculum. Effective middle-SES schools expanded curricular offerings beyond basic skills, while effective low-SES schools primarily focused on basic skills;

- Parental involvement. Parental involvement was encouraged in effective middle-SES schools, while principals and staff in many low-SES schools created boundaries to buffer the school from negative influences; and

- Experience level of teachers. Principals in effective middle-SES schools hired more experienced teachers, while effective low-SES schools had less experienced teachers. (Teddlie, Stringfield, & Reynolds, 2000, pp. 168-169)

Two reviews from the 1990s provided a comprehensive description of the key factors of effectiveness in industrialized countries, with each of the reviews referring to several hundreds of studies of effective schools processes. The first review was that of Sammons, Hillman and Mortimore (1995) conducted on behalf of the British schools inspectorate Office for Standards in Education and Institute of Education, and the second review was that of Levine and Lezotte (1990) conducted on behalf of the National Center for Effective Schools. The processes of effective schools summarized by Sammons, et al. (1995) included professional leadership, shared vision and goals, a learning environment, concentration on teaching and learning, purposeful teaching, high expectations, positive reinforcement, home-school partnership, and a learning organization. The processes of effective schools summarized by Levine and Lezotte (1990) included outstanding leadership, effective instructional arrangements and implementation, focus on student acquisition of central learning skills, productive school climate and culture, high operationalized expectations and requirements for students, appropriate monitoring of student progress, practice oriented staff development at the school site, and salient parental involvement.

Teddlie and Reynolds (2000) distilled these two reviews of effective schools processes (Levine and Lezotte, 1990; Sammons et al., 1995) into nine areas: (1) effective leadership, (2) effective teaching, (3) focusing on learning, (4) a positive school culture, (5) high expectations for all, (6) student rights and responsibilities, (7) monitoring progress at all levels, (8) staff development, and (9) parental involvement.

By the early to mid-1990s, a third stage of school effectiveness studies began in which contextually sensitive studies of school effectiveness processes became more

prominent. The studies during this period of time addressed five types of context variables: SES of student body, community type, grade phase of schooling, school governance structure, and country (Teddlie et al., 2000). There have been relatively few studies that have explicitly examined community type as a context variable in SER; however, the limited studies did find significant community influences on the effectiveness of schools (Reynolds & Teddlie, 2000).

Teddlie (1994b) presented four areas of contextual differences (community and district office, leadership, faculty and instructional organization, curriculum and professional development) in elementary schools due to urbanicity (or community type). For example, regarding leadership, discipline was typically a problem requiring principal intervention and monitoring in urban elementary schools, but generally good in rural elementary schools, and it varied depending on community, faculty, and principal characteristics in suburban elementary schools. In terms of curriculum and professional development, rural elementary schools usually placed importance on basic skills, suburban elementary schools typically focused on broader curriculum beyond basic skills, and some urban elementary schools emphasized basic skills while others a broader curriculum (see Teddlie, 1994b, Teddlie & Stringfield, 1993, for details).

Studies showed that the impact of community type on school effectiveness varied across countries. For example, community type did not play as significant a role in the UK as it did in the USA. Teddlie and Reynolds (2000) attributed this to less variance on this variable in the UK. Thus, they argued that the interaction between the two context variables, community type and country, was an important consideration.

A recent trend of SER is to move toward the internationalization of the field. Evidence for this new trend comes from a variety of sources, and Teddlie and Reynolds (2005, p. 5) summarized them as follows:

- Numerous authors have described aspects of the increasing internalization or globalization of SER (e.g., Mortimore, 2001; Reynolds, 2000).

- The continued success of the International Congress for School Effectiveness and Improvement (ICSEI) and its annual meeting, which started in 1988.

- Since calendar year 2000, the journal *School Effectiveness and School Improvement* has contained articles about SER from a wide variety of settings.

- At least two international educational effectiveness[7] studies have been conducted (or are in process at this time) involving multiple countries: (1) the International School Effects Research Project (ISERP), a longitudinal nine country study (the five traditional SER countries plus Hong Kong before reunification, Ireland, Norway, and Taiwan) conducted in the late 1990s (Reynolds, et al., 2002) and (2) the International System for Teacher Observation and Feedback (ISTOF), an ongoing study aimed at developing an internationally valid teacher effectiveness instrument.

Teddlie (2004) further pointed out the importance of the continued internationalization and diversification of SER. First, the internationalization and diversification of SER can help change ethnocentric research traditions (i.e., over the past 40

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[7] Educational effectiveness is an inclusive term encompassing both the study of school effectiveness and teacher effectiveness (e.g., Scheerens & Bosker, 1997).

years, most studies have been conducted primarily in industrialized countries, especially in the United States, the United Kingdom, Australia and the Netherlands), so that more voices can be heard from the under-represented areas of the world. Second, studies conducted in new countries will probably generate results that are quite different from those reported in the extant SER literature, thus reinvigorating the field.

Developmental History of Teacher Effectiveness Research

Greater interest in teacher effectiveness emerged during the early to mid-1990s, due to the acknowledgement that classroom influence was much greater than that of the school (Reynolds et al., 2002). Cheng and Tsui (1996) concluded that the traditional studies of teacher effectiveness focused largely on the teaching performance of individual teachers in classrooms, and that this narrow concept of teacher effectiveness could no longer meet the needs of the changing school environment. As a result, they (1999) proposed seven models to analyze and understand the multifaceted conception of teacher effectiveness, based on the ideas of school effectiveness and education quality from Cameron (1984), Y. C. Cheng, (1990, 1996), and Cheng and Tam (1997). These seven models are:

- The goal and task model. The goal and task model is used often to assess teacher performance and effectiveness in the school. The model assumes that a teacher is effective if he or she can accomplish the planned goals and assigned tasks in compliance with school goals.

- The resource utilization model. Facing the pressure of diverse expectations from multiple school constituencies and challenges from the changing education environment, teachers must often accomplish tasks with diverse goals and

objectives within a tight time frame. Resources and support become critical

factors in accomplishing the assigned tasks and meeting diverse goals and

expectations. Therefore, teachers are deemed effective if they can maximize the

use of allocated resources in their work processes and procure the needed support

to overcome difficulties and accomplish tasks even with diverse and competing

goals.

- The working process model. The working process model assumes that effective

teaching and working processes enable teachers to perform their teaching and

assigned tasks effectively, resulting in valuable and fruitful student learning

outcomes or school achievements. Therefore, teachers are seen as effective if they

can ensure the quality of teaching and working processes.

- The school constituencies' satisfaction model. The satisfaction model assumes

that school constituencies' expectations and needs determine the nature of tasks

and goals and shape the characteristics of the work process for teachers to

perform their jobs. Therefore, satisfying those expectations and needs is the key

for effectiveness. Teachers are effective if the major school constituencies are at

least minimally satisfied with their performance.

- The accountability model. The accountability model focuses on teachers'

accountability and reputation in assessing teacher performance. This means that

teachers are required to demonstrate competence and responsibility in discharging

teaching and school activities and making related professional decisions. The

current emphasis on accountability and quality assurance in education reforms in

both Western and Eastern societies seem to support the importance of the accountability model to understand, assess, and monitor teacher effectiveness.

- The absence of problems model. The absence of problems model assumes that teachers are basically effective if there is an absence of problems, troubles, defects, weaknesses, and misbehaviors when they are discharging their duties. Hence, if a teacher can meet the minimal requirements and display no apparent problems and ineffectiveness in daily work and teaching, one can assume that he or she is working smoothly and performing effectively.

- The continuous learning model. The continuous learning model assumes that environmental changes are inevitable and, therefore, a teacher is effective if he or she can adapt to and improve his or her environment. This model envisions teacher effectiveness as a dynamic concept involving continuous improvement and development. It is similar to the current emphasis on continuous staff development as a major measure for school effectiveness. (Cheng and Tsui, 1999, pp. 142-144)

Regarding the development of TER, diverse perspectives exist on how many phases it has gone through. For example, Kyriakides, Campbell, and Christofidou (2002) identified three overlapping phases: presage-product studies, process-product studies, and beyond classroom behavior studies. Campbell, Kyriakides, Muijs, and Robinson (2003, 2004) classified the studies on TER into four overlapping phases: presage-product studies, teaching style studies, process-product studies, and teacher knowledge and beliefs studies. Although

these authors did not define the exact period of time for each phase, we can make some inferences from the references they cited.

The Presage-Product Studies before the 1950s.   These early studies concerned the psychological characteristics of an effective teacher such as personality characteristics, attitude, experience, and aptitude/achievement. Although these studies produced some consensus on characteristics considered desirable in teachers, there was no evidence of the relations between these psychological characteristics and student performance (e.g., Borich, 1992; Rosenshine & Furst, 1973).

The Process-Product Model from the 1950s to the Late 1980s.   Some of the studies during this period of time focused on experimental research attempting to explore the impact of teaching methods upon student achievement, but no conclusive results were obtained from them. The 1950s and 1960s also saw numerous studies on classroom climate and teaching competencies, which led to an emphasis on measurement of teacher behaviors through systematic observation and by 1970 to a proliferation of classroom observation systems. For teaching behaviors, Brophy and Good (1986) regarded the following factors as effective teaching processes: (1) academic learning time, (2) opportunity to learn, (3) expecting pupils to learn and emphasizing academic learning, (4) structuring of the content, using advance organizers, hierarchical ordering of objectives and content, and clarity of presentation, (5) the questioning behavior of teachers (e.g., the use of higher-order questions, the clarity of the questions and the wait time), (6) teachers' reaction to the responses (e.g., correcting answers and providing immediate feedback), and (7) seatwork assignments, clearly defined and with corrective feedback.

From the early 1970s through the mid-1980s, the TER area was very active. A substantial number of studies emerged concerning the processes of effective teaching. These processes included both the quantity of academic activities and the quality of organized lessons. According to Rosenshine and Stevens (1986), effective teaching strategies include: giving structure to the learning experience; proceeding in small steps but at a rapid pace; giving detailed and more redundant instructions and explanations; having a high frequency of questions and offering active practice; providing feedback and corrections, particularly in initial stages of learning new materials; trying for a success rate of 80 per cent or higher in initial learning; dividing seatwork assignments into smaller segments or devising ways to provide frequent monitoring; and providing for continuing student practice so that they have a success rate of 90-100 per cent, and they become more confident and secure.

A recent review of effective teaching by Reynolds and Teddlie (2000) concluded that effective teaching processes included: (1) management of time; (2) classroom organization, such as preparing lessons in advance, clarity both in explaining the purpose of the lesson and in the actual curricular and content, and the structure of the lesson; (3) the use of effective teaching practices, such as questioning strategies, maintaining a task orientation in the classroom, and a warm and accepting classroom climate; and (4) adaptation of practice to the particular characteristics of the learners (pp. 146-147).

Since the late 1970s, there has been a lot of research on the connection between school climate and student learning (e.g., Edmonds, 1979; Fashola & Slavin, 1998; Teddlie & Stringfield, 1993). As Garrison (2004) pointed out, researchers have attempted to identify and

measure a range of variables associated with environmental and organizational factors that were believed to impact student achievement.

A variety of forms have been used to measure school and classroom climate. For example, checklists have been used to observe the operation of schools and classrooms, while questionnaires, surveys, and inventories have been employed to obtain students', teachers', and parents' perceptions of the school and classroom climate (e.g., Fraser, 1994; Houtveen, Vermeulen, & Van de Grift, 1993).

TER since the Early 1990s: Beyond Classroom Behaviors Studies.   A recent trend on TER is the shift from teacher behaviors to teacher subject knowledge and knowledge of pedagogy, and their beliefs and self-efficacy (Askew et al., 1997; Campbell et al, 2004; Kyriakides, Campbell, and Christofidou, 2003), since ". . . these deeper structures are more important to teaching quality than immediately observable behaviours" (Campbell et al, p. 49).

- Subject knowledge. There are mixed findings on how teacher subject knowledge influences teacher effectiveness and student achievement. Some studies (e.g., Aubrey, 1993; Fennema & Loef-Franke, 1992) suggested that teacher subject knowledge was related to teacher behaviors in the classroom and student achievement, and that lack of deep subject knowledge impeded effective teaching. Other studies (e.g., Borich, 1992; Darling-Hammond, 2000) did not indicate a strong correlation between teacher's previous achievement, and classroom practice and student achievement. Monk's (1994) study found a positive but curvilinear relationship between teacher subject knowledge and

student achievement. This was regarded by some scholars (e.g., Campbell et al, 2004) as a possible explanation for the mixed findings of the effect of teacher subject knowledge on teacher effectiveness and student achievement: A minimal level of knowledge is necessary for teachers to be effective, but beyond a certain point a negative result might occur.

- Knowledge of pedagogy. In addition to teacher subject knowledge, a teacher's pedagogical knowledge is also important for effective teaching. It is even more important than subject knowledge in itself as shown by some studies (e.g., Askew et al, 1997; Medwell et al, 1998).

- Teacher beliefs. A currently heated topic is the effect of teacher beliefs on their teaching practices. Askew et al. (1997) conducted a qualitatively oriented study. They used teacher interviews to look at how teachers' beliefs, knowledge and attitudes influence teacher effectiveness. They identified three types of teachers: discovery-oriented teachers (who emphasize students' creation of their own problem-solving methods), transmission-oriented teachers (who believe in the importance of introducing students to standard procedures and routines through direct instruction with little interaction), and connectionist teachers (who stand between discovery-oriented and transmission-oriented teachers, and hold a belief that teaching is an interactive dialogue between teachers and students). Askew et al. found that connectionist teachers are more effective than the other two groups of teachers. Interestingly, teacher beliefs have been regarded by some scholars (e.g., Philippou & Christou, 1999) as an explanation for the high

academic achievement of East Asian students. Nevertheless, ". . . the area of beliefs is [under- conceptualized] and needs new methodological and explanatory frames" (Campbell et al, 2004, p. 53).

- Teacher self-efficacy. Kyriakides et al (2002) summarized the influences of teacher self-efficacy on teaching and learning into three aspects (p. 299): First, a teacher's self-efficacy beliefs were positively related to his/her students' test scores (Schunk, 1991). Second, low teacher self-efficacy was linked to low expectations of students, an important predictor of student achievement. Finally, studies (e.g., Philippou & Christou, 1999) showed that teacher self-efficacy was related to student self-efficacy and student motivation.

The Simultaneous Study of School Effectiveness Research and Teacher Effectiveness Research

The brief reviews of SER and TER above provide a general picture of the developmental history of the two fields. In spite of the internal links between them, however, SER and TER have historically been separate for a long time, with most teacher effectiveness studies having been concerned only with classroom processes and most school effectiveness studies having involved only school-level phenomena (Teddlie, 1994a).

Teddlie and Reynolds (2000) attributed the separate development of the two fields to the following reasons:

- The researchers in the two fields came from different academic and intellectual backgrounds, with those in SER more likely coming from educational administration and sociology of education, while those in TER were more likely to have come from educational psychology.

- Researchers from SER were interested in molar behavior that consistently varied across schools, while researchers from TER were interested in molecular behavior that varied across classrooms.

- There were differences in the designs used by the two groups, with researches in TER conducting experimental and survey studies, while those in SER typically utilized survey and archival research.

- There were differences in the instruments used by the two groups, with researchers in TER more often using behavioral measures, while those in SER more often using attitudinal measures.

- The two groups of researchers had different agendas regarding educational improvement, with those in SER emphasizing school improvement and those in TER emphasizing teacher improvement (Teddlie and Reynolds, 2000, pp. 313-314).

Despite these differences between researchers in the two fields, combining the two areas in joint research studies is necessary, since true educational change must occur at both the school and class levels (Teddlie, 1994a). Thus, from the mid-1980s, researchers working within SER began multilevel studies of school effectiveness.

A number of studies on school effectiveness revealed that the classroom level was more influential on students' performance than the school level (e.g., Caldwell & Spinks, 1993; Creemers, 1994; Harris, 2001; Muijs & Reynolds, 2000; Scheerens, 1992). Scheerens (1992) held that research on classrooms was particularly important, since analyses demonstrate most of the variation on student achievement is due to classroom variation rather

than school variation. Creemers (1994) argued that students' academic outcomes were more heavily dependent on the procedures and activities carried out in the classroom, than those carried out at the school level. Caldwell and Spinks (1993) also argued that it was the quality of teacher-student interactions that primarily determined student academic progress, while organizational aspects of schools provided the necessary preconditions for effective teaching. When considering the contribution of SER, Harris (2001) concluded that one of the most powerful and enduring lessons from SER was that teachers were important determinants of children's educational and social achievements.

Several studies (e.g., Munro, 1999; Stringfield et al., 1985; Teddlie et al., 1989) explored how individual classrooms were influenced by and contributed to the overall effectiveness of the school. The Stringfield et al. study (1985) compared a pair of schools designated as effective and ineffective during the 1984-1985 school years, in the third phase of the Louisiana School effectiveness Study (LSES-Ⅲ). Observations in the classrooms confirmed that better teaching occurred at the effective school (Adams Elementary) than at the ineffective school (Fillmore Elementary), which could be explained by differences in schoolwide processes between the two schools. These differences included: a higher expectation level for student performance at Adams; a clearer focus on present academic expectations at Adams; an active program at Adams for firing teachers who were not up to the minimum standard; and the more active and direct monitoring (and in-servicing) of teachers by the Adams administration.

The Teddlie et al (1989) study utilized data from eight pairs of schools from the LSES-Ⅲ sample. Results indicated that teachers in effective schools consistently outscored

those from ineffective schools on all indices of effective teaching, such as keeping students on task, spending more time presenting new materials, and demonstrating higher expectations for student success. In addition, the standard deviations reported for teaching behaviors were consistently smaller in effective schools than those in ineffective schools, which the researchers believed could be explained by some formal or informal socialization process. In-depth analysis of field notes from classroom observations and interviews suggested that at least five major differences between the schools were directly related to the interaction between school and teacher effects: (1) shared versus non-shared academic leadership, (2) strong faculty cohesiveness versus lack of faculty cohesiveness, (3) cooperative versus top-down effects to enhance teaching, (4) fairly uniform versus large variances in teaching behaviors across classes, and (5) assistance freely given versus little given to new faculty members (pp. 231-233).

Munro (1999) held that teaching effectiveness was closely related to school effectiveness and at the same time school effectiveness improved with the improvement of teaching effectiveness. His study indicated that teacher knowledge about learning could impact teacher practice and thus lead to significant improvement in teacher practice and school effectiveness.

These studies indicate that there are mean and variance differences in the behaviors of teachers from effective and ineffective schools, which implies the necessity for joint studies of school and teacher effectiveness. However, there have been few studies involving the simultaneous study of the two levels, and that should be a continuing issue for the future agenda of SER (Teddlie & Reynolds, 2000).

Methodological Issues in School Effectiveness Research

Methodological progress has accompanied the development of SER. As noted

earlier, one of the major conclusions of the well-known Coleman Report (Coleman et al.,

1966) was that schools made only a small difference in students' achievement after

statistically controlling for family inputs. This result initially shocked the educational

community, but scholars later found that Coleman's findings underestimated school effects

due to a faulty statistical method (i.e., the hierarchical structure of the data was ignored).

Thus, the late 1970s saw great methodological progress in SER with the development of

multilevel models to analyze data (e.g., Goldstein, 1987; Lee & Bryk, 1989; Raudenbush &

Bryk, 1986).

A new methodological advancement in the studies of school effects involves the

application of the multilevel growth model within the structural equation modeling

framework. Compared with multilevel regression growth models, these new models can

accommodate various error structures in the measurement, the inclusion of latent variables,

and both direct and indirect effects between variables. Thus, these new models are especially

appropriate for understanding the effects that schools have on student learning (Palardy,

2003).

In addition to quantitative methods, case studies have long been featured as an

appropriate methodology for conducting effective schools research (Jansen, 1995). There

have been basically two types of case studies used in SER: one was comparative case studies,

and the other was simple case studies (Ralph & Fennessey, 1983). Some of these case studies

formed the basis for the production of checklists, while others simply generated detailed

descriptions of good schools (Jansen, 1995). For example, the Brookover et al. (1979) study

aimed to identify the social climate and structural characteristics of schools to investigate the

extent to which they explained the differences in academic outcomes. In this study, the

authors complemented their statistical analysis of 68 elementary schools with case studies of

four low-SES schools. Their results indicated that school climate factors could be powerful

predictors of student's achievement. The significance of the case study techniques of the

1980s is that they provided in-depth details regarding classroom and school life, which were

often lost in large scale quantitative investigations (Jansen, 1995).

Mixed methods have also been utilized in SER from the 1990s. The Louisiana

School Effectiveness Study (LSES) (Teddlie & Stringfield, 1993) provides a good example

of mixed model case studies using differentially effective schools. For instance, there were 26

data sources for the third and the fourth stages of the LSES, which included 12 quantitative

sources and 14 qualitative sources. This example demonstrates the appropriateness and

importance of application of mixed model case studies in effective schools research.

A Review of the Literature on School Effectiveness Research
in Developing Countries

Jansen (1995) concluded that findings from SER in industrialized countries were

applied to research from developing countries mainly through three conduits: (1)

international funding agencies, such as the World Bank and their research or consultancy

teams; (2) international research associations, such as the International Association for the

Evaluation of Educational Achievement (IEA); and (3) individual researchers, such as

graduate students from the West conducting doctoral research in developing countries (p.

190). Among these, the World Bank studies have by far been the most influential in the

educational policy systems of the developing countries. The following reviews are based on

Jansen's division of SER into three generations in developing countries.

The First Generation

The first generation of SER in developing countries spanned from the early to the

late 1970s. An earlier review conducted by Simmons and Alexander (1978) were based on

nine empirical studies in the Third World and aimed to identify the factors that promoted

student academic achievement. With the educational production function as the major tool of

analysis, the authors concluded that schools had little influence on students' achievement,

especially for lower graders. As they stated:

> . . . factors which have traditionally been regarded as essential for better
> education—higher quality teachers, more expensive facilities—do not seem to
> increase achievement at lower grade levels even in the poorest countries. Instead,
> the greatest gains occur simply because the student is removed from his home
> environment into a school environment. (p. 355)

Schiefelbein and Simmons' (1981) review involved 26 SER studies using

multivariate analysis in developing countries. Five of these studies were conducted in Africa,

six in Asia, and fifteen in Latin America. Jansen (1995) summarized the characteristics of

these studies as follows: (1) these studies adopted the methodologies of the Coleman study

using national survey data, employed multivariate statistical techniques, and adopted the

concept of the educational production function, (2) these studies generated consistent results

with the studies conducted in the USA (i.e., student backgrounds greatly affected their

achievement), and (3) these studies were all designed and funded in the USA (with a minor

contribution from the UK), and transferred to developing countries (mainly in Latin America)

by individual researchers and research institutions from the industrialized countries.

The Second Generation

The second generation of SER in developing countries occurred in the 1980s. In contrast to the studies conducted in the 1970s, which showed little influence of schools in the developing countries on student achievement, studies during this period of time suggested a greater influence of schools on student achievement in developing countries compared to industrialized countries, after accounting for the effect of pupil background. The most important finding to emerge from the research during this period of time was that school factors (e.g., textbooks and other material inputs, teaching quality) were important in explaining student achievement. Heyneman & Loxley (1983) found a smaller portion of the variance in achievement attributable to family background but a larger portion of the variance in achievement attributable to school quality, in developing countries compared to industrialized countries. As such, they concluded that "the poorer the country, the greater the impact of school and teacher quality on achievement" (p. 1180).

The study of Mwamwenda & Mwamwenda (1987) employed a stratified random sample to select 51 primary schools in Botswana to examine the relationship between academic achievement and variables such as the availability of classrooms, furniture and books. A questionnaire was administered to the head teachers in the schools, and the students sat for the standard 7 examinations at the end of 1984. Their findings indicated that availability of classrooms, desks, seats and books all produced a significantly better performance in Standard 7 examinations in Botswana. They argued that this research supported the previous conclusion (e.g., Heyneman & Jamison, 1980) that school facilities such as books, furniture and classrooms are integral to academic achievement. Thus, this

research "casts doubts on studies carried out in the West suggesting that school facilities have no impact on achievement" (Mwamwenda & Mwamwenda, 1987, p. 235).

Lockheed et al (1986) used longitudinal data from a sample of eighth grade mathematics classrooms in Thailand to explore the effects of textbooks and other factors on student achievement. This study confirmed that textbooks contributed to student learning in developing countries. More than that, it identified two important mechanisms "whereby this contribution may be made: by substituting for postsecondary teacher education, and by delivering a more comprehensive curriculum" (p. 390).

With respect to methodology, this period saw mixed methods emerging in the study of the effect of school facilities on students' academic achievement. For example, Vulliamy's (1987) study utilized a case-study approach as well as quantitative data to investigate factors affecting students' examination performance in the four high schools in one province in Papua New Guinea. It also addressed a broader issue of school effect. The findings from this study supported the argument that "school effects are more powerful in the Third World than in the First World." More importantly, both the classroom- and school- observations revealed reasons for these greater effects. As the author concluded:

> the argument in the First World literature that levels of resourcing and of physical facilities are unrelated to student achievement does not seem to be applicable in the Third World context. . . . The lack of the most basic facilities in many Third World schools . . . not only depresses staff and student morale but also acts as an impediment to effective teaching and learning. (Vulliamy, 1987, pp 219-220)

The Third Generation

By the end of the 1980s a third generation of effective schools research emerged, which criticized statistical deficiencies of single-level regression models. As Buchmann and Hannum (2001) pointed out, only a few studies have utilized multi-level models to examine

school effects in developing countries. Interestingly, the studies conducted during this period of time found greater effects of family background than of school factors on student achievement in contrast to previous research utilizing the production function approach. For example, Lockheed & Longford (1991) found that school-level differences contributed 32% while family and individual factors contributed 68% of the explained variance in student mathematics achievement in Thailand.

Baker and colleagues (1999) examined whether the relationship between national wealth and large school effects found by Heyneman and Loxley in the early 1980s continued in the 1990s with cross-national data from the Third International Math and Science Study (TIMSS). They replicated Heyneman and Loxley's OLS method of analysis but also utilized hierarchical linear modeling procedures to examine the explained variance in achievement attributable to school and family factors in a wide range of countries. Their finding was that family factors were more important predictors of educational achievement than school factors in most countries regardless of national levels of wealth. Thus, the authors concluded that SES had a powerful effect even in developing countries. This conclusion is not consistent with that of Heyneman & Loxley (1983). Baker and colleagues (1999, 2002) attributed the different finding to (1) continued educational expansion and greater standardization of school quality at minimal levels in developing countries, (2) the SES effect might have strengthened over the past 20 years, (3) both families and children were motivated to make great efforts to attain achievement when they got the limited access to schooling, especially to quality schooling, and (4) the possibility that those developing countries, which had large school effects on student achievement, were not sampled in the TIMSS.

Heyneman (2004) attributed the different findings described above to the sample differences. The Heyneman and Loxley (1983) study used a sample of 29 countries, which included nine countries from Latin America and only one country from the Europe and Central Asia regions. The Baker, Brian and Letendre (1999, 2002) study sampled 35 countries, which included one from Latin America and eight from Europe and Central Asia. Heyneman argued that there are different policies for distribution of school resources between Latin America and the former socialist countries. The distribution of school resources in Latin America may be the most inequitable of the world's regions whereas the distribution in the former socialist nations may be the world's most equitable. But Heyneman was not sure ". . . whether the change in the variation of the school quality distribution between the Baker and Heyneman samples tended to depress the power of school quality to explain the variance in academic achievement, suggesting instead that socio-economic status was the dominant determinant of achievement" (pp. 442-443).

Harber and Muthukrishna (2000) explored the issue of whether lists of characteristics constituting the effective schools in industrialized countries were universally valid. They argued that school effectiveness must be understood contextually since there were significant differences between both the material and ideological contexts of schooling. The study used three examples of schools that could be considered effective in the context of the new South Africa to demonstrate the difficulties in judging schools in one context using criteria developed in another. It concluded by arguing that education for peace and democracy is an essential feature of school effectiveness in South Africa. The implication of the conclusion is that it is difficult to apply a set of Western school improvement strategies in

the context of South Africa where schools are so diverse in their needs and resources and where one crucial area of establishing some acceptable, minimal level of functional effectiveness is safety and non-violence.

In one study, Willms and Somers (2001) examined the relationships between 3 schooling outcomes (language and mathematics, and the time to complete primary schooling) and family background, as well as various school policies and practices in Latin America. The study employed hierarchical linear regression models and the data included data for 13 Latin American countries, with samples of about 100 schools in each country, and 40 grades 3 and 4 pupils sampled in each school. The authors concluded that the effects associated with school-level variables indicated that the most effective schools had those characteristics: high levels of school resources, including a low pupil-teacher ratio, more instructional materials, a large library, and well-trained teachers; classrooms which are not multigrade, and where students are not grouped by abilities; classrooms where children are tested frequently; classrooms and schools with a high level of parental involvement; and classrooms that have a positive classroom climate, especially with respect to classroom discipline.

It seems there is no consensus regarding how schools contribute to students' achievement in developing countries. Nevertheless, an earlier review (Fuller & Clarke, 1994) of SER in developing countries found that the following three factors were important: (1) availability of textbooks and supplementary reading material, (2) teacher qualities (e.g., teachers' own knowledge of the subject and their verbal proficiencies), and (3) instructional time and work demands placed on students (pp. 127-132).

A more recent review of SER in developing countries produced the following conclusions:

- confirmation of the phenomenon of large between-school variances in developing countries;

- fair support for the effectiveness enhancing potential of factors like material and human resources, parental involvement, frequent testing of students, orderly atmosphere;

- the striking example of Cuba (Willms & Somer, 2001), which can be read as an illustration of relatively high achievement not necessarily happening at the cost of equity;

- the importance of taking into account the macrolevel context when studying school effectiveness in developing countries, both in the sense of structural and cultural conditions;

- the specific relevance of the cost-effectiveness perspective in developing countries over and above merely studying school effectiveness;

- application of the school effectiveness knowledge base for the design and institutionalization of educational monitoring and evaluation in developing countries (Scheerens, 2001, pp. 356-357).

From these last two reviews, we can see some different characteristics of school effectiveness in developing countries as opposed to industrialized countries (e.g., larger between-school variation, a greater effect of material and human resource input factors, and the importance of cultural contexts). Fuller and Clarke (1994) concluded that cultural

contexts might help explain why school and classroom level variables are important in one country but not in another one. In the next section, we can see how scholars address the effects of societal cultures on school effectiveness in East Asian societies.

A Review of the Relevant Literature on School Effectiveness Research in China and Other East Asian Societies

As noted previously, much of the existing research on SER has been the product of the five countries: the USA, the UK, the Netherlands, Australia, and Canada. The limited studies that have been conducted in China and other East Asian societies were believed to come from the following sources (Teddlie & Reynolds, 2005, p. 4):

- Literature produced by scholars in Hong Kong, Taiwan and other East Asian countries, either individually or as part of research teams (e.g., Cheng, K. M., 1995; Cheng, K. M., & Wong, 1996; Cheng, Y. C., 1990, 1993; Cheng, Y. C., Cheung, & Tam, 2002; Lee, et al., 2002; Tang & Wu, 2000);

- Literature produced by Chinese scholars (e.g., graduate students) living outside China but using Chinese data sources China (e.g., Nie, 2001);

- Literature produced by Chinese scholars (e.g., graduate students) living in China (e.g., Tang, 2005);

- Literature on SER published in Chinese journals; and

- Literature on SER in China and Southeast Asia produced through the collaboration of researchers from the region and from other countries outside the region (e.g., Hallinger & Kantamara, 2001; Schaffer, et al., 2002; Townsend & Cheng, 2000).

These studies can be generally categorized as studies on both SER in China and cross-nation studies on SER. One of the limited studies on SER in China was conducted by Tang (2005). This study centered on how to implement school effectiveness evaluation in China. With school effectiveness defined as the extent to which a school has effects on its students, the school effectiveness evaluation here is defined as a process of both an assessment of the size of the effectiveness and a judgment of the value of the effectiveness.

Based on a literature review of school effectiveness evaluation for the last forty years and the educational context of the so called "quality-oriented education" in China, the author proposed a three-level model for school effectiveness evaluation. The three levels refer to student-, school-, and context-level, and each level includes different types of indicators: (1) the student-level outcome indicators, which include the three domains that the new curriculum standards advocate—cognitive domains, behavioral domains, and affective domains; (2) the school-level process indicators, which can be controlled by the school, including management factors, teaching factors, and quality factors; (3) the context factors, which can't be controlled by the school but which affect students, including students' gender, social economic status (SES), school location, and the grade phase of schooling of that school.

The author then selected two middle schools to do a pilot study of the model. The results indicated that the model for school effectiveness evaluation was a powerful tool to identify classroom effectiveness as well as to explore effective school processes, and the model can be widely utilized. At the end of the paper, the author proposed some suggestions for China to implement the school effectiveness evaluation such as a consensus view on

education quality and on school effectiveness evaluation, an accepted evaluation indicators system, an organization for data collection, and reliable statistical techniques.

Sun and Jong (2001) compared China and Belgium with respect to secondary education, school effectiveness, and teacher development from the national contextual level as well as the school level. Their study indicated that different values, cultures, and social contexts lead to different educational systems and it is difficult to tell which one is better since "each system is growing on the tree rooted in its own soil (embedded in its own national context)" (p. 420). Nevertheless, they advocated that countries should learn from each other. For instance, Chinese schools should learn the close school-parent contact, teachers addressing the first names of students, and the textbook-rental system from Belgium schools.

The study of Schaffer et al. (2002) was a part of the International School Effectiveness Research Project (ISERP) (Reynolds et al, 2002), which was a multi-year study of differential school effects in nine countries, and whose aim was to provide insight into what may be universal and specific factors producing effectiveness in schools and classrooms across nations. The Schaffer et al. (2002) examined four schools in Taipei, Taiwan. These schools came from two dimensions of socio-economic status and school effectiveness: three low-SES schools (one more effective school, one typical effective school and one less effective school) and one middle-SES school (a more effective school). The findings from this study indicated that there was limited variance in performance and processes among schools and children in Taipei's schools in terms of curriculum delivery, classroom climate, teacher satisfaction and attitudes, staff relationship, principal performance, school organizational characteristics, and school physical conditions. For example, the curriculum

did not differentiate between schools, since Taiwan's curriculum is determined nationally. Despite the similarities in curriculum and resources, there were at least two elements that revealed differences among schools. One was that criticism of children in the less effective schools was endemic, and the other was that the involvement of parents was greater in the more effective schools. Reynolds et al, 2002 concluded that there were differences between the English-speaking countries (e.g., the USA, UK) and the Pacific Rim societies (e.g., Taiwan, Hong Kong) in the factors that were most useful in explaining effectiveness. In English-speaking countries, personal factors such as the quality of the principal could explain which schools were effective, while in Pacific Rim societies, system factors were more important in the explanation.

The impetus for international SER has evolved to a large degree primarily from international comparisons of educational achievement conducted the 1980s and 1990s. Students' academic achievement in mathematics and science in East Asian societies such as Singapore, Japan, Korea, Taiwan, and Hong Kong were consistently better than that of students in many Western countries. This inevitably increased scholars' interest in exploring the characteristics of educational systems, schooling processes, and cultural factors in explaining high levels of East Asian students' test scores (Cheng, 2000). Zhou (2004) attributed the consistently higher achievement in mathematics and science by East Asian students compared to American students to the differences in (1) teaching and learning practices, (2) cultural value placed on education and on specific content areas such as mathematics and science, and (3) beliefs about the relationships among effort, ability, and academic performance. The following review will be organized around these three categories.

Educational Practices

Many scholars believe that there are not only leadership style differences between cultures, but also differences in the meaning of leadership (e.g., Punnett, 2004; Dimmock & Walker, 2000a). Dimmock and Walker pointed out, "Leadership and management may not mean the same in different societal cultures. In Western countries, for example, leadership is seen to rest on a set of technical skills, whereas in Chinese societies it is viewed as a process of influencing relationships and modeling what are deemed to be 'desirable' behaviors" (pp. 304). Cheng and Wong (1996) also suggested that the concept of leadership effectiveness in East Asia was different from that in Western societies, with the former focusing more on moral dimensions and the latter focusing more on particular leadership skills.

Walker and Dimmock (2002) addressed several dimensions to ascertain the influences of societal culture on leadership process (pp. 182-183). The first dimension concerned the role of principals. They argued that in Western societies, principals were more inclined to consider the individual needs of both teachers and students than their counterparts in East Asian societies, such as China, Thailand, and Japan. In the latter countries, the role of principals focused on developing and ensuring harmony among staff and enforcing common, standard approaches to governance, organization, curriculum and instruction, since education was seen as the means whereby students adapted to the expectations of the community.

The second aspect they addressed concerned respect and power. They agreed with others (e.g., Hampden-Turner & Trompenaars, 1997; Hofstede, 1991) that cultures attribute status, respect and power according to different norms. In Chinese society, for example,

respect might be attributed to position, age, or family background, whereas in New Zealand, it may be attributed more to the person's personal or on-the-job competence.

Their third point concerned conflict and participation. They concluded that different cultures deal with conflict and participation in different ways. For example, "the disturbance of interpersonal relations and group harmony through conflict can cause lasting animosity in Chinese cultures" (Walker & Dimmock, 2002, p.182). As a result, Chinese tend to avoid open confrontation and assertiveness. In school contexts, for example, Chinese principals tend to avoid situations that might cause conflict and instead to rely on authoritarian decision-making modes.

Their final point involved task/relationship orientation. They argued that self-oriented societies, such as the USA, the UK, Australia, France, and Germany generally focus on task achievement rather than maintenance of relationship, when compared to group-oriented societies such as most East Asian societies.

In a study of what makes a good teacher, Cortazzi and Jin (1996) administered questionnaires to college students in China and Britain and uncovered several interesting differences. Good Chinese teachers were believed to have "deep" knowledge, to provide an answer to learners' questions, and to be moral examples, whereas good British teachers were seen more as arousing learners' interest, explaining clearly, using effective methods, and organizing a variety of activities.

In spite of the fact that Chinese students outperform students from the USA in many international competitions in mathematics and other natural sciences, the study of Niu and Sternberg (2003) showed that Chinese students' artwork was perceived as less creative when

compared with their counterparts from the USA. Niu and Sternberg attributed the discrepancy to the differences between the two countries in terms of teaching practices and educational testing systems. It has been shown that children who engage in self-exploratory activities generally cultivate a strong interest in creative expression (Oreck, 2001). Teaching practices in the USA school system embraces self-orientation and self-expression, while the Chinese school system emphasizes the learning of basic knowledge and analytical skills, which may lead Chinese students to a lower level of creativity (e.g., Niu & Sternberg, 2003). With regard to educational testing systems, Niu and Sternberg contend that tests play a far more important role in China than they do in the USA. Students in China are very concerned about doing well on standardized tests, which may lead to less incentive for cultivating creativity.

Cultural Value Placed on Education

According to Cheng (2004), the gross domestic income per capita in 2001 was US $890 (World Bank, 2003), which continued to keep China in the lower brackets of the world's economies. On the other hand, however, China's education system has been as a model for effective schooling (Cheng & Wong, 1996). One possible explanation for this apparent discrepancy might be China's cultural heritage with its long history of valuing education and scholarship (Cheng, 2000). This cultural explanation has been shared by other scholars (e.g., Stevenson & Stigler, 1992; Zhou, et al., 2004). Stevenson and his colleagues spent two decades conducting research comparing American, Japanese, and Chinese educational systems and students' academic achievements, particularly in the domain of mathematics (Stevenson & Stigler, 1992). They found that the scores of American children were far lower than those of their Japanese and Chinese peers on tests of mathematics. They

attributed this discrepancy to cultural differences in beliefs about and attitudes toward

education and effort, the organization of schooling, school curriculum, the practice of

teaching, and students' school activities.

Labaree (1997) identified three models of schooling's purpose: democratic

equality, social mobility, and social efficiency. He defined the social mobility goal for

schooling as the following:

> The social mobility goal for schooling, arising from the values and beliefs inherent
> in meritocratic ideology, embodies the liberal vision of free choice and limitless
> possibilities that has helped make capitalist democracy such an appealing model for
> the organization of political and socioeconomic life. This ideology promises
> students that through schooling they can achieve anything within the limits of their
> own desire and personal capabilities." (Labaree, 1997, p. 36)

China is a hierarchical society, and this hierarchy allows some limited mobility.

Traditionally, education in China has always been the means for social mobility. In ancient

China, this mobility was achieved almost completely through education, specifically through

civil examinations. This practice was influenced by one of the Confucian educational

purposes: applying what has been learned to serve the state (Wong, 2001). Thus, from the

Han dynasty (206 BC-AD 220) to the Qing dynasty (AD 1644-1911), officials were almost

without exception selected from among scholars. After the Song dynasty (AD 960-1279),

such selections were done through competitive civil examinations held at the imperial court

(Cheng & Wong, 1996; Wong, 2001).

Although the civil examination has been abolished for more than a century, the

similar examination system still exists in today's China, but in the form of the national

uniform college entrance examination (NUCEE) rather than the civil examination. The

NUCEE is almost the only way through which a farmer's child can leave the village and a

student from a poor family can escape poverty. Farmers interviewed by Cheng (1996) have confirmed that the sole reason that they support their children's education was to change the social status of the next generation. After studying Chinese learners, Watkins and Biggs (1996) concluded, "The belief in the possibility of upward social mobility through educational success was important, and became a significant driving force for many ordinary people to study hard for a better future" (p. 38).

Since the late 1970s, the Chinese government has conducted a series of reforms in order to promote economic development. One of the most important reforms is the market reform, which has led to a rudimentary labor market emerging in China, despite the fact that a large majority of the labor force continues to be employed in state-run or collective enterprises. As such, "school-leavers are increasingly expected to take a role in locating their own jobs rather than being assigned to them by municipal labor bureaus" (Broaded, 1998, p. 30).

Studies on changes under China's reforms have been dominated by market transition theory, which views the institutional change in China as a shift from redistribution to market. Cao (2004) stated, "Meritocracy arises insofar as market competition rewards human capital and work effort" (p. 439). Thus, the educational function of upward mobility motivates students to study hard to enter colleges and get better jobs later.

Beliefs about the Relationship among Effort, Ability, and Academic Performance

There are two socio-cultural aspects of Confucian-heritage societies which could help explain the high academic performance of Chinese students in comparison with students from western societies. One is the attribution for academic success, while the other is the

collectivist culture. According to Dimmock and Walker (2000b), Chinese attribute academic

success more to effort than ability, and ability has been played down and considered as an

attribute that could be acquired or modified through effort. The Hess and Azuma study

(1991) compared families' beliefs about their children's achievement in China and in the

USA, and revealed a gradual change in attribution pattern among Chinese living in China,

Chinese living in the USA, and American Caucasians. Chinese mothers in China attributed

their children's failures mainly to a lack of effort, whereas Chinese mothers in the USA

viewed effort as important, but assigned considerable responsibility to other sources as well.

American Caucasians rarely attributed their children's failure to effort. "Attribution theory

(Weiner, 1979) suggests that the belief that one has a fixed endowment of ability—beyond

one's control— is likely to reduce the motivation to work hard, particularly at tasks estimated

to carry a significant risk of failure. In contrast, if effort is seen as most important in

determining outcomes, potential failure can be overcome by making greater effort" (Hufton,

Elliott & Illushin, 2002, p. 70).

Secondly, the Chinese collectivist culture increases the likelihood that children will

be highly motivated. Hofstede (1980, 1991) argues that most Western societies are

individualist whereas most Asian societies are collectivist. Chinese culture has been marked

by collectivism, such that children were educated to be obedient and loyal towards their

family. Thus, students work hard to satisfy not only their own goals but also the collective

goals of their families. With collectivistic values in mind, Chinese children consider

academic success as an important source of pride for the entire family (Stevenson & Lee,

1996). As a result, Watkins and Biggs (1996) concluded that for Chinese students, learning

"may be motivated by a head of mixed motivation steam: personal ambition, family face, peer support, material reward, and, yes, probably even interest" (p.273).

From the reviews in this section we can see that culture is an important force in SER because what works in one culture may not work in another. However, Anglo-American scholars have exerted a disproportionate influence on theory, policy, and practice such that "a relatively small number of scholars and policy-makers representing less than 8% of the world's population purport to speak for the rest" (Dimmock & Walker, 2000b, p. 145). This ethnocentric and largely Western tradition continues to impact the development of SER. Therefore, some scholars (e.g., Dimmock, 2000; Teddlie, 2003; Walker & Dimmock, 2002) have advocated a more international framework for SER. Specifically, some regard the cross-cultural study of SER as the future for the field, since culture is the main contributing factor explaining the many differences between East Asian and Western societies (Wong, 1998).

CHAPTER THREE: CHINA'S CONTEXT

The People's Republic of China is situated in eastern Asia, bounded by the Pacific Ocean in the east. As the third largest country in the world, it has an area of 9.6 million square kilometers, which equals to one-fifteenth of the world's land mass. At present, China is divided into 22 provinces (excluding Taiwan), 5 autonomous regions, including Xizang (Tibet), 4 municipalities directly under the Central Government (Beijing, Chongqing, Shanghai, and Tianjin), and 2 special administrative regions (Hong Kong and Macao) (The Europa World Yearbook, 2003). (See the map of China in Appendix A1). China is the world's most populous country with a population estimated at about 1.292 billion[8] by the end of 2003 (The Europa World Yearbook, 2005), one-fifth of the world's total population.

The state administrative organs of China include the central and local ones. The central administrative organ is the Central People's Government, known as the State Council. The local administrative organs are currently based on a three-level system dividing the nation into *Sheng, Zi Zhi Qu* and *Zhi Xia Shi* (provinces, autonomous regions, and municipalities directly under the Central Government), *Di Qu, Shi* and *Xian* (autonomous prefectures, cities, and counties), and *Xiang Zhen* (towns and townships) (Nie, 2001).

Basic Education in China

The Education System

The education system in China can be divided into basic education and higher education, with the former consisting of three stages: pre-school education, primary

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[8] This figure excludes the Chinese living in the Hong Kong and Macao Special Administrative Regions, and Taiwan Province.

education, and secondary education, while the latter includes regular higher education and adult higher education (Mission of the People's Republic of China to the European Communities, 2003). Kindergarten schools last 3 years. Children from 3 to 5 attend kindergartens where they learn the basics of the native language and arithmetic, play games, and learn dancing, singing, and so on. At the age of 6, children attend primary schools where they are required to take a variety of subjects such as Chinese language and mathematics. Primary schools are usually run by local educational authorities, and in some cases, by private institutions or individuals. Secondary education is further divided into junior and senior secondary education.

According to the Compulsory Education Law, which took effect on July 1, 1986, each child in China is required to have nine years of formal schooling; that is, each child has to finish primary education and junior secondary education: either the 5-4 system, five years of primary education followed by four years of junior secondary education, or the 6-3 system, six years of primary education followed by three years of junior secondary education. The 6-3 system is replacing the 5-4 system and becoming commonplace. According to the statistics of 2002, the net enrollment rate of primary school age children attained 98.58%, and the proportion of primary school graduates continuing their study in junior secondary schools reached 97.02% (MOE, 2003).

Senior secondary education includes regular secondary education, which prepares students for entering colleges, and vocational and technical secondary education, which trains students in specialized fields to enter the workforce immediately after graduation from high school. Students at general secondary schools learn such subjects as Chinese language,

mathematics, foreign language (mostly English), physics, chemistry, biology, geography, history, and politics. Vocational secondary schools train medium-level workers, farmers, and managerial and technical personnel, while technical secondary schools train intermediate technical personnel.

There are two large-scale examinations for students in basic education. One is *Zhong Kao*, the high school entrance examination, and the other is *Gao Kao*, the college entrance examination.

Administration of Basic Education

Administration of basic education in China is highly centralized. The central government macro-manages all basic education functions, while the national Ministry of Education is responsible for: (1) formulating laws, regulations, and policies, (2) overall planning, and (3) general supervision and guidance of the work of the local educational administrative departments (China Education and Research Network, 2003).

In 1985, the Central Committee of the Communist Party of China (CPC) issued the "Decision on the Reform of the Educational System," laying down the principle that local governments should be responsible for basic education. The new policy was an incentive for local governments, especially those of the counties and townships, to be in charge of basic education (MOE, 2003). With the trend of decentralization, known as *Di Fang Fu Ze Fen Ji Guan Li*, a multilevel administration of basic education, with local authorities, specifically the counties, assuming the main responsibility, has been universally implemented in basic education (Zhu, 1997).

A corresponding development in school administration is the diminishing influence of the Communist Party of China in the day-to-day running of the schools. Instead, a system of *Xiao Zhang Fu Ze Zhi* (a principal being in charge of the school) began, which led to the emergence of school autonomy in China (Nie, 2001). "A principal being in charge of a school" means that a principal has the following responsibilities:

- making decisions for school affairs,

- selecting the members of the school management team and recruiting teachers,

- arranging all the activities of teaching and learning, and

- arranging financial resources. (Nie, 2001, p. 59)

Financing of Basic Education

Accompanying the decentralization of educational administration was the decentralization of the financial system. The financial decentralization has the same meaning as the decentralization of basic education administration (i.e., *Di Fang Fu Ze Fen Ji Guan Li)*. Another financial reform initiated from 1985 is financial diversification (Tsang, 2000). In the past, "planning, administration and finance of schooling were directed from the central state, with the provinces and counties being charged with the responsibility of implementing policies decided on the national level in the administration and finance of schooling" (Lo, 1999, p. 44). Since 1985, school funding has included two sources: (1) state appropriation from the central and local governments, which covered most of the school funds before 1985; and (2) *Duo Qu Dao* (multiple channels). Multiple channels refer to taxes for education levied by various levels of government, donations obtained locally or

from abroad, educational funds provided by enterprises for operating schools, income used for funding education from school-operated industries, fees collected from students, and so on (Zhu, 1997).

Although China is implementing a nine-year compulsory education, all K-12 students have to pay tuition, and miscellaneous charges used for tutorial classes, exercise books for tests, extra learning materials and stationery, etc. Key schools may collect extra money from the following students (Lo, 1999, p. 49): (1) those who live outside the admission districts of the preferred schools, (2) those whose test scores fall slightly short of the required standards of the schools, and (3) those whose family connections secure preferential treatment by certain preferred schools (Nie, 2001).

Curriculum and Teaching of Basic Education

The school year of primary and secondary school is divided into two semesters. The school year of primary schools comprises 38 weeks of teaching sessions with an additional week in reserve and 13 weeks for holidays and vacations. A five-day week has been implemented in primary and secondary schools (MOE, 2003). The following tables present the schedule, the subjects, and the corresponding teaching hours in a typical primary school in China. This school begins at 7:20 am and closes at 16:00. The daily schedule of this school is as shown in Table 3.1.

From Table 3.1 we can see that there are breaks between any two periods of classes, either recesses outside, or eyesight-preserving exercises inside, or both. Also, lunch time is one hour and a half, since most of the faculty and students in this school go home for lunch. Table 3.2 and Table 3.3 present the subjects and the corresponding teaching hours in that

school. The numbers in each cell refer to the number of periods of 40 minutes each week, and

the percentage of each subject in the total weekly teaching hours at each grade.

Table 3.1 Schedule of a Primary School

7:20—7:30	Morning meeting at each class
7:30—7:50	Morning body exercise at the school playground (the whole school together)
7:50—8:30	The first period of class
8:30—8:40	Recess
8:40—9:20	The second period of class
9:20—9:30	Massages to preserve eyesight
9:30—10:10	The third period of class
10:10—10:20	Recess
10:20—11:00	The fourth period of class
11:00—12:30	Lunch Break (the whole school at the same time)
12:30—13:10	The fifth period of class
13:10—13:20	Recess
13:20—14:00	The sixth period of class
14:00—14:05	Massages to preserve eyesight
14:05—14:15	Recess
14:15—14:55	The seventh period of class
15:05—15:45	After-school activities

Source: Guojiazhen Primary School, Changchun, China

Table 3.2 Curriculum and Teaching Hours of a Primary School (1-3 grades)

	Grade 1 (%)	Grade 2 (%)	Grade 3 (%)
Moral Education and Life Moral Education and Society	3 (9.7)	3 (11.5)	2 (6.6)
Language	7 (22.5)	7 (26.9)	7 (23.3)
Mathematics	4 (12.9)	4 (15.4)	4 (13.3)
English	5 (16.1)		2 (6.7)
Science			2 (6.7)
Art (Music)	4 (12.9)	4 (15.4)	4 (13.3)
Physical Education	4 (12.9)	4 (15.4)	3 (10)
Comprehensive Courses			2 (6.7)
Regional Courses	2 (6.5)	2 (7.7)	2 (6.7)
School-Based Courses	2 (6.5)	2 (7.7)	2 (6.7)
Total	31 (100)	26 (100)	30 (100)

Source: Guojiazhen Primary School, Changchun, China

There are a difference between subjects for the lower grades (grades 1-3) and those

for the upper grades (grades 4-6). The subjects for the lower grades are based on the new

Curriculum Standards, which was piloted from 2001, while the subjects for upper grades are

not. The new Curriculum Standards emphasize *Comprehensive Courses* (e.g., project-based

learning), *Regional Courses*, and *School-Based Courses*. Also, the new Curriculum Standards

do not require that students at grade 1 and 2 learn English, so this school does not provide

English to second graders due to the limited number of English teachers.

Table 3.3 Curriculum and Teaching Hours of a Primary School (4-6 grades)

	Grade 4 (%)	Grade 5 (%)	Grade 6 (%)
Moral Education	1 (3.4)	1 (3.7)	1 (3.7)
Language	10 (34.5)	8 (29.6)	9 (33.4)
Mathematics	5 (17.3)	6 (22.2)	5 (18.5)
English	3 (10.4)	3 (11.1)	3 (11.1)
Social Studies	2 (6.9)	2 (7.4)	2 (7.4)
Science	2 (6.9)	2 (7.4)	2 (7.4)
Physical Education	2 (6.9)	2 (7.4)	2 (7.4)
Music	2 (6.9)	1 (3.7)	1 (3.7)
Art	1 (3.4)	1 (3.7)	1 (3.7)
Labor Practice	1 (3.4)	1 (3.7)	1 (3.7)
Total	29 (100)	27 (100)	27 (100)

Source: Guojiazhen Primary School, Changchun, China

No matter whether based on the new Curriculum Standards, the courses described

in Table 3.2 and Table 3.3 reflect the goals of education in China. Although some scholars

(e.g., Huang, 2004) argue that there are many unclear and confusing aims of education in

China, it is well accepted that the goals of education are to serve China's modernization and

foster successors for the socialist cause through well-all-rounded (e.g., morally, intellectually

and physically) development approach (Nie, 2001). For example, the outline of the

curriculum for basic education by the Ministry of Education includes moral education,

intellectual education, physical education, aesthetic education, and technical education (i.e.,

labor education) (Department of Foreign Affairs of the State of Education Commission of P.

R. of China, 1997, pp. 13-62). The expectations are as follows:

- Moral Education

    - to study elementary knowledge of Marxism and common knowledge about

social science

    - to develop the ability to judge what is good and what is bad

    - to foster good habits in the students through the cultivation of *Wu Ai*, the Five

    Loves: love for country, love for people, love for work, love for science and

    love for socialism, and

  - to formulate norms of daily behaviors.

- **Intellectual Education**

  - to study the basics of languages, literature, math, physics,

   chemistry, geography and history, and

  - to master the basic skills in problem-solving.

- **Physical and Health Education**

  - to study the basics

  - to keep healthy and cultivate good habits, and

  - to develop one's physique and body functions.

- **Aesthetic education**

  - to study the basics

  - to raise the ability of aesthetic judgment, and

  - to develop an interest in art and certain abilities of artistic appreciation.

- **Technical education**

  - to cultivate a positive attitude towards manual work

  - to foster sentiments of an ardent love for labor and for laboring people, and

  - to learn basic knowledge and skills. (As quoted in Nie, 2001, p. 67)

Educational Conditions

In 2002, there were altogether 456,900 primary schools with an enrollment of 121,567,100 students. The number of full-time teachers in primary schools was 5,778,900. The proportion of students to teachers was 21.04: 1 (MOE, 2003). According to Wang and Zhou (2002), significant progress in national education attainment and schooling effectiveness has been achieved in China in terms of what Levin and Lockheed (1993) called "three matters": growing participation (enrollment, completion, and achievement); more effectiveness (less dropout and repetition, and positive learning result); and increasing resources (more expenditures per student, annual recurrent public educational expenditures, qualified teachers, facilities, textbooks, and others). Generally, the "three matters" have been, to a great extent, well addressed in China in the reform era, especially in the late 1990s (MOE Department of Planning and Development, 1998). For instance, except for a few schools in locations with extremely adverse conditions that preclude electrical connections, most schools have realized the *San Tong* (three connections, meaning that water, electricity, and road linkups to every school must be guaranteed) (Cheng, 1993). In the poorest school communities, the Ministry of Education minimum requirements were *Yi Wu Liang You* (one "have-not" and two "haves." One "have-not" means that no school should have dangerous school buildings or facilities. Two "haves" means that every school must have classroom buildings and that every student must have a desk and stool in the classroom (Cheng, 1993).

Nevertheless, the educational conditions in China are still poor, as Tsang (2000) concluded,

Despite the increase in total resources for education since the early 1980s, education at various levels remains inadequately funded, especially in terms of low/unpaid/under-paid teacher salaries, poor conditions of many rural schools, and sub-standard equipment and facilities of educational institutions at various levels. (Tsang, 2000, p.14)

First, Chinese classrooms are often so crowded that there is barely walking space in the aisles. Circular seating is common in kindergartens, but classrooms in primary and secondary schools often have double desks or fixed desks with four to six seats, which are difficult to move (Jin & Cortazzi, 1998). Second, the ratios of primary schools that can reach the nationally determined standards in the areas of sports ground and gymnasium, disposition of musical instruments, artistic equipments, and mathematical and natural experimental equipment are only 48.79%, 37.70%, 35.69%, and 49.37%, respectively (MOE, 2003). Furthermore, due to significant insufficiency of funds for compulsory education, nowadays, there are dangerous buildings[9] in schools with a total of 13 million square meters across the country. These schools are mainly distributed in rural areas of Central and West China. Though the number of dangerous buildings in schools is less than 1% of the total, this proportion is higher in rural areas of Central and West China regions with less-developed economies. For instance, in Ningxia Hui Autonomous Region, the proportion of dangerous buildings in middle schools is 5.32% and in primary schools is 4.6%. In some poverty-stricken counties, this figure climbs to 10%~15% (Yang, 2001).

Two Major Characteristics of China's Education System

There are differences between regular and key school, especially in urban areas. There are also differences between urban and rural schools in terms of educational resources and education quality.

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[9] Dangerous buildings refer to those school buildings that might collapse and harm students inside them.

Differences between Key and Regular Schools.   At all levels of basic education,

schools can be classified as regular or key schools in China. Key schools refer to those

schools that are selective in their admission criteria and have advantages in financing,

facilities, and teacher qualifications. The practice of key schools was abandoned during the

Cultural Revolution (1966-1976), it was, however, resumed in the late 1970s and early

1980s in order to (1) produce maximum educational returns in the shortest time, particularly

to produce more qualified graduates for a higher-level institution, and (2) serve as a

teaching and learning model for regular schools to improve the overall quality of basic

education. Because educational resources were scarce, some institutions, especially those

with the best records of past educational accomplishment, were selected to be given

priorities in the assignment of financial, physical, and human resources that were supposed

to otherwise be distributed equitably for all schools. Key schools were also allowed to

recruit the academically excellent students and train them to compete for admission to top

schools at the next level (Wang & Zhou, 2002).

From the 1980s, key schooling systems were expanded greatly. Even in a regular

school that did not have key status, key classes were developed for better-performing students

through utilizing the school's concentrated resources. This dual track system (i.e., a bifurcated

educational system with a small sector of key schools for the elite and a large sector of

regular schools for the masses) made the whole basic education exam-oriented, which was

considered counterproductive to reform objectives, particularly universalization of 9-year

schooling (Rosen, 1987).

As such, from the mid 1990s, the central educational authorities decided to de-emphasize the elite track. Educational policies were explicitly stated that all primary and secondary schools should admit students in their communities (Wang & Zhou, 2002). In 1996, Li Lanqing, the then Vice Premier in charge of education, declared: "We must, from now on, no longer promote key middle schools or continue contributing all of our human, physical, and financial resources and all of our subsidies and donations into such schools" (Li, 1997). But in reality, even today, key schools or schools with other names (e.g., experimental schools, demonstration schools) still exist. Parents know exactly which school is a higher-quality one (i.e., a school with the best academic performance). For students whose test scores do not reach the minimal admission criterion of a key high school, their parents often pay extra money to send their children there so that their children have a better chance of eventually entering universities.

There are different levels of key schools. Take the key elementary schools in Changchun, the capital of Jilin Province, for example. There are city-level as well as district-level key elementary schools, with the former constituting a small number (only several in Changchun).

Differences between Urban and Rural Education.   Due to regional differences in terms of resources, there are gaps between urban and rural schools, and between schools in developed areas and underdeveloped areas. According to Tsang (2000), a recent study (World Bank,1999) based on a representative sample of 511 counties in China contains information regarding per-student spending in primary and secondary education from 1994 to 1997. Data from primary education indicated that the disparity between urban and rural

areas was on the increase: the urban-to-rural spending ratio was 1.28 in 1994 and 1.46 in 1997.

According to Zhou, et al. (2004), the rapid economic development in China during the past several years has led to increasing socioeconomic and educational disparities among China's regions. Although children in China have equal rights to education, the increasing disparity between industry and agriculture, and between cities and the countryside, has led to disparities in educational quality. In underdeveloped rural areas, state and local governments typically do not have the means to support a quality education. As a result, children in those areas tended to perform more poorly than do children from urban areas on achievement tests.

As former premier Peng Li admitted, a wide gap between urban and rural education exists, and the latter continues to face an arduous task (Hong, 2001). For instance, in 1998 the country's college student population numbered 6 million, but only one-tenth was from rural areas (Hong, 2001).

Basic Education in Jilin

With Changchun as its capital, Jilin Province is situated in the middle of northeast China. Its area is 187, 400 square kilometers, and its population is 27.085 million in 2004, constituting 2% or so of the nation's total area and population, respectively. It has nine cities (prefectures) and 60 counties (cities, districts) within its jurisdiction. The nine cities (prefectures) include eight prefecture-level cities and one autonomous prefecture: Changchun (长春市), Jilin City (吉林市), Siping (四平市), Liaoyuan (辽源市), Tonghua (通化市), Baishan (白山市), Songyuan (松原市), Baicheng (白城市), and Yanbian Korean

Autonomous Prefecture (延边朝鲜族自治州). (See the map of Jilin Province in Appendix A2).

Jilin province is an economically poor, but educationally well-developed, province in China (Jin & Cortazzi, 1998). There are 1.3438 million people who have received college education, accounting for about 5% of the total population, and 15.08 % of the total people have received secondary education (including vocational and professional education) (Statistics Bureau of Jilin Province, 2004).Table 3.4 includes the distribution of primary schools in Jilin.

Table 3.4 Distribution of Primary Schools in Jilin Province

Region	Total	Urban	Rural
Changchun	1772	259	1513
Jilin	1062	203	859
Siping	1156	158	998
Liaoyuan	506	42	464
Tonghua	647	106	541
Baishan	416	115	301
Songyuan	941	51	890
Baicheng	874	126	748
Yanbian	407	65	342
Total	7781	1125	6656

Source: Educational Department of Jilin Province, 2004

Jilin Province Evaluation System for Primary Schools

The current evaluation system, effective from October 15, 2004, includes three-levels of evaluation indicators (Educational Department of Jilin Province, 2004):

(a) the first level has 6 indicators,

(b) these first level indicators are sub-divided into 19 second level indicators, and

(c) these second level indicators are further sub-divided into 44 third level indicators.

The six first level indicators and part of the second level indicators are as follows:

- Orientation for running the school,

- Staff management

(1) Management of leaders

(2) Management of teachers

- Conditions of running a school

- School management

(3) Management of moral education

(4) Management of teaching

(5) Administrative management

- Educational quality

(6) Quality of moral education,

(7) Academic quality,

(8) Quality of physical education,

(9) Quality of labor education

(10) Quality of aesthetical education,

(11) Students' personality development

Basic Education in Changchun

Changchun, the capital of Jilin Province, is made up of six districts (Shuangyan 双阳, Luyuan 绿园, Erdao 二道, Kuanchen 宽城, Nanguan 南关, Chaoyang 朝阳), and four county-level cities (Jiutai 九台市, Dehui 德惠市, Nongan 农安县, Yushu 榆树市). (See the map of Changchun in Appendix A3). By the end of 2004, its population was 7,130,000, among which 3,050,000 lived in the six districts and 4,080,000 lived in the four county-level

cities. There were 77 high schools, with 136,300 students; 300 middle schools, with 329,700 students; 1,772 primary schools, with 36,852 teachers and 502,000 students, and 17,391 classes. The following table presents the distributions of the population and the primary schools in the six districts and the four county-level cities in Changchun.

Most schools in the four county-level cities are rural schools. For example, the 297 elementary schools in Dehui include 13 schools in urban area, 23 in towns, and the remainder in villages. The average number of teachers for each primary school in Dehui is about 21.

Table 3.5 Distribution of Population and Primary Schools in Changchun

	Shuangyan	Luyuan	Erdao	Kuanchen	Nanguan	Chaoyang	Jiutai	Dehui	Nongan	Yuahu
School	134	10	53	54	50	51	298	297	381	386
Population (in Thousands)	380	530	380	430	620	710	830	910	1,120	1,220

Source: Statistics Bureau of Changchun, 2004.

CHAPTER FOUR: METHODOLOGY

As described in Chapter One, this study has utilized mixed methodology to test the following research hypotheses and answer the following research questions:

Research Hypothesis #1: The processes of effective schools in China are similar to those described in the international school effectiveness literature (e.g., Reynolds & Teddlie, 2000). These processes include effective leadership, effective teaching, a focus on learning, a positive school culture, high expectations for students and staffs, staff development, and so forth.

Research Hypothesis #2: The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature (e.g., Campbell, Kyriakides, Muijs, & Robinson, 2004). These processes include maximizing classtime, exhibiting best teaching practices, adapting practice to particulars of classroom, and so forth.

Research Question #1: What are the differences in the processes of effective schooling in China as opposed to those described in the international literature?

Research Question #2: What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?

Research Question #3: What are the differences in the processes of effective teaching in China as opposed to those described in the international literature?

This chapter starts with a description of the specific research design that has been employed in this study and justification for its use. It is followed by descriptions of the sampling, data collection, and data analysis techniques. Finally, the chapter addresses techniques used to determine the inference quality of the conclusions.

The Mixed Methods Design Used in this Study

Contextually sensitive studies of SER have been and will continue to be an important topic; however, different context factors may be more important in different countries (Teddlie & Reynolds, 2005). In China, community type (rural, urban) should be a major context variable in SER since there is a big difference in education between rural and urban areas, as described in Chapters 1 & 3.

Studies have demonstrated that urban students perform better academically than rural students. The Xie and Tan (1997) study demonstrated a difference of 1.84 percentage points between the urban and rural areas, as cited by Lo (1999). Another large-scale survey carried out by the Ministry of Education revealed that the academic achievement of pupils in urban areas was higher than pupils in townships, whose achievement was in turn higher than pupils in rural areas (Tang & Wu, 2000). The study of Zhou, et al. (2004) confirmed that children from more socioeconomically advantaged urban areas have a better understanding of distance, time, and speed concepts than those children from less advantaged rural areas.

Thus, a type of "contextually sensitive" effective schools study, which has been previously conducted in the United States (e.g., Teddlie & Stringfield, 1993), as demonstrated in Table 4.1, was conducted in China. This design allows the testing of three effects in an analysis of variance framework: (a) the main effect for effectiveness status of school, (b) the main effect for community type (rural, urban), and (c) the interaction between the effectiveness status factor and the community type factor.

Based on the SER literature review, researchers who want to conduct contextually sensitive studies of SER often employ the case study approach to explore the different processes of

schooling. Therefore, my study has utilized a case study design. Teddlie (forthcoming)

contends that that are at least four decisions that researchers must make when they design

their case study research: (1) Is the study instrumental or intrinsic? (2) Does the case study

research call for a single case or multiple cases? (3) Does the case study research call for a

single or multiple (embedded) units of analysis? (4) What types of data are required to

answer the research questions?

Table 4.1 The Design Matrix for a "Contextually Sensitive" Effective Schools Study

Effectiveness Status of School	Schools in Rural Areas	Schools in Urban Areas
More Effective Schools		
Less Effective Schools		

With regard to these four aspects of case study design, my study is instrumental

because I am more interested in school and teacher effectiveness than the individual case per

se (i.e., the individual schools). Secondly, my study has involved multiple cases, including

more effective schools and less effective schools, in both urban and rural areas. Thirdly, since

this study has involved a simultaneous study of school and teacher effectiveness to explore

the interface between levels in schooling, embedded units of analysis have been used. Finally,

in order to answer the research question, mixed methods have been employed. Specifically, I

have selected the concurrent mixed model design (Tashakkori & Teddlie, 2003).

In the book *The Foundations of Mixed Methods Research* (Teddlie & Tashakkori,

forthcoming) and the book *Handbook of Mixed Methods in Social & Behavioral Research*

(Tashakkori & Teddlie, 2003), two forms of design models for mixed methods are presented.

One is in the form of typology (e.g., Morse, 2003; Teddlie & Tashakkori, forthcoming) and

the other is alternatively an interactive model for designs (Maxwell & Loomis, 2003).

Between these two forms of designs for mixed methods, I prefer typological designs in spite

of those limitations pointed out by Maxwell and Loomis (2003) since I want a specific

framework to follow when I design my study.

Among the typologies for mixed methods designs, I prefer the Teddlie and

Tashakkori typology (forthcoming) and the Morse typology (2003) since they are

comparatively easier to understand. Between these two, the former better suits my study for

two major reasons. First, in my study, the quantitative information and the qualitative

information obtained are of equal importance. However, the Morse typology emphasizes a

main "thrust" that provides the theoretical foundation, while data obtained from the other

approach are just used to supplement the main orientation. As a result, Morse's approach

ignores mixed method designs where the quantitative and qualitative components are equal in

importance. The Teddlie and Tashakkori typology not only focuses on the sequence of the

quantitative and qualitative components of a study (concurrent or sequential) but also pays

attention to the importance of the quantitative and qualitative components (with one

component more important than the other or equal importance of the two components). As

such, the Teddlie and Tashakkori typology is more appropriate for my study. Secondly, as

noted earlier, mixed methods have often been involved in SER. Specifically, the

concurrent/parallel mixed model design, one of the designs from the Teddlie and Tashakkori

typology, has been successfully employed in several SER studies (e.g., Teddlie & Stringfield,

1993; Reynolds et al., 2002). Since my study concerns SER, I prefer to utilize the Teddlie and

Tashakkori typology.

According to Teddlie and Tashakkori (forthcoming), three decision points are used with regard to selecting the most appropriate design: (1) how many strands (single or multiple) will the study require; (2) what sort of procedure will be employed to create the mixing (sequential, concurrent, or data conversion); and (3) at what stage will the mixing occur (only in method of study, or in all stages). My study is a multistrand (there are two relatively independent strands/phases: one with QUAL questions and data collection and analysis techniques and the other with QUAN questions and data collection and analysis techniques), concurrent (the QUAN and QUAL components of the study happen at the same time), and mixed model (the mixing occur in all stages) design. The inferences made on the basis of the results of each strand were pulled together to form meta-inferences at the end of the study. In summary, a multistrand concurrent mixed model design from the Teddlie and Tashakkori typology has been utilized for this study.

<div align="center">Sampling Strategies</div>

Since this study has utilized a concurrent mixed model design, concurrent mixed methods sampling has been employed, which has involved the concurrent use of both probability and purposive sampling strategies (Teddlie & Tashakkori, forthcoming). The following sampling techniques were used:

Selecting the Country

Criteria sampling was used to select China as a context variable. This has derived from three reasons: (1) I am from China (I am familiar with the educational contexts in China, and I am interested in conducting a study of SER there; (2) there are a few studies on school

effectiveness have been conducted in China; and (3) there are elements in the Chinese

educational environment that make it a good time to conduct SER there.

Selecting the Province

Typical case sampling determined that this study should be conducted in Jilin

Province. As one of the 33 province-level administrative organs in China (excluding Taiwan,

see Chapter 3 for details), Jilin consists of both prefecture-level cities and an autonomous

prefecture, as do some other provinces. Also, as in other provinces, the schools in Jilin are

geographically located in urban as well as rural areas, and are divided into key and regular

ones.

Selecting the City

Sampling politically important cases determined that schools should be selected

from Changchun. As the capital of Jilin province, Changchun has the largest number of

elementary schools in Jilin province. (See Chapter 3 for details).

Selecting the Districts

Stratified purposive sampling was utilized to select school districts. The three

school districts consist of two city districts, District One and District Two, from which urban

schools have been selected, and one county, from which rural schools have been selected, in

order to discover the differences between urban and rural schools in terms of the effective

schooling processes.

Selecting the Schools

Stratified purposive, intensity case, and typical case sampling techniques were used

to select schools. There were three criteria for selecting the six pairs of more effective and

less effective schools: (1) the pairs of more effective and less effective schools should be in the same school district; (2) all the sample schools are public primary schools since this could decrease the effect of students' pre-existing input achievements. Also, primary schools are more easily accessible since they do not need to prepare their students for the high school entrance exams or the college entrance exams; and (3) all the sample schools are regular primary schools.[10]

The six pairs of more effective and less effective schools (8 urban and 4 rural schools) were determined by test scores and confirmed by perceptions. More urban schools were selected because more variance in key variables has been expected in urban schools than in rural school (Teddlie & Stringfield, 1993). The school selections were done district by district, and they involved three steps:

Step 1: Identified Informants. Ms. Zhao is a director of the Teaching Research Center in the Institute of Education of Jilin Province, China. Regarding my study, she suggested using students' test scores as a main indicator in selecting schools since every district has at least one district-level examination (only a sample of students from each school participate) per semester. She also contacted three teaching coordinators for me, each from the Teaching Research Center in the three sampled districts:

- Mr. Qian, a mathematics teaching coordinator in the Teaching Research Center in the county;

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[10] There is a large difference in student achievement between key and ordinary schools, even larger than the difference between urban and rural schools (Lo, 1999). As described in Chapter 3, key schools have been given priorities in the assignment of financial, physical, and human resources and have been allowed to recruit academically excellent students.

- Ms. Sun, a Chinese language teaching coordinator in the Teaching Research Center of District One; and

- Ms. Li, a Chinese language teaching coordinator in the Teaching Research Center of District Two.

Step 2: Determined the Schools.　The three teaching coordinators determined two pairs of schools in their own district. A pair of schools was considered for inclusion in my study if they met the following criteria:

- A pair of schools have similar school resources, and their students have similar family backgrounds (e.g., SES, parents' education level), which was estimated by the teaching coordinator;

- They were the top 25% and the bottom 25% of the participating schools based on the test scores[11] for the past two consecutive years; and

- They are public regular primary schools.

Step 3: Confirmed the Schools.　After the two pairs of schools were selected at each district, Mr. Zhou, a teaching director in the Institute of Education of Changchun, was invited to confirm the result. Among the six pairs of schools, he confirmed five of them. For one pair of schools in District Two, Mr. Zhou argued that the students' family backgrounds are not that similar. Thus, Ms. Li reselected another pair of schools, to which Mr. Zhou

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[11] Every district has at least one district-level examination (mathematics and Chinese) per semester. Proportional random sampling is used to decide the participants of the examination, and often 20-30% of a school's students participate. The Teaching Research Center in the district decides which grade(s) the students are sampled from. For example, 20% of the third graders in each of the schools in the county were chosen to participate in the examination in the Spring 2004, but in the Fall 2004 the fourth graders were involved.

agreed. My final sampled schools are described in Table 4.2, and the demographic

information for each school was summarized in Table 4.3

From Table 4.3 we can see that the percentage of teachers holding the highest

degrees at an urban school is generally higher than that in a rural school. This is because

college graduates would not like to teach in a rural school due to poor living conditions and

low salaries. Only those who are from rural areas and do not have a job in a city have to be

assigned to a rural school by the local educational department.

Table 4.2 Sampled Schools for This Study

District		More effective school	Less effective school
County	The first pair of schools	Xiangyang	Guangming
	The second pair of schools	Ziqiang	Shuguang
District One	The first pair of schools	Yuren	Xuezi
	The second pair of schools	Xingfu	Anda
District Two	The first pair of schools	Changxing	Yongfa
	The second pair of schools	Jixing	Shengli

Table 4.3 Demographic Information for Each Sampled School

School	Number of teachers	Percentage of teachers holding degrees	Principal's highest degree	School	Number of teachers	Percentage of teachers holding degrees	Principal's highest degree
Xiangyang	52	80% less than Bachelor's, 20% Bachelor's	Bachelor's	Ziqiang	44	64% less than Bachelor's, 36% Bachelor's	Bachelor's
Guangming	56	89% less than Bachelor's, 11% Bachelor's	Bachelor's	Shuguang	44	63% less than Bachelor's, 32% Bachelor's, 5% Master's or equivalent	Some graduate work but less than Master's
Yuren	58	21% less than Bachelor's, 79% Bachelor's	Some graduate work but less than Master's	Xingfu	68	30% less than Bachelor's, 70% Bachelor's	Bachelor's
Xuezi	53	40% less than Bachelor's, 60% Bachelor's	Some graduate work but less than Master's	Anda	54	43% less than Bachelor's, 57% Bachelor's	Bachelor's
Changxing	72	25% less than Bachelor's, 70% Bachelor's, 5% Master's or equivalent	Some graduate work but less than Master's	Jixing	58	26% less than Bachelor's, 63% Bachelor's, 11% Master's or equivalent	Some graduate work but less than Master's
Yongfa	65	26% less than Bachelor's, 74% Bachelor's	Master's	Shengli	50	30% less than Bachelor's, 70% Bachelor's	Master's

A principal is generally designated by the local educational department. Some of them are promoted from a vice principal and others are assigned from another school. Although teachers vote, the local educational department makes the final decision. It is not required to receive training before the principal takes his/her position. However, in Changchun a principal has to receive an in-service training once every five years.

Sampling at Each School

Within each school, three steps of sampling occurred. First, non-proportional stratified random sampling was used for classroom observations, with each grade constituting a stratum. Two mathematics classrooms, two Chinese language classrooms, and one randomly selected classroom (other than mathematics or Chinese language) at each grade involved the observations, as shown in Table 4.4. Thus, 25 classroom observations, five at each grade, occurred at each school, so that a total of 300 ($25 \times 12 = 300$) classroom observations were conducted for this study.

Secondly, non-proportional stratified random sampling was used when administering teacher, parent and student questionnaires to "increase confidence in making generalizations to particular subgroups" (Patton, 2002, p243). At each school, forty students were randomly selected from grades 3-5, thirty parents were randomly selected, and twenty teachers were selected across the subjects and grades that they taught. Therefore, a total of 360 ($40 \times 12 = 480$) students, 360 ($30 \times 12 = 360$) parents, and 240 ($20 \times 12 = 240$) teachers were involved in the questionnaires. Thirdly, intensity and maximum variation sampling techniques were used for conducting the teacher interviews. Five interviewees per school, a total of 60 ($5 \times 12 = 60$) for the study, were purposefully selected from the teachers who had

been observed, based on their demonstration of diverse classroom behaviors. The sampling

strategies for this study were summarized in Table 4.5.

Table 4.4 Samples for Classroom Observations at Each School

Grade	Mathematics	Chinese language	Randomly selected subject (other than math or Chinese)	Total
1	2	2		5
2	2	2	1	5
3	2	2	1	5
4	2	2	1	5
5	2	2	1	5
Total	10	10	5	25

Table 4.5 Sampling Techniques Used in the Study

Level	Sampling Technique	Sample Size
Country (China)	Criterion sampling	One
Province (Jilin)	Typical case sampling	One
City (Changchun)	Sampling politically important cases	One
School District	Stratified purposive sampling/Typical purposive sampling	Three (two city district + one county)
School	Stratified, intensity, and typical case sampling	12 (eight urban and four rural schools)
Classroom	Non-proportional stratified random sampling	300 classroom observations (25 at each school)
Individual	Non-proportional stratified random sampling for students', parents', and teachers' questionnaires	480, 360, and 240 for students', parents', and teachers' questionnaires, respectively (40 students, 30 parents, 20 teachers at each school)
	Intensity and maximum variation sampling for teacher interviews	60 (5 interviewees at each school)

Data Collection Techniques

Instruments

Four kinds of instruments were used in this study. The first three were developed

and used in SER literature, and the last one was developed specifically for this study. These

instruments had been pilot tested in Chin, and the results are summarized in Chapter 5.

Questionnaires.   Four parallel questionnaires (see Appendix B1) have been used to

obtain data from students, teachers, principals, and parents to quantitatively assess

school-level climate factors. These questionnaires were adopted on those developed by

Brookover et al. (1979), and have been used in both the Louisiana School Effectiveness

Study (LSES) and in the Louisiana School Effectiveness and Assistance Program (SEAP)

(Teddlie, 1999). The sub-dimensions (underlying factors) of the questionnaires and the

corresponding items are summarized in Table 4.6.

Table 4.6 Numbers of Items in the Sub-dimensions of the Four School Climate
Questionnaires

Attitudinal Sub-dimensions	Number of Items			
	Student	Teacher	Principal	Parent
General Reputation of the School	Na	2 (Items 5-6)	2 (Items 5-6)	2 (Items 3-4)
Climate I: Safe and Orderly Environment	6 (Items 6-11)	6 (Items 7-12)	6 (Items 7-12)	6 (Items 5-10)
Climate II: Expectations	6 (Items 12-17)	5 (Items 13-17)	5 (Items 13-17)	6 (Items 11-15)
Climate III: Academic Norms	7 (Items 18-24)	4 (Items 18-21)	4 (Items 18-21)	6 (Items 16-21)
Climate IV: Academic Efficacy	5 (Items 25-29)	4 (Items 22-25)	4 (Items 22-25)	5 (Items 22-26)
Organization I: Collaboration	Na	4 (Items 26-29)	4 (Items 26-29)	Na
Organization II: Leadership	Na	5 (Items 30-34)	5 (Items 30-34)	6 (Items 27-32)
Quality of Instruction	6 (Items 30-35)	5 (Items 35-39)	5 (Items 35-39)	6 (Items 33-38)
Parent/School Relationship	6 (Items 36-41)	5 (Items 40-44)	5 (Items 40-44)	6 (Items 39-44)
Job Satisfaction	Na	4 (Items 45-48)	4 (Items 45-48)	Na
Staff Development	Na	5 (Items 49-53)	5 (Items 49-53)	Na
Descriptive information	5 (Items1-5)	4 (Items 1-4)	4 (Items 1-4)	2 (Items 1-2)
Total Items	41	53	53	44

Classroom Observation Systems.   The TER literature review revealed that in the

past several decades, research conducted in that area has yielded numerous classroom

observational systems. Brophy & Good (1986) reported that there were more than 100 of

these systems by 1970, and many more have been added over the past 25. Some of them have

been used to count molecular, discrete behaviors such as the Flanders Interaction Analysis

Categories (Flanders, 1970) or Stallings' Classroom Snapshot (Stallings & Kaskowitz, 1974),

while others have been used to assess discrete molar instructional and management skills

such as the Teacher Performance Assessment instrument (Capie, et al., 1980).

A major strength of the classroom methodologies used in the LSES was that both high- and low-inference data were gathered (Schaffer et al., 1994). For low-inference data gathering, a modified version of the Classroom Snapshot (CS) from the Stallings (1980) Observation System was used. For high-inference data gathering, an observation form developed for that study was used. So, with the permission of the developers of the instruments, both the low- and high-inference instruments (see Appendix B2) were used in my study to collect classroom data:

- Classroom Snapshot (see Appendix B2.1). The Classroom Snapshot provided a low-inference means for recording classroom activity, adult involvement, and student involvement. Through the CS subscales, data were gathered regarding Interactive Time-on-Task (e.g. reading aloud, making assignments, instruction/explanation, discussion/reviewing, practice drill), Non- Interactive Time-on-Task (e.g. reading silently, written assignments), and Off Task (e.g. social interaction, being disciplined) at several discrete moments during the observation period. Using this instrument, observers could record student on/off-task behaviors and instructional/organizational activities by visually "sweeping" the room at regular intervals.

- Teacher Observation Record (see Appendix B2.2). High-inference data were gathered using the Teacher Observation Record. Specifically, the Classroom Observation Instrument Worksheet were used to analyze and synthesize the data recorded into a set of summary ratings.

School Observation Checklist.   The School Observation Checklist (see Appendix B3), developed for SEAP to collect school-level data, were used in this study to guide the school level observations. It consists of 10 sections: teacher, principal involvement, assistant principal involvement, school arrival, playground, custodial staff and physical appearance of school, cafeteria, auxiliary classes, hallways and bulletin boards, and library.

Protocols for Interviewing Teachers.   The interview protocol (see Appendix B4) was specifically developed for this study to get teachers' opinions regarding their schools. It was developed in a standardized open-ended interview format (Patton, 2002, p. 344) in order to reduce interviewer effects (since several interviewers were used for this study) as well as to facilitate the organization and analysis of the data. The protocol consists of five questions: (1) How is the student discipline in your school? (2) How important is student academic achievement at your school? (3) What role does the faculty play in your school's decision making? (4) How is the teaching in your school? (5) What are the components of staff development at your school?

Table 4.7 summarized how the instruments were utilized to get data related to each of the research hypotheses and research questions. There are three reasons for adopting existing instruments. First, the research hypotheses for the study are that the processes of effective schools and effective teaching in China are similar to those described in the international school and teacher effectiveness literature. This means that the findings from this study can be compared to those in the SER literature to see which factors travel across countries and which ones are specific to China. Thus, the existing instruments that have been used in SER are the most appropriate for use in my study.

Table 4.7 Instruments Utilized for Data Collection and Data Analyses Methods
Associated with Appropriate Hypotheses and Questions

Research Hypotheses and Questions	Data Type; Discussed in Chapters	Method of Data Collection	Instrument	Data Analyses
Research Hypothesis #1: The processes of effective schools in China are similar to those described in the international school effectiveness literature	Quan Chapter 6	1. Surveys 2. Archival data	1.Questionnaires	1. Descriptive statistics 2. MANOVA
Research Question #1: What are the differences in the processes of effective schooling in China as opposed to those described in the international literature?	Primarily Qual Chapters 7-9	1. Surveys 2.School-level observations 3. Interviews 4. Archival data	1. Questionnaires 2. School Observation Checklist 3. Protocols for interviewing teachers and principals	1. Descriptive statistics 2. Analysis of predetermined and emerging themes
Research Question #2: What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?	Qual + Quan Chapters 6-9	1. Surveys 2.School-level observations 3. Interviews 4. Archival data	1. Questionnaires 2. School Observation Checklist 3. Protocols for interviewing teachers and principals	1.Descriptive statistics 2. MANOVA 3. Analysis of predetermined and emerging themes
Research Hypothesis #2: The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature	Quan Chapter 6	Classroom Observations	1. Classroom Snapshot 2. Classroom Observation Worksheet	1.Descriptive statistics 2. MANOVA
Research Question #3: What are the differences in the processes of effective teaching in China as opposed to those described in the international literature?	Primarily Qual Chapters 7-9	1. Classroom Observations 2. Teacher Interviews	1. Observation Scripting Forms 2. Teacher interview protocol	1.Descriptive statistics 2. Analysis of predetermined and emerging themes

Second, the instruments have high reliability and validity. A report by Teddlie (1999) has summarized the results from a psychometric study of the school climate questionnaires (student, teacher, principal, and parent) and of two classroom instruments: the research version of the Louisiana Components of Effective Teaching (LCET) and a simplified version of the time-on-task (TOT) instrument. For example, the reliability and validity of the attitudinal scales and subscales are very good, measured by (1) differences in the mean scores of different groups on the attitudinal instruments, (2) Cronbach's alpha coefficients for total attitudinal scales, (3) Cronbach's alpha coefficients for the attitudinal

subscales, and (4) item-subscale correlation coefficients. The Cronbach's alpha for the total

LCET scale is .96, which indicates a very high reliability for the overall instrument. The

Cronbach's alphas for the LCET subscales are in the moderate-high to high reliability. As for

the TOT Instrument, the interactive TOT, non-interactive TOT, and time off task

item-subscale correlation coefficients are in the moderate range while the total TOT

item-subscale correlation coefficients are in the high range. All these results indicate the

instruments have acceptable reliability and validity ratings.

Third, the classroom observation components of the LCET are very similar to the

indicators of traditional classroom teaching evaluation in China. Jiang (2001) presented a

five-domain classroom teaching evaluation in China. Liu and Teddlie (2005) pointed out, the

second level indicators in this teacher evaluation system are similar to many of those found in

teacher evaluation systems in the USA and the UK. They presented Table 4.8 to compare

some of the indicators from the Guangzhou Middle School system with similar indicators

from the Louisiana Components of Effective Teaching or the LCET.

Table 4.8 Comparison of Teacher Effectiveness Indicators from the Guangzhou Teacher
Evaluation System and the Louisiana Components of Effective Teaching

Guangzhou Middle School Teacher Evaluation System (PRC)	Louisiana Components of Effective Teaching (USA)
Objective is clear, and requirements are moderate	Uses techniques which develops lesson objectives
Pay attention to ability fostering	Accommodates individual differences
Give immediate feedback.	Provides timely feedback to students regarding their progress
Deliver accurate knowledge	Presents accurate subject matter
Proficiently use teaching instruments (to demonstrate experiment operation)	Uses available teaching materials and aids to achieve lesson objectives
Teaching time is appropriately allocated	Manages and/or adjusts time allotted for planned activities
Deal flexibly with the problems emerging during the teaching	Adjusts lesson where appropriate
Students have strong interests and actively respond in the classroom	Encourages students' participation

Data Collection Procedures

The six Chinese researchers, who have been involved in the data collection, consist of an assistant professor and five graduate students from Northeast Normal University. Three of the graduate students major in educational administration, while the other two major in mathematics education. Although all of the six Chinese researchers had learned statistics (equivalent to ELRC 7006) and educational research methods (equivalent to ELRC 7241), none of them had participated in a project that involved observations and interviews at schools before they worked on my project. As a result, it was necessary to give them some training.

The training was done on December 2, 2005. Before the training, they received and read the instruments and the relevant materials (e.g., the manual). The training included (1) introduction to the instruments used in the study, (2) how to have a reconnaissance meeting with a principal, (3) how to do observations, and (4) how to do interview (see Appendix C for details).

These members formed three two-person teams. For the first site visit, all the members worked together at one school in order to develop consistent and standardized implementation procedures for the study, increasing the inference quality of the results.

Data collection was done in December 2005 as well as in March 2006.[12] A reconnaissance meeting with each principal was done a week or so before the research began at each school. At the reconnaissance meeting, the researchers explained the purposes of the study to the principal in very simple and unthreatening terms. The principal and the

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[12] January and February are winter vacation months for students.

researchers then explained the purposes of the research to the faculty members so that they would carry on with their usual activities. Thus, the teachers knew why the observers would be coming to their classrooms before the observers arrived. This led to an observation representative of the typical lessons. At the reconnaissance meeting, the researcher also discussed with the principal a draft schedule. At the end of the meeting, the researcher and principal set the final schedule to minimally disturb the normal functioning of the school.

Each school was visited by a two-person team for five full school days, and the four parallel school climate questionnaires were administered during those five days. On each day, each team did at least five classroom observations, so that at least 25 classroom observations were conducted at each school. At other times of the day they did school observations, questionnaires administration, or interviews.

At each school, they did observations and questionnaires simultaneously, but teacher interviews were not done until the classroom observations had been finished. In order to increase the inference transferability, thick descriptions of each school were developed.

Data Analysis Techniques

The research hypotheses and questions required different types of data and involved different data analysis techniques, which are presented in Table 4.6. Quantitative data derived from the climate questionnaires and the classroom observations were used in the analysis of Research Hypotheses #1 and #2 respectively. First, descriptive statistics, such as means and standard deviations, were used to analyze the climate questionnaires and classroom observation data. Second, a 2 * 2 MANOVA was used to analyze the quantitative data, with school effectiveness type (effective, ineffective) and the community type (urban, rural) as the

independent variables and several dependent variables (e.g., time-on-task, school climate

scores). Since this is a contextually sensitive effective schools study, the design allows for the

testing of three effects in an analysis of variance framework: (1) the main effect for

effectiveness status of school (e.g., whether there more effective teaching behaviors ongoing

among teachers in effective schools than those in ineffective schools) (Teddlie, Kirby &

Stringfield, 1989); (2) the main effect for community type (rural, urban); and (3) the

interaction between the effectiveness status factor and the community type factor. All of these

quantitative results are presented in Chapter 6.

Primarily qualitative analyses were used in Chapters 7 and 8 to provide answers for

the first research question (What are the differences in the processes of effective schooling in

China as opposed to those described in the international literature?) and the third research

question (What are the differences in the processes of effective teaching in China as opposed

to those described in the international literature?). These qualitative analyses were initially

organized around four predetermined themes (i.e., school context, principals, teachers, and

students' school life). All twelve case studies had an organizational structure that included

these four parallel thematic areas. As the qualitative analyses continued, new themes emerged

that amplified and expanded the original predetermined themes. These new emerging themes

were summarized in the cross-case analysis sections of the case studies entitled

"Comparisons of School X and School Y", which included similarities and contrasts between

each of the pairs of schools under examination.

Two principles of qualitative data analysis were applied in these cross-case analyses

(Teddlie, forthcoming). The first is the contrast principle of qualitative data analysis. The

second principle in multiple case studies is parallelism, which refers to the delineation of similar dimensions of contrasts across case study narratives (Teddlie, forthcoming). My study has two preplanned contrasts:

- Level of effectiveness of schools – more effective schools and less effective schools could be compared and contrasted with each other.

- Community type of schools - urban effective schools and rural effective schools could be compared and contrasted with each other.

Results from all of the cross-cases analyses found in Chapters 7 and 8 were then synthesized in Chapter 9 to provide overall answers to Research Questions #1 and #3. Many of these overall themes were emergent in nature.

In order to answer the second research question (What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?), both quantitative and qualitative analyses were used. The quantitative analyses included both the descriptive statistics and 2*2 MANOVAs described above and located in Chapter 6. The main effect for community type (rural, urban) was used to describe the quantitative effect of the community type variable.

The qualitative data related to Research Question #2 were analyzed initially using predetermined themes or contrast dimensions (i.e., community/district office, leadership, faculty and instructional organization, curriculum and professional development) and presented in Chapter 9. These four contrast dimensions were based on Teddlie and Stringfield's (1993) SER study in the USA, where 16 characteristics were identified that differentiated between urban, suburban, and rural schools in terms of effectiveness. These 16

characteristics were grouped into the four dimensions noted above: (1) the dimension of

community/district office included such characteristics as resources and delivery system,

community involvement, community stability, and the extent to which a school buffers to

community influences; (2) the dimension of leadership comprised leadership style, discipline,

ties to the district office, faculty participation; (3) the dimension of faculty and instructional

organization included the likelihood to be departmentalized, faculty recruitment, present or

future expectations of students, and faculty stability; (4) the dimension of curriculum and

professional development comprised characteristics such as curriculum coverage, technology

use in classrooms, in-service opportunity, and curriculum innovation (Teddlie & Stringfield,

1993, pp. 160-161).

Of course, the information required to generate the comparisons presented in

Chapter 9 came from Chapter 7 (which contained case studies from rural areas) and Chapter

8 (which contained case studies from urban areas). As the qualitative analyses continued, new

themes emerged that amplified and expanded the original predetermined themes for the

community type variable.

Methods for Determining Inference Quality and Inference Transferability of the Results

In a mixed methods study, inference quality (which incorporates the QUAN term

internal validity and the QUAL terms trustworthiness and credibility of interpretations) and

inference transferability (which subsumes the QUAN term external validity and

generalizability as well as the QUAL term transferability) are used to determine a study's

quality (Teddlie & Tashakkori, forthcoming). With a concurrent mixed model design used in

this study, its inferences made on the basis of the results of each strand have been pulled

together to form meta-inferences at the end of the study. Thus, its interpretative rigor, especially conceptual consistency and interpretative agreement, becomes extremely important.

For the quantitative components of the study, some approaches such as a random selection of participants and the standardization of the procedures for employing the instruments were used to decrease internal validity threats. Three techniques were used to determine the trustworthiness and credibility of its qualitative results:

- triangulation technique (Patton, 2002, p.556), which involved both methods triangulation (qualitative and quantitative data collected at the same time) and triangulation of sources (the qualitative data from observations, interviews, and documents);

- member checks (Tashakkori and Teddlie, 1998, p.92). The key informants in each school were invited to check the analyses, conclusions, and interpretations; and

- peer debriefing (Tashakkori and Teddlie, 1998, p.91). One of my Chinese colleagues was invited to review the analyses and interpretations.

Thick description (Tashakkori and Teddlie, 1998, p.92) was also used to increase this study's inference transferability. This study focused on observations of schools and classrooms, and as such it involved a large number of detailed descriptions of the context. This provided evidence for the transferability of interpretations and conclusions.

CHAPTER FIVE: PILOT STUDY: INSTRUMENT DEVELOPMENT IN CHINA

The Purpose of the Pilot Study

Four kinds of instruments were used to simultaneously obtain qualitative and quantitative data for this study: the four parallel questionnaires, the classroom observation instruments, the School Observation Checklist, and the Teacher Interview Protocol. The pilot study of the instruments in China, however, did not aim to test the reliability and validity of these instruments. As described in Chapter 4, a report by Teddlie (1999) indicated that the first three kinds of instruments have adequate levels of reliability and validity. In spite of the high reliability and validity of these instruments, they were developed and used in the context of the USA. As such, their suitability in the Chinese context was an important concern. Therefore, the purposes of the pilot study of the instruments were:

- to determine the suitability of the instruments in China;

- to determine the quality of the translation (e.g., to see how well the translated questionnaires can be understood by Chinese students, teachers, principals, and parents); and

- to provide an opportunity for my Chinese researchers to practice how to use the four kinds of instruments in China.

A subjective criterion was made for determining the suitability of the instruments and the quality of the translation: if there were 15% or more of the items on the instruments found to be unsuitable in China, I would consider developing new instruments. Regarding the quality of the translation of the questionnaires, corrections would be made based on the

various types of feedback; however, if there were 15% or more of the items of a questionnaire that were misunderstood, I would consider retranslating the questionnaire.

<div align="center">Translation of the Questionnaires</div>

Options Regarding Translation Approaches

According to Harkness et al. (2003), there are two kinds of translation approaches: one is team-based translation (e.g., the committee approach), and the other is one-person translation. For the former, there are two options: parallel translations and split translations. The parallel translations approach means that after several translators make independent translations of the same questionnaire, a reconciliation meeting is held. At the meeting the translators and a translation reviewer go through the entire questionnaire to agree on a final version. The split translations approach means that the translation is divided up between translators, and that each translator translates his/her own section. At a reconciliation meeting, the translators and a translation reviewer go through the questionnaire question-by-question to agree on a final version.

For my study, I selected the committee approach and employed parallel translations in particular. Furthermore, back translation (a process of translating a document that has already been translated into a foreign language back to the original language) was employed. First, the questionnaires were translated into Chinese. Then the Chinese versions of the questionnaires were translated back into English in order to compare the original and the back-translated questionnaires, improving the reliability and validity of the instruments in the two different languages.

People Needed to Translate and Review Translations

According to Harkness et al. (2003), three different sets of people are required to produce the final version of a translated questionnaire: translators, translation reviewers, and translation adjudicators. They also proposed qualifications for the three kinds of people: Translators should be bilinguals and understand empirical social science research; reviewers need to have at least as good translation skills as the translators and be familiar with questionnaire design principles; and the adjudicator must understand the research subject, know about the survey design, and be proficient in the languages involved.

Since back translation is needed in this study, four people were involved in the instrument translation: Mei, Wei, Yun and me. Mei and Wei were the translators, Yun did the back translation, and I was the reviewer and adjudicator. Mei was an assistant professor at the college of education, Northeast Normal University, China. She got her Master's Degree in the program of educational evaluation program in July 2003 and was pursuing her Ph. D. in the same field. Regarding English, she had gained the CET[13]-6 certificate. Additionally, she had translated some academic articles and documents from English into Chinese (e.g., some materials on value-added models, and *Inspecting Schools Framework for Inspecting Schools,* developed by the Office for Standard in Education (London) and effective from September 2003).

Wei was a second-year graduate student who was pursuing her Master's Degree in the program of educational administration at the college of education, Northeast Normal University, China. She had taken courses such as Educational Research Methods, educational

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[13] CET is an abbreviation of Certificate of English Test, which is a nationwide authoritative English skill test in China.

statistics, and educational evaluation. Regarding English, she not only had gained the CET-6

certificate but also took the ESEC (Educational Services Exchange with China) class while

she was an undergraduate at Anhui University of Finance and Trade. In the ESEC class, all

the courses were taught by American teachers. During that period of time, she translated

some papers on international trade for the course assignments. Yun was an English teacher at

a middle school in Daqing, Heilongjiang Province. She had taught English there for five

years.

Translation Procedures

- May 28, I got permission from Dr. Teddlie to translate the questionnaires into
  Chinese and emailed Mei and Wei the instruments as well as a translation
  guideline (see Appendix D);

- May 29, Mei and Wei started translating the instruments;

- June 20, I received the translated questionnaires from Mei and Wei (version 1);

- June 21-30, I reviewed, compared and revised the translations, and got a second
  version of the questionnaires;

- July 1, I emailed the second version of the questionnaires to Yun for back
  translation;

- July 16-31, I received the back-translated questionnaires. I compared the
  back-translated questionnaires to the original ones (the second version) and
  determined the final version of the instruments. After the comparisons, I found (1)
  some back translated items were expressed by exactly the same words or
  sentences as those in the original ones; (2) most kept the same meanings but use

different expressions, such as questions 8, 33, 36, 38, 41 in the *Student*

Questionnaire, or questions 6, 8, 23, 36, 41in the *Teacher Questionnaire*; and (3)

a few used different expressions and have somewhat different meanings from the

original ones, such as questions 12 and 21 in the *Student Questionnaire*, or

questions 3 and 30 in the *Teacher Questionnaire*. For the first two cases, the

translations were accepted. For the third case, I reviewed the translations

(version1 and 2) and the back-translated questionnaires again, made some

changes, and got the final versions;

- August, 22, I submitted the final-version instruments to Dr. Teddlie for

  suggestions;

- September, 2, I emailed the revised final-version instruments to the Chinese

  researchers for the pilot study.

Procedures of Pilot Study

Sampling

According to the requirement for the pilot study, typical case sampling technique

was used to select one elementary school, Yuhong Elementary School. The school consists of

1,074students, 72 teachers, and 24 classrooms. It is a typical urban school in Changchun.

Within that school, the sampling techniques are summarized in Table 5.1.

- random sampling technique was used to select 15 teachers for the teacher

  questionnaires;

- non-proportional stratified sampling technique was used to select 21 students and

  their parents for questionnaires, and three teachers for classroom observations and

interviews. First, three classes were sampled, one at each grade from the 3rd to the

5th. Second, within each class, (1) seven students were randomly selected for the

student questionnaires, and their parents completed the parents questionnaires; and

(2) one teacher, who teaches mathematics or Chinese language, was selected for

classroom observations and interviews.

Table 5.1 Sampling Techniques used for the Pilot Study

Random Sampling		15 teachers for questionnaires
Stratified Sampling	One Class from the 3rd Grade	Seven students and seven parents for questionnaires One teacher for observations and interviews
	One Class from the 4th Grade	Seven students and seven parents for questionnaires One teacher for observations and interviews
	One Class from the 5th Grade	Seven students and seven parents for questionnaires One teacher for observations and interviews
Total	Three Classes	21 students and 21 parents for questionnaires Three teachers for observations and interviews 15 teachers for questionnaires

Conduct of Site Visit

The pilot study was conducted on the week of September 12, 2005. Mei and Wei

spent one day and a half in the school. On the first day, they observed three classrooms,

interviewed three teachers (each about 45 minutes), and administered the student and the

teacher questionnaires. They also gave 21 copies of the parents' questionnaires to the students

who had completed the student questionnaires and told the students to bring their parents'

questionnaires back the next day. On the second day, they interviewed the principal about

half an hour, administered the principal questionnaire, and collected 15 copies of the parents'

questionnaires.

Results of Pilot Study

Regarding the Questionnaires

There was no feedback from the principal and the parents in terms of the quality of the questionnaires; however, some feedback did come from the teachers and the students.

Teacher Questionnaire.   Three problems were found, two of which (Questions 4 and 21) were not suitable in China while the other one (Question 17) was a translation problem:

- Regarding Question 4 (How many days have you been absent, excluding professional days, so far this school year?), there are five choices: (1) 1 or 2 days, (2) 3 or 4 days, (3) 5 or 6 days, (4) 7 or 8 days, and (5) 9 or more days. Some teachers said they have not been absent so far this school year, so another choice "Not absent" may be added.

- Regarding Question 21 (How many students in your class will try hard to do better school work than their classmates?), "your class" could be changed into "the class (es) you teach", since one teacher teaches more than one class in China. For example, a mathematics teacher usually teaches two to three classes of the same grade.

- Regarding Question 17 (How would you rate the academic ability of your school's students compared to other schools?), the word "your" was initially translated into "您们" (plural form). One teacher suggested that it should be translated into singular form "您".[14]

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[14] The word "your" may refer to plurality as well as singularity in Chinese.

Student Questionnaire.   Four problems were found, two of which (Questions 17 and 32) were not suitable in China while the other two (Questions 14, 22) had a translation problem:

- Regarding Question 17 (Do your parents say you can do school work better, the same or worse than your friends?), there are two problems. First, it is not clear what "your friends" refer to; Second, the "better, the same or worse" indicates three choices, but in fact the question has five choices. So, this question was rewritten as: How do your parents say you can do school work compared to your classmates?

- Regarding Question 32 (My teachers teach me things that I need to know), it is not clear what kinds of "things", knowledge from textbooks, or some general knowledge?

- Regarding Question 14 (Think of the teacher you like the best, how far does this teacher believe you will go in school?), "you will go in school" was initially translated into "能够达到哪个阶段的学业." Since several students had difficulty understanding it, I retranslated it into "将在学业上达到哪个阶段."

- Regarding Question 22 (How often do teachers in your school try to help students who do badly on their school work?), the third graders could not understand the Chinese phrase "频繁" (how often). After I talked to a Chinese language teacher at an elementary school, I used another word, which can be understood by all third graders and beyond.

Regarding the Other Instruments

The Classroom Observation Instrument Worksheet, used to analyze and synthesize the data recorded into a set of summary ratings, was very suitable in the Chinese context. Nevertheless, the two observers had difficulty using the Classroom Snapshot to record student on/off-task behaviors and instructional/organizational activities by visually sweeping the room at regular intervals. After the discussion with Dr. Teddlie, we thought that the two observers did not really understand what "visually sweeping" meant. This made me realize how important to train the six researchers before they actually started data collection for this study. For the school-level checklist, the pilot study revealed that there were only a few items not suitable in China (e,g., cafeteria, since in most public schools in China, students have lunch in their own classrooms).

In summary, the pilot study was a success since its purposes were attained. First, the suitability of the instruments and the quality of the translation were met the predetermined criteria: the instruments were basically suitable in China, and there were no big problems in terms of questionnaire translation. Second, the two Chinese researchers learned how to utilize these instruments during the pilot study.

CHAPTER SIX: QUANTITATIVE RESULTS

As stated earlier, several 2 X 2 MANOVAs, with school effectiveness type (effective, ineffective) and community type (urban, rural) as the independent variables and several dependent variables (e.g., time-on-task, school climate scores), have been conducted to analyze the quantitative data. These data were collected from the school climate questionnaires (teacher, student, and parent versions) and the classroom observation instruments (LCET and TOT). This chapter first presents the quantitative results from the analysis of the questionnaire data, followed by the quantitative results from the classroom observations.

Quantitative Analyses of Questionnaires

Several MANOVAs for teacher, student, and parent questionnaires,[15] with school effectiveness status and community type as independent variables, were conducted to test and answer the following research hypothesis and research question:

Research Hypothesis #1: The processes of effective schools in China are similar to those described in the international school effectiveness literature (e.g., Reynolds & Teddlie, 2000). These processes include effective leadership, effective teaching, a pervasive focus on learning, a positive school culture, high expectations for students and staffs, staff development, etc.

Research Question #2: What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?

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[15] Each of the school climate dimensions were composite scores composed of several items from the climate questionnaires. See Appendix E for the codesheets describing how the composite scores were computed.

Results from the Analysis of the Teacher Questionnaires

A MANOVA was conducted, with school effectiveness status and community type as independent variables and the 11 school climate dimensions (school reputation, safe and orderly environment, expectations, academic norms, academic efficacy, collaboration, leadership, quality of instruction, parent/school relationship, job satisfaction, and staff development) as dependent variables. The results are summarized in the following section.

Descriptive Statistics for Dimensions on the Teacher Questionnaires.   The following lists the means and standard deviations for the 11 teacher dimensions for each pair of schools:

Table 6.1 Means and Standard Deviations for Dimensions on the
Teacher Questionnaires for Pairs of Schools

Dimensions		1st pair		2nd pair		3rd pair		4th pair		5th pair		6th pair	
		+	-	+	-	+	-	+	-	+	-	+	-
School reputation	M	1.75	2.16	1.57	2.18	2.02	2.34	1.69	2.30	1.71	2.18	1.50	2.21
	SD	.60	.50	.52	.69	.44	.62	.66	.68	.61	.49	.41	.67
Safe and orderly environment	M	1.69	1.73	1.22	1.47	1.63	1.78	1.30	1.61	1.55	1.32	1.52	1.43
	SD	.45	.49	.26	.38	.41	.76	.46	.46	.58	.38	.42	.39
Expectations	M	2.41	2.38	2.16	2.27	1.72	1.83	1.61	1.98	1.51	2.24	1.52	2.26
	SD	.57	.65	.61	.70	.32	.60	.43	.36	.45	.38	.27	.43
Academic norms	M	1.95	1.92	1.90	2.19	2.08	2.11	1.65	1.86	2.08	2.58	2.08	2.35
	SD	.64	.64	.50	.57	.56	.86	.60	.52	.61	.42	.83	.61
Academic efficacy	M	2.01	2.01	1.81	1.99	1.83	1.91	1.74	1.85	1.78	1.88	1.59	1.87
	SD	.59	.42	.69	.65	.57	.70	.61	.38	.53	.42	.40	.52
Collaboration	M	1.88	1.93	1.65	1.89	1.75	1.91	1.31	1.56	1.71	1.50	1.59	1.74
	SD	.35	.70	.60	.68	.53	.81	.43	.57	.77	.54	.46	.50
Leadership	M	1.98	2.12	1.75	1.87	1.82	1.85	1.54	1.66	1.79	1.58	1.59	1.73
	SD	.44	.40	.39	.38	.65	.77	.79	.55	.63	.40	.43	.42
Quality of instruction	M	1.84	1.86	1.40	1.88	1.65	1.85	1.42	1.51	1.51	1.51	1.47	1.52
	SD	.59	.71	.40	.60	.52	.79	.64	.55	.57	.53	.45	.40
Parent/school relationship	M	2.20	2.23	1.85	2.22	2.16	2.34	1.64	1.77	1.75	2.53	1.65	2.85
	SD	.69	.56	.45	.63	.81	1.06	.59	.85	.56	.76	.39	.87
Job satisfaction	M	1.63	1.74	1.73	1.84	1.86	1.97	1.49	1.81	1.88	1.94	1.72	1.83
	SD	.36	.43	.53	.76	.50	.82	.91	.64	.81	.53	.53	.52
Staff development	M	1.74	1.67	1.54	1.98	1.76	1.81	1.49	1.70	1.59	1.55	1.61	1.48
	SD	.39	.58	.39	.81	.70	.69	.88	.56	.72	.90	.49	.38

Note. 1. $\underline{N}$ = 19 for schools 2, 4, 6, 9, 11, and 12; $\underline{n}$ = 20 for schools 1, 5, 8, and 10; $\underline{n}$ = 21 for school 7; $\underline{n}$ = 22 for school 3.
2. The symbol "+" refers to more effective school while "-" refers to less effective school.
3. The first two pairs of schools are in rural areas, the middle two pairs of schools are in the city in District One, and the last two   pairs of schools are in the city in District Two. The sequence of schools listed here is consistent with that of the case studies presented in Chapters 7-9.
4. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.2 presents the overall means and standard deviations for more effective and less effective schools, and Table 6.3 presents the overall means and standard deviations for urban and rural schools.

Table 6.2 Overall Means and Standard Deviations for Dimensions on the
Teacher Questionnaires for More Effective and Less Effective schools

Dimensions	School Effectiveness Status	Mean	SD	N
School reputation	More effective schools	1.71	.56	121
	Less effective schools	2.23	.61	116
	Total	1.96	.64	237
Safe and orderly environment	More effective schools	1.48	.46	121
	Less effective schools	1.55	.51	116
	Total	1.52	.48	237
Expectations	More effective schools	1.83	.57	121
	Less effective schools	2.16	.56	116
	Total	1.99	.58	237
Academic norms	More effective schools	1.95	.63	121
	Less effective schools	2.17	.65	116
	Total	2.06	.65	237
Academic efficacy	More effective schools	1.79	.58	121
	Less effective schools	1.92	.52	116
	Total	1.85	.55	237
Collaboration	More effective schools	1.64	.56	121
	Less effective schools	1.75	.65	116
	Total	1.70	.61	237
Leadership	More effective schools	1.74	.58	121
	Less effective schools	1.80	.53	116
	Total	1.77	.55	237
Quality of instruction	More effective schools	1.55	.54	121
	Less effective schools	1.69	.62	116
	Total	1.61	.59	237
Parent/school relationship	More effective schools	1.87	.63	121
	Less effective schools	2.32	.86	116
	Total	2.09	.78	237
Job satisfaction	More effective schools	1.71	.64	121
	Less effective schools	1.86	.62	116
	Total	1.78	.63	237
Staff development	More effective schools	1.62	.62	121
	Less effective schools	1.70	.62	116
	Total	1.66	.62	237

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.3 Overall Means and Standard Deviations for Dimensions on the
Teacher Questionnaires for Urban and Rural Schools

Dimensions	Community Type	Mean	SD	N
School reputation	Urban schools	1.99	.64	157
	Rural schools	1.90	.63	80
	Total	1.96	.64	237
Safe and orderly environment	Urban schools	1.51	.51	157
	Rural schools	1.52	.44	80
	Total	1.52	.48	237
Expectations	Urban schools	1.83	.49	157
	Rural schools	2.30	.63	80
	Total	1.99	.58	237
Academic norms	Urban schools	2.09	.68	157
	Rural schools	1.99	.59	80
	Total	2.06	.65	237
Academic efficacy	Urban schools	1.80	.52	157
	Rural schools	1.95	.60	80
	Total	1.85	.55	237
Collaboration	Urban schools	1.63	.61	157
	Rural schools	1.83	.60	80
	Total	1.70	.61	237
Leadership	More effective schools	1.69	.60	157
	Less effective schools	1.92	.42	80
	Total	1.77	.55	237
Quality of instruction	Urban schools	1.55	.57	157
	Rural schools	1.73	.60	80
	Total	1.61	.59	237
Parent/school relationship	Urban schools	2.08	.86	157
	Rural schools	2.12	.60	80
	Total	2.09	.78	237
Job satisfaction	Urban schools	1.81	.68	157
	Rural schools	1.73	.53	80
	Total	1.78	.63	237
Staff development	Urban schools	1.62	.64	157
	Rural schools	1.72	.58	80
	Total	1.66	.62	237

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

MANOVA Results for Dimensions on the Teacher Questionnaires. The
MANOVA results from analysis of the teacher questionnaires showed (1) a significant
difference between more effective and less effective schools across the 11 school
effectiveness process variables (Pillai's Trace = .200, $\underline{F}(11,223) = 5.07$, $\underline{p} < .001$), (2) a
significant difference between urban and rural schools (Pillai's Trace = .321, $\underline{F}(11,223) =$
9.61, $\underline{p} < .001$), and (3) no interaction between effectiveness status and community type
(Pillai's Trace = .074, $\underline{F}(11,223) = 1.67$, $\underline{p} = .096$).

Since the MANOVA main effects for effectiveness status and community type were significant, the univariate effects were further examined to determine which individual items had significant effects. The univariate F values for effectiveness and community type as well as the corresponding p values are summarized in Table 6.4.

Table 6.4 Univariate Tests for Dimensions from the Teacher Questionnaires

Independent Variables	Dependent Variables	df	F	p
Effectiveness status	School reputation	1, 233	41.72	.001
	Safe and orderly environment	1, 233	2.00	.159
	Expectations	1, 233	15.02	.001
	Academic norms	1, 233	4.94	.027
	Academic efficacy	1, 233	2.50	.115
	Collaboration	1, 233	2.24	.136
	Leadership	1, 233	1.13	.289
	Quality of instruction	1, 233	4.76	.030
	Parent/school relationship	1, 233	14.35	.001
	Job satisfaction	1, 233	2.28	.132
	Staff development	1, 233	1.61	.206
Community type	School reputation	1, 233	1.05	.307
	Safe and orderly environment	1, 233	.01	.908
	Expectations	1, 233	45.30	.001
	Academic norms	1, 233	1.40	.238
	Academic efficacy	1, 233	3.80	.052
	Collaboration	1, 233	6.26	.013
	Leadership	1, 233	9.894	.002
	Quality of instruction	1, 233	5.59	.019
	Parent/school relationship	1, 233	.134	.714
	Job satisfaction	1, 233	.723	.396
	Staff development	1,233	1.532	.217

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

The examination of the univariate effects indicated that there was a significant difference for effectiveness status at the $p < .05$ level for the dimensions of school reputation, expectations, academic norms, quality of instruction, and parent/school relationship. For community type, four dimensions (expectations, collaboration, leadership, and quality of instruction) were significant.

Results from the Analysis of the Student Questionnaires

A MANOVA was conducted, with school effectiveness status and community type as independent variables and the six school climate dimensions (safe and orderly environment, expectations, academic norms, academic efficacy, quality of instruction, and parent/school relationship) as dependent variables. The results are summarized in the following section:

Descriptive Statistic for Dimensions on the Student Questionnaire.   Table 6.5 lists the means and standard deviations of the above six dimensions for each pair of schools, Table 6.6 presents the overall means and standard deviations for more effective and less effective schools, and Table 6.7 presents the overall means and standard deviations for urban and rural schools.

Table 6.5 Means and Standard Deviations for Dimensions on the
Student Questionnaires for Pairs of Schools

Dimensions		1st pair		2nd pair		3rd pair		4th pair		5th pair		6th pair	
		+	-	+	-	+	-	+	-	+	-	+	-
Safe and orderly environment	M	1.37	1.51	1.55	1.62	1.66	1.67	1.28	1.66	1.12	1.53	1.47	1.74
	SD	.32	.49	.39	.48	.49	.50	.38	.52	.23	.45	.40	.47
Expectations	M	1.48	1.81	1.91	1.71	1.55	1.57	1.50	1.40	1.27	1.48	1.70	1.86
	SD	.35	.51	.50	.45	.44	.28	.39	.33	.38	.38	.62	.63
Academic norms	M	1.24	1.58	1.73	1.56	1.64	1.64	1.47	1.61	1.19	1.51	1.55	1.74
	SD	.30	.41	.33	.50	.34	.31	.48	.56	.28	.46	.38	.53
Academic efficacy	M	1.25	1.59	1.35	1.30	1.31	1.24	1.30	1.35	1.25	1.42	1.49	1.86
	SD	.44	.67	.33	.33	.30	.41	.48	.50	.42	.46	.60	.77
Quality of instruction	M	1.13	1.57	1.27	1.52	1.37	1.26	1.27	1.17	1.02	1.36	1.28	1.58
	SD	.20	.56	.29	.54	.33	.33	.41	.28	.07	.38	.32	.51
Parent/school relationship	M	1.26	1.53	2.05	1.54	1.52	1.45	1.35	1.38	1.11	1.56	1.71	1.76
	SD	.40	.54	.34	.43	.43	.36	.38	.32	.22	.46	.58	.63

Note. 1. $\underline{N}$ = 40 for each school.
2. The symbol "+" refers to more effective school while "-" refers to less effective school.
3. The first two pairs of schools are in rural areas, the middle two pairs of schools are in the city District One, and the last two pairs of schools are in the city District Two. The sequence of schools listed here is consistent with that of the case studies presented in Chapters 7-9.
4. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.6 Overall Means and Standard Deviations for Dimensions on the Student Questionnaires for More Effective and Less Effective Schools

Dimensions	School Effectiveness Status	Mean	SD	N
Safe and orderly environment	More effective schools	1.41	.41	240
	Less effective schools	1.62	.49	240
	Total	1.51	.46	480
Expectations	More effective schools	1.57	.49	240
	Less effective schools	1.64	.47	240
	Total	1.60	.48	480
Academic norms	More effective schools	1.47	.41	240
	Less effective schools	1.61	.47	240
	Total	1.54	.44	480
Academic efficacy	More effective schools	1.32	.44	240
	Less effective schools	1.46	.58	240
	Total	1.39	.52	480
Quality of instruction	More effective schools	1.22	.31	240
	Less effective schools	1.41	.47	240
	Total	1.32	.41	480
Parent/school relationship	More effective schools	1.50	.51	240
	Less effective schools	1.54	.48	240
	Total	1.52	.49	480

Note. $\underline{N}$ = 40 for each school. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.7 Overall Means and Standard Deviations for Dimensions on the Student Questionnaires for Urban and Rural Schools

Dimensions	school effectiveness status	Mean	SD	N
Safe and orderly environment	Urban schools	1.52	.48	320
	Rural schools	1.51	.43	160
	Total	1.51	.46	480
Expectations	Urban schools	1.54	.47	320
	Rural schools	1.72	.48	160
	Total	1.60	.48	480
Academic norms	Urban schools	1.55	.45	320
	Rural schools	1.52	.43	160
	Total	1.54	.44	480
Academic efficacy	Urban schools	1.40	.54	320
	Rural schools	1.37	.48	160
	Total	1.39	.52	480
Quality of instruction	Urban schools	1.29	.38	320
	Rural schools	1.37	.46	160
	Total	1.32	.41	480
Parent/school relationship	Urban schools	1.48	.48	320
	Rural schools	1.60	.51	160
	Total	1.52	.49	480

Note. $\underline{N}$ = 40 for each school. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

MANOVA Results for Dimensions on the Student Questionnaires.   A MANOVA was run, with effectiveness status and community type as independent variables and the six dimensions as dependent variables. The results showed (1) a significant difference between more effective and less effective schools across the six school effectiveness process variables (Pillai's Trace = .117, $\underline{F}$(6,471) = 10.41, $\underline{p}$ ‹ .001), (2) a significant difference between urban and rural schools across the six school effectiveness process variables (Pillai's Trace = .057, $\underline{F}$(6,471) = 4.73, $\underline{p}$ ‹. 001), and (3) a significant interaction between effectiveness status and community type (Pillai's Trace = .071, $\underline{F}$(6,471) = 5.97, $\underline{p}$ ‹ .001).

Univariate tests were examined to determine which dependent variables had significant effects. The $\underline{F}$ values as well as the corresponding $\underline{p}$ values are summarized in Table 6.8.

Table 6.8 Univariate Tests for Dimensions from the Student Questionnaires

Independent Variables	Dependent Variables	$\underline{df}$	$\underline{F}$	$\underline{p}$
Effectiveness status	Safe and orderly environment	1, 476	18.56	.001
	Expectations	1, 476	2.37	.125
	Academic norms	1, 476	8.53	.004
	Academic efficacy	1, 476	7.85	.005
	Quality of instruction	1, 476	36.11	.001
	Parent/school relationship	1, 476	.005	.942
Community type	Safe and orderly environment	1, 476	.007	.935
	Expectations	1, 476	16.70	.001
	Academic norms	1, 476	.19	.666
	Academic efficacy	1, 476	.39	.532
	Quality of instruction	1, 476	4.94	.027
	Parent/school relationship	1, 476	5.83	.016
Effectiveness status*Community type	Safe and orderly environment	1, 476	3.69	.055
	Expectations	1, 476	.008	.930
	Academic norms	1, 476	.85	.357
	Academic efficacy	1, 476	.02	.881
	Quality of instruction	1, 476	9.95	.002
	Parent/school relationship	1, 476	6.51	.011

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Examination of the univariate effects table revealed that there was a significant difference for effectiveness status at the p<.05 level on the dimensions of safe and orderly environment, academic norms, academic efficacy, and quality of instruction. For community type, three dimensions were significant (expectations, quality of instruction, and parent/school relationship). There was a significant interaction effect for two dimensions: quality of instruction, and parent/school relationship. A test of simple effects was conducted to examine the interaction effect further, and the results are presented in Table 6.9 and Table 6.10.

Table 6.9 Descriptive Statistics for the Interaction Effect on the
Dimensions of Quality of Instruction and Parent/School Relationship

	Quality of instruction			Parent/School Relationship		
	Mean	SD	N	Mean	SD	N
Urban More Effective Schools	1.23	.33	160	1.42	.47	160
Urban Less Effective Schools	1.34	.41	160	1.54	.48	160
Rural More Effective Schools	1.20	.26	80	1.66	.54	80
Rural Less Effective Schools	1.55	.55	80	1.53	.48	80
Total	1.32	.41	480	1.52	.49	480

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.10 Test of Simple Effects for the Significant Interactions on the
Dimensions of Quality of Instruction and Parent/School Relationship

		Quality of Instruction		Parent/School Relationship	
		Mean Difference	p	Mean Difference	p
Urban More Effective Schools	Rural More Effective Schools	.03	.999	-.24	.003
	Rural Less Effective Schools	-.32	.001	-.12	.590
	Urban Less Effective Schools	-.11	.083	-.11	.194
Urban Less Effective Schools	Rural More Effective Schools	.14	.046	-.12	.475
	Rural Less Effective Schools	-.21	.001	.01	.999
Rural More Effective Schools	Rural Less Effective Schools	-.35	.001	.13	.652

Note. The level of significance for the test is p < .05.

The tests of simple effects presented in Table 6.10 indicate that the patterns of results for the two significant interactions were different from one another. The means presented in Table 6.9 for quality of instruction suggest that the impact of effectiveness status is greater in rural schools (mean of 1.20 versus 1.55, simple effect < .001) than in urban schools (mean of 1.23 versus 1.34, simple effect < .083). On the other hand, the means presented in Table 6.9 for parent/school relationships indicates that students in more effective urban schools perceived the relationship more positively (mean of 1.42) than students in less effective urban schools (mean of 1.54), while the opposite was true for rural schools where the students from less effective schools perceived the relationship more positive (mean of 1.53) than those from more effective schools (mean of 1.66). The only significant simple effect for the parent/school relationships variable was between urban and rural more effective schools (means of 1.42 and 1.66 respectively, simple effect < .003). This indicates that the effects of effectiveness differ in urban and rural schools.

Results from the Analysis of the Parent Questionnaires

A MANOVA was conducted, with effectiveness status and community type as independent variables and the seven dimensions (school reputation, safe and orderly environment, expectations, academic norms, leadership, quality of instruction, parent/school relationship) as dependent variables. The results are summarized in the following section:

Descriptive Statistics for Dimensions on the Parent Questionnaire. Table 6.11 lists the means and standard deviations for the seven parent dimensions for each pair of schools, Table 6.12 presents the overall means and standard deviations for more effective and less

effective schools, and Table 6.13 presents the overall means and standard deviations for

urban and rural schools.

Table 6.11 Means and Standard Deviations for Dimensions on the
Parent Questionnaires for Pairs of Schools

Dimensions		1st pair		2nd pair		3rd pair		4th pair		5th pair		6th pair	
		+	-	+	-	+	-	+	-	+	-	+	-
School reputation	M	2.07	2.10	1.72	2.12	1.78	2.07	1.90	2.25	1.73	1.98	1.75	2.06
	SD	.39	.53	.41	.54	.54	.52	.76	.67	.64	.59	.52	.64
Safe and orderly environment	M	1.87	1.93	1.68	1.81	1.95	1.95	1.71	1.99	1.64	1.69	1.71	1.90
	SD	.21	.29	.32	.58	.41	.46	.58	.49	.51	.46	.48	.57
Expectations	M	2.10	2.21	2.06	2.04	1.94	1.90	1.87	2.06	1.72	2.02	1.91	2.22
	SD	.27	.58	.42	.51	.36	.36	.51	.42	.44	.50	.31	.43
Academic norms	M	1.87	1.94	1.54	1.63	1.93	1.95	1.83	1.89	1.49	1.78	1.76	1.84
	SD	.27	.35	.38	.49	.33	.40	.54	.61	.47	.62	.22	.50
Leadership	M	2.01	2.07	2.03	2.09	2.02	2.26	1.86	2.32	1.78	1.88	1.86	2.02
	SD	.30	.45	.28	.45	.53	.61	.65	.60	.60	.64	.48	.61
Quality of instruction	M	1.79	1.92	1.61	1.88	1.77	1.92	1.75	1.98	1.60	1.70	1.67	1.85
	SD	.31	.51	.38	.48	.50	.63	.61	.68	.56	.51	.42	.61
Parent/school relationship	M	1.81	1.91	1.64	1.98	1.88	2.01	1.83	2.12	1.73	1.77	1.86	1.94
	SD	.29	.35	.46	.50	.49	.45	.46	.57	.53	.50	.41	.57

Note. 1. $\underline{N}$ = 30 for schools 1-5, and 7-8; $\underline{n}$ = 28 for schools 6 and 11; $\underline{n}$ = 27 for school 12; $\underline{n}$ = 26 for school 9; $\underline{n}$ = 29 for school 10.
2. The symbol "+" refers to more effective school while "-" refers to less effective school.
3. The first two pairs of schools are in rural areas, the middle two pairs of schools are in the city District One, and the last two pairs   of schools are in the city District Two. The sequence of schools listed here is consistent with that of the case studies presented in Chapters 7-9.
4. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.12 Overall Means and Standard Deviations for Dimensions on the
Parent Questionnaire for More Effective and Less Effective Schools

Dimensions	School Effectiveness Status	Mean	SD	N
School reputation	More effective schools	1.83	.56	174
	Less effective schools	2.10	.58	174
	Total	1.96	.59	348
Safe and orderly environment	More effective schools	1.76	.44	174
	Less effective schools	1.88	.49	174
	Total	1.82	.47	348
Expectations	More effective schools	1.94	.41	174
	Less effective schools	2.08	.48	174
	Total	2.01	.45	348
Academic norms	More effective schools	1.74	.42	174
	Less effective schools	1.84	.51	174
	Total	1.79	.47	348
Leadership	More effective schools	1.93	.49	174
	Less effective schools	2.11	.57	174
	Total	2.02	.54	348
Quality of instruction	More effective schools	1.70	.47	174
	Less effective schools	1.88	.57	174
	Total	1.79	.53	348
Parent/school relationship	More effective schools	1.79	.45	174
	Less effective schools	1.96	.50	174
	Total	1.87	.48	348

Note.   A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

Table 6.13 Overall Means and Standard Deviations for Dimensions on the
Parent Questionnaires for Urban and Rural Schools

Dimensions	Community Type	Mean	SD	N
School reputation	Urban schools	1.94	.63	228
	Rural schools	2.00	.49	120
	Total	1.96	.59	348
Safe and orderly environment	Urban schools	1.82	.51	228
	Rural schools	1.82	.38	120
	Total	1.82	.47	348
Expectations	Urban schools	1.96	.44	228
	Rural schools	2.10	.46	120
	Total	2.01	.45	348
Academic norms	Urban schools	1.81	.49	228
	Rural schools	1.75	.41	120
	Total	1.79	.47	348
Leadership	Urban schools	2.00	.61	228
	Rural schools	2.05	.37	120
	Total	2.02	.54	348
Quality of instruction	Urban schools	1.78	.58	228
	Rural schools	1.80	.44	120
	Total	1.79	.53	348
Parent/school relationship	Urban schools	1.90	.51	228
	Rural schools	1.83	.42	120
	Total	1.87	.48	348

Note. A smaller score indicates a more positive response. The range of scores is 1-5 for each dimension.

MANOVA Results for Dimensions on the Parent Questionnaire.   A MANOVA was run, with effectiveness status and community type as independent variables and the seven parent dimensions as dependent variables. The results showed (1) a significant difference between more effective and less effective schools across the seven school effectiveness process variables (Pillai's Trace = .071, $\underline{F}$(7,338) = 3.71, $\underline{p}$ < .001), (2) a significant difference between urban and rural schools across the seven school effectiveness process variables (Pillai's Trace = .056, $\underline{F}$(7,338) = 2.87, $\underline{p}$ < .006), and (3) no interaction between effectiveness status and community type (Pillai's Trace = .024, $\underline{F}$(7,338) = 1.17, $\underline{p}$ < .321). The univariate effects were examined to determine which individual dimensions had significant effects. The univariate $\underline{F}$ values for effectiveness status and community type, as well as the corresponding $\underline{p}$ values, are summarized in Table 6.14.

Table 6.14 Univariate Tests for Dimensions from the Parent Questionnaires

Independent Variables	Dependent Variables	$\underline{df}$	$\underline{F}$	$\underline{p}$
Effectiveness	School reputation	1, 344	15.97	.001
	Safe and orderly environment	1, 344	4.31	.039
	Expectations	1, 344	5.43	.020
	Academic norms	1, 344	3.25	.072
	Leadership	1, 344	5.96	.015
	Quality of instruction	1, 344	9.53	.002
	Parent/school relationship	1, 344	11.28	.001
Community type	School reputation	1, 344	.78	.377
	Safe and orderly environment	1, 344	.01	.992
	Expectations	1, 344	8.73	.003
	Academic norms	1, 344	1.51	.220
	Leadership	1, 344	.76	.384
	Quality of instruction	1, 344	.09	.760
	Parent/school relationship	1, 344	1.37	.242

The examination of the univariate effects indicated that there was a significant difference for effectiveness status at the $\underline{p}$ < .05 level for the dimensions of school reputation, safe and orderly environment, expectations, leadership, quality of instruction, and

parent/school relationship. For community type, only one dimension (expectations) was significant.

Quantitative Analyses of Classroom Teaching

This section reports the quantitative results from the data collected on the classroom observation instruments (LCET and TOT). A MANOVA, with effectiveness status and community type as independent variables and the nine dimensions of classroom teaching (conductive environment, maximization of instruction time, management of learner behaviors, effective delivery of instruction, presentation of appropriate content, student involvement, assessment of student progress, time-on-task, and interactive time-on-task as dependent variables,[16] was conducted to test the following research hypothesis:

Research Hypothesis #2: The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature (e.g., Campbell, Kyriakides, Muijs, & Robinson, 2004). These processes include maximizing classtime, exhibiting best teaching practices, adapting practice to particulars of classroom, etc. Descriptive Statistics for Dimensions of Classroom Teaching

Table 6.15 lists the means and standard deviations for the nine dimensions of classroom teaching for each pair of schools, Table 6.16 presents the overall means and standard deviations for more effective and less effective schools, and Table 6.17 presents the overall means and standard deviations for urban and rural schools.

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[16] Each of the LCET dimensions were composite scores composed of several items from the observation instrument. See Appendix E for the codesheets describing how the composite scores were computed.

Table 6.15 Means and Standard Deviations for Dimensions of
Classroom Teaching for Pairs of Schools

Dimensions		1st pair		2nd		3rd		4th		5th		6th	
		+	-	+	-	+	-	+	-	+	-	+	-
1	M	2.60	2.44	2.74	2.72	3.12	2.92	3.24	2.62	2.76	2.75	3.00	2.58
	SD	.41	.42	.36	.48	.48	.53	.58	.62	.44	.43	.46	.43
2	M	2.74	2.58	2.64	2.30	2.76	2.72	2.96	2.72	2.66	2.42	3.00	2.58
	SD	.36	.43	.42	.46	.41	.48	.58	.50	.44	.39	.48	.43
3	M	2.56	2.36	2.46	2.36	2.84	2.66	2.86	2.70	2.78	2.63	2.74	2.60
	SD	.39	.42	.75	.42	.59	.64	.53	.46	.38	.50	.52	.41
4	M	2.95	2.76	2.53	2.26	2.94	2.92	3.06	2.74	2.78	2.72	2.90	2.46
	SD	.34	.36	.23	.46	.30	.50	.38	.50	.33	.35	.36	.29
5	M	2.89	2.75	2.73	2.53	3.17	3.13	3.23	2.93	2.88	2.70	2.93	2.77
	SD	.30	.32	.32	.33	.34	.57	.58	.62	.30	.39	.43	.19
6	M	2.72	2.49	2.69	2.67	3.01	3.00	3.01	2.61	2.75	2.66	2.91	2.49
	SD	.32	.30	.46	.38	.42	.43	.50	.73	.32	.60	.46	.30
7	M	2.80	2.70	2.90	2.68	2.88	2.78	3.00	2.76	2.56	2.63	3.14	2.82
	SD	.25	.35	.20	.35	.42	.43	.48	.61	.53	.41	.45	.41
8	M	91.90	88.30	91.79	88.42	95.28	90.59	94.29	91.85	87.70	85.05	93.26	92.77
	SD	3.66	4.44	4.90	4.69	5.22	6.66	8.62	6.53	8.90	13.33	4.50	3.70
9	M	85.18	79.63	90.05	70.42	88.09	21.87	86.49	76.06	80.04	73.32	85.02	83.12
	SD	10.96	18.76	14.00	18.25	12.73	14.20	13.66	16.34	16.99	15.90	10.87	16.26

Note. 1. $\underline{N}$ = 25 for all schools except that $\underline{n}$ = 26 for the less effective school of the fifth pair of schools.
2. The symbol "+" refers to more effective school while "-" refers to less effective school.
3. The first two pairs of schools are in rural areas, the middle two pairs of schools are in the city District One, and the last two pairs of schools are in the city District Two. The sequence of schools listed here is consistent with that of the case studies presented in Chapters 7-9.
4. A larger score indicates a more positive response. The range of scores is from 1-4, except for Time-on-Task and Interactive Time-on-Task, which is 0-100%.
5. The numbers 1-9 for Dimensions refer to conductive environment, maximization of instruction time, management of learner behaviors, effective delivery of instruction, presentation of appropriate content, student involvement, assessment of student progress, time-on-task (%), and interactive time-on-task (%), respectively.

Table 6.16 Means and Standard Deviations for Dimensions of
Classroom Teaching for More Effective and Less Effective Schools

Teaching dimensions	School effectiveness status	Mean	SD	N
An conductive learning environment	More effective schools	2.91	.51	150
	Less effective schools	2.67	.50	151
	Total	2.79	.52	301
Maximization of instruction time	More effective schools	2.79	.46	150
	Less effective schools	2.55	.47	151
	Total	2.67	.48	301
Management of learner behaviors	More effective schools	2.71	.55	150
	Less effective schools	2.55	.49	151
	Total	2.63	.53	301
Effective delivery of instruction	More effective schools	2.86	.36	150
	Less effective schools	2.64	.46	151
	Total	2.75	.43	301
Presentation of appropriate content	More effective schools	2.97	.42	150
	Less effective schools	2.80	.46	151
	Total	2.88	.45	301
Providing opportunity for student involvement	More effective schools	2.84	.43	150
	Less effective schools	2.65	.51	151
	Total	2.75	.48	301
Assessment of student progress	More effective schools	2.88	.44	150
	Less effective schools	2.73	.43	151
	Total	2.80	.44	301
Time-on-task (%)	More effective schools	92.37	.07	150
	Less effective schools	89.47	.08	151
	Total	90.91	.07	301
Interactive time-on-task (%)	More effective schools	85.81	.14	150
	Less effective schools	76.76	.18	151
	Total	81.27	.16	301

Note. A larger score indicates a more positive response. The range of scores is 1-4, except for Time-on-Task and Interactive Time-on Task, which is 0-100%.

Table 6.17 Overall Means and Standard Deviations for Dimensions of Classroom Teaching for Urban and Rural Schools

Teaching dimensions	Community type	Mean	SD	N
An conductive learning environment	Urban schools	2.87	.54	201
	Rural schools	2.62	.43	100
	Total	2.79	.52	301
Maximization of instruction time	Urban schools	2.73	.49	201
	Rural schools	2.57	.44	100
	Total	2.67	.48	301
Management of learner behaviors	Urban schools	2.73	.51	201
	Rural schools	2.44	.52	100
	Total	2.63	.53	301
Effective delivery of instruction	Urban schools	2.81	.41	201
	Rural schools	2.63	.44	100
	Total	2.75	.43	301
Presentation of appropriate content	Urban schools	2.97	.48	201
	Rural schools	2.73	.34	100
	Total	2.88	.45	301
Providing opportunity for student involvement	Urban schools	2.80	.52	201
	Rural schools	2.64	.37	100
	Total	2.75	.48	301
Assessment of student progress	Urban schools	2.83	.50	201
	Rural schools	2.77	.31	100
	Total	2.80	.44	301
Time-on-task (%)	Urban schools	91.32	.08	201
	Rural schools	90.10	.05	100
	Total	90.91	.07	301
Interactive time-on-task (%)	Urban schools	81.24	.15	201
	Rural schools	81.32	.18	100
	Total	81.27	.16	301

Note. A larger score indicates a more positive response. The range of scores is 1-4, except for Time-on-Task and Interactive Time-on Task, which is 0-100%.

Results from Analysis of the Classroom Observations

A MANOVA was conducted on the data derived from the classroom observations. This analysis indicated that there was (1) a significant difference between more effective and less effective schools across the nine teacher effectiveness dimensions (Pillai's Trace = .164, $F(9,289) = 6.29$, $p < .001$), (2) a significant difference between urban and rural schools across the nine teacher effectiveness dimensions (Pillai's Trace = .131, $F(9,289) = 4.83$, $p < .001$), and (3) no interaction between effectiveness status and community type (Pillai's Trace = .026, $F(9,289) = .853$, $p = .568$).

Since the main effects of the MANOVA were significant, the univariate effects were further examined to determine which dimensions had significant effects. The univariate $\underline{F}$ values for effectiveness and community type, as well as the corresponding $\underline{p}$ values are summarized in Table 6.18.

Table 6.18 Univariate Tests for Dimensions of Classroom Teaching

Independent variables	Dependent variables	$\underline{df}$	$\underline{F}$	$\underline{p}$
Effectiveness	An conductive learning environment	1, 297	11.28	.001
	Maximization of instruction time	1, 297	18.62	.000
	Management of learner behaviors	1, 297	6.09	.014
	Effective delivery of instruction	1, 297	19.28	.000
	Presentation of appropriate content	1, 297	10.57	.001
	Providing opportunity for student involvement	1, 297	9.67	.002
	Assessment of student progress	1, 297	8.29	.004
	Time-on-task	1, 297	11.99	.001
	Interactive time-on-task	1, 297	26.67	.000
Community type	An conductive learning environment	1, 297	17.28	.000
	Maximization of instruction time	1, 297	8.27	.004
	Management of learner behaviors	1, 297	22.07	.000
	Effective delivery of instruction	1, 297	14.44	.000
	Presentation of appropriate content	1, 297	21.19	.000
	Providing opportunity for student involvement	1, 297	8.16	.005
	Assessment of student progress	1, 297	.92	.338
	Time-on-task	1, 297	1.92	.167
	Interactive time-on-task	1, 297	.01	.975

Examination of the univariate effects indicated that there was a significant difference on all the nine dimensions for effectiveness status at $\underline{p} < .05$ level. For community type, there were significant differences for all dimensions except three (assessment of student progress, time-on-task, interactive time-on-task).

Summary

The first research hypothesis stated that "The processes of effective schools in China are similar to those described in the international school effectiveness literature". The MANOVA analyses from the teacher, student, and parent questionnaires revealed a consistent

result: There is a significant difference, at the $p < .05$ level, between more effective and less effective schools across all the traditional school effectiveness variables. Further examination of univariate effects for the independent variable of school effectiveness indicate that the significant difference exists for (1) the dimensions of school reputation, expectations, academic norms, quality of instruction, and parent/school relationship for the teacher MANOVA analysis; (2) the dimensions of safe and orderly environment, academic norms, academic efficacy, and quality of instruction for the student MANOVA analysis; and (3) the dimensions of school reputation, safe and orderly environment, expectations, leadership, quality of instruction, and parent/school relationship for the parent MANOVA analysis. Therefore, we conclude that the processes of effective schools in China are similar to those described in the international school effectiveness literature, although the univariate effects for the teacher, student, and parent MANOVAs did not yield exactly the same results.

The second research hypothesis stated that "The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature". The MANOVA results for classroom teaching, at the $p < .05$ level, demonstrate a significant difference between more effective and less effective schools across all the traditional nine teacher effectiveness variables. Further examination of the univariate effects indicates that there are significant differences on all the nine dimensions for teacher effectiveness. Thus, we conclude that the processes of effective teaching in China are similar to those described in the international teacher effectiveness literature.

Research Question #2 asked "What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?" The

MANOVA analyses from the teacher, student, and parent questionnaires reveal a consistent result that there is a significant difference between urban and rural schools across all the traditional school effectiveness process variables. This indicates that the set of these school effectiveness processes can successfully differentiate between urban and rural schools in China. The examinations of univariate effects for the independent variable of community type show a significant difference existing (1) in the dimensions of expectations, collaboration, leadership, and quality of instruction for the teacher MANOVA analysis; (2) in the dimensions of expectations, quality of instruction, and parent/school relationship for the student MANOVA analysis; and (3) in the dimension of expectations for the parent MANOVA analysis. These results indicate that there is a consensus among teachers, students and parents that the school process variable expectations can successfully differentiate between urban and rural schools in China. The variable quality of instruction is also regarded by teachers and students as a differentiable school variable. Other variables such as school reputation, safe and orderly environment, and academic norms were not significant for community type across the teacher, student, and parent MANOVA analyses.

CHAPTER SEVEN: CASE STUDIES OF THE TWO PAIRS OF RURAL SCHOOLS

This chapter presents two pairs of case studies of rural schools. Information regarding the first pair of more and less effective schools, Xiangyang and Guangming, is reported first, followed by descriptions of the second pair of more and less effective schools, Ziqiang and Shuguang.

As described in Chapter 4, a three step procedure based on test scores was used to select the six pairs of more and less effective schools (two rural, four urban). Expert opinion was also used both in selecting the schools and in confirming that the selection was appropriate. (The reader should refer to Table 4.2 and nearby text for details on the school sampling procedure.)

The First Pair of More and Less Effective schools—Xiangyang and Guangming

Xiangyang Elementary School: The More Effective School

School Context.   Xiangyang Elementary was located in a residential area. The residential houses were densely situated around the campus, and all of them were one-story buildings. Few cars passed by the campus, which made the campus quiet. There were two entrances to the campus: the main entrance in the south and the other small entrance in the north. During daytime when students had classes, both the entrances were closed so that no one could come in without permission.

As visitors entered the campus, they could see a brick sidewalk which ran from north to south of the campus. There were four rows of buildings on the both sides of the sidewalk and at the end of the sidewalk was the playground. The first building was for the library, the science lab, and offices; the second building was for the display room and the computer lab;

and the third and the fourth buildings were for classrooms. The researchers observed that the library was locked. Later they learned the librarian also taught the 3rd grade science. The library, with approximately 8000 old books such as teaching references, history books, novels, and children's book, was only open to teachers, who occasionally came and borrowed books when the librarian was not busy with other things. Students had never visited the library so that one student listed "there was no library" as one of the worst things at their school.

The door to the science lab was also locked. Through its window, the researchers noticed that some experiment materials were neatly put in the two rows of shelves. It seemed that the experiment materials had not been used for a long time. A teacher told the researchers that the students had never done an experiment, but the science teacher demonstrated an experiment in the classroom so that the experiment did not hurt the students.

There were five teachers' offices: three teacher offices for teachers teaching Chinese and Math, one teacher office for the teachers teaching music, art, and P.E., and one teacher office for the teachers teaching other subjects. In the display room, there were many students' clay sculptures, pictures, and newsletters written by students. In the computer lab, there were twenty old computers, which could not access the internet. Every class from 3rd to 6th grade had two computer classes once a week, taught by a teacher who received special training in technology.

As the researchers observed, exhibits related to science knowledge and health knowledge were displayed around the school. The number of students present for each class, the names of teachers to be on duty, the curriculum schedule for the school, and a notice

bulletin were displayed on the bulletin boards in hallways. Awards, posters and artwork of students were displayed on the walls of the hallways. The displays had specific themes, and they changed every two months. A teacher who was in charge of students' discipline and an art teacher were responsible for the displays on the walls and the bulletin boards. The hallways, offices, and classrooms were fairly clean. The walls, windows, bathroom facilities, and approximately 30 percent of the students' and teachers' desks and chairs were in need of repair.

The student body at Xiangyang Elementary consisted of 755 students. There were a total of 52 teachers, including three P.E. teachers, two music teachers, and two art teachers. One of the P.E. teachers was an athlete from the Provincial Physical School, while the others weren't trained to be P.E. teachers. The two music teachers weren't trained for teaching music. The art teachers were from the art profession.

Principals.   There was one principal and two vice principals. One of the vice principal was in charge of teaching, and the other was in charge of non-teaching matters. The principal, who was in his fifties, had been principal here for 20 years. The teachers described him as someone who was dedicated to his job, was easy going, and paid attention to students' academic achievement. The researchers observed that he had a very good relationship with teachers, and some senior teachers sometimes joked with him. He was also cautious. For instance, he did not allow having lights in a classroom although there was power there because he was afraid the classroom electricity would bring about fire in bad weather, as it did in another school.

He told the researchers that he was happy to have been principal at this school and he usually looked forward to coming to work at the school. He thought as a principal, he could have a substantial effect on the teachers' ability to deliver effective classroom instruction as well as on students' academic achievement. He expected 30% to 49% of the students in the school to attend a college. The researchers learned that the principal did not have the power to hire new teachers, who usually were assigned by the district office, but no new teachers had come to the school for the past three years since it was fully staffed.

The school administration, mostly the principal, made policy decisions. Regarding the faculty's role in the school's decision making, one teacher said, "We vote for some decisions, but it is a kind of facade. So, in fact there is no democracy, and we do not have opportunities to participate." All the other interviewed teachers concurred that they just obeyed the decisions without discussion. The principal made the staff development plans as well as the school's plan for the academic year. Based on that, the same-grade teachers made theirs, which guided individual students' plans.

The principal or the vice principal in charge of teaching frequently visited classrooms. They were required to visit a fixed number of classes each semester, since each semester the district educational department came to the school to see the records of their classroom observations. Most of the time they did not inform the teacher, and sometimes they informed the teacher ten minuets before the class began so that the teacher demonstrated normal teaching practices since they did not have enough time to do special preparations. After classroom observations, they discussed the teachers' strengths and weaknesses with them and gave suggestions for improvement. For those who would have a demonstration

lesson, the principals gave more guidance. As one teacher said, "I prepared a demonstration lesson for all school representative teachers in my neighborhood. The principal observed my classes several times before the demonstration lesson and gave suggestions for improvement."

Teachers.   With an ideal teacher at the school described as someone who was knowledgeable, had excellent teaching strategies, and cared about students, all of the teachers worked hard. As the researchers observed, every morning about half of the Banzhurens[17]arrived at school one hour earlier than the designated time while the other teachers arrived half an hour earlier. Especially in winter, a Banzhuren had to come earlier to light the stove.

In Xiangyang, a Banzhuren taught both Chinese and math to his/her class in addition to the class management. Students' test scores, especially the ones from the district-level examination that was done once or twice per semester, were extremely important for their teachers, constituting a main part of the teacher evaluation. As a result, almost all the teachers taught to the test. As one teacher said, "I completely teach to the test. It's unreasonable not to teach to the test with a teacher evaluation system with test scores as a priority." In order to improve students' test scores and make their students rank at the top, most teachers came to school at least 30 minutes prior to the designated time every morning to tutor their students. Some teachers even provided students with free tutoring on weekends. Accordingly, for most teachers their teaching focus was knowledge mastery because "Knowledge delivery is faster

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[17] A Banzhuren is a teacher who is in charge of a class' management. As a director of a class, a Banzhuren is responsible for the students' studies, behaviors, ethics education, health and safety. He/she is also responsible for contacting parents and coordinating with other teachers who teach the class. Most often, a Benzhuren teaches the class one or two subjects.

than cultivating abilities for improving students' test scores," said a teacher. Sometimes teachers gave students optional homework, which was usually done by high-performing students who want to prepare for the school Chinese or math competitions.

The staff development programs included several components. (1) At the beginning of the semester, the school organized a professional knowledge examination, including Chinese, math, science, and social studies, to see how well teachers mastered the knowledge of the elementary school level. The scores were not publicized, and were only known by the school administration. Each individual teacher only knew his/her own score. This process was designed to stimulate those who failed the exam to improve their professional knowledge. (2) The school sent teachers to the key schools in Changchun to observe "model" lessons. (3) At school, teachers watched videos of some national master teachers' lessons. They also observed and evaluated each others' classes. (4) Teachers had to take two exams to be qualified for promotion. The first one was for teacher continuing education and organized by the county Teaching Research Center. The second was a foreign language project organized by the Changchun Educational Department. People from different age groups took different levels of the examination. Young teachers took the advanced test while senior teachers did the preliminary one.

While observing the classrooms in this school, the researchers found that (1) the Chinese thinking was uniform. In a first grade Chinese language class, when students wanted to answer questions, they were required to raise their right hands. When a little girl did not know which one was the right hand, the teacher told her that it was the one that you used for writing; (2) some teachers would like to have high-performing students to answer questions.

In a fifth grade math class, the teacher asked two students to answer questions more than five times each. In another class, the teacher frequently asked only the ten or so out of 51 students to answer questions. The researchers called this "talent education," which meant that the teacher only focused on the few gifted students when he/she could not call on each student in a large size class; and (3) the teaching conditions were poor. In at least two classrooms, the researchers found that one leg of a wooden desk was broken so that the desk was not even.

Students' School Life.   The first period of class started at 8:00 AM, but students were encouraged to come to school at 7:30 AM for Zaozixi.[18] Each day, as the researchers observed, approximately 80% of the students arrived at school earlier, and only a few students were late for class. From 8:00 to 9:30 AM they had two classes, each lasting 40 minutes, with a ten-minute break between. Then they had a 15-minute break, which included eye massages. After the third period of class, students had a 20-minute break, which included exercise at the school playground. Then they had the fourth period of class, followed by a 20-minute lunch break.[19] From 11:45 AM, they had another three classes, with a 10-minute break between classes. Table 7.1 shows the schedule of the school. A typical math class at this school is described in detail on page 300 in Appendix F.

During the winter session, students could not go home for lunch. They sat at their seats in the classroom eating something that they brought from home or bought from the school's grocery. The students were allowed to talk during lunch. Teachers were not required

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[18] Zaozixi is a kind of academic warm-up in the morning. It is usually organized by one teacher who teaches math or Chinese language for more exercises on that subject. The teacher might lead the students to review the old lesson or preview the new lesson. Sometimes a teacher makes a Zaozixi an extra formal class.

[19] When the researchers visited the school, it was the winter season, which lasted from November to March. During this period of time, farmers had two meals a day. The school had the same schedule as farmers. The lunch break was very short, and there was no lunch break in some schools.

to eat lunch with their students. In the other seasons, the school had a one and a half hour

lunch break so that most teachers and students went home for lunch.

Table 7.1 Schedule of the Xiangyang School

7:30—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30-9:45	Break, including eye massages
9:45—10:25	The third period of class
10:25-10:45	Break, including exercise
10:45—11:25	The fourth period of class
11:25—11:45	Lunch break
11:45—12:25	The fifth period of class
12:35—13:15	The sixth period of class
13:25—14:05	The seventh period of class

There was a clearly stated discipline policy at this school, and most students obeyed

the rules so that there had been no big discipline problems. If there were any discipline

problems, they were reported to the Banzhuren, where most problems could be solved. If the

problems were serious, the Banzhuren contacted parents. If the problems still could not be

solved, they were reported to the principal. Whoever dealt with the problem did not strictly

implement the discipline rules. Solutions were made to educate the students.

The school rewarded the students who had good academic achievement. Basically,

the high performing students cared more about test scores than low-performing students.

Some teachers said that some low-performing students gave up academic pursuit. Also, girls

paid more attention to test scores than boys. Upon getting a bad score, some girls would cry.

As for parents, they paid more attention to their children's education now than before,

according to the report given by the researchers. Some teachers told the researchers that

parents often communicated with teachers about their children's study at school. However,

only a few felt responsible for their children' achievement. Most of them thought that the

students' test scores were completely determined by the teaching quality. They did not realize the parents' role of supervision and encouragement.

Generally, the teachers at this school were satisfied with their jobs in this school and proud to be a member of the school. As one teacher said, "Last year our school teachers' scores for the district-level professional knowledge examination organized by the county educational department were very high. Also, the principal would like to spend money sending teachers for professional workshops."

However, the Bauzhuren felt very tired and under a lot of pressure because both the principal and students' parents, who hoped that the Banzhuren could do more to make the students attain maximum achievement. "I hope the school does not evaluate teachers using students' test scores. We are too pressured," said a Banzhuren. Other teachers expected improvement of teaching facilities as well as teachers' welfare. "I teach science. I hope I have the instruments for experiments," said a science teacher. A senior teacher told the researchers, "Our monthly salary is 600.00-700.00 yuan[20] ($72.29 to 84.34), but it's said that some urban teachers make 3,000 to 4,000 yuan ($361.40 to 481.93). Although we are used to it, I hope our salary will be increased."

When asked to list the three best things at their school, the students had a consensus: teachers had a high level of knowledge and excellent teaching skills. The students also listed the three worst things at their school, which could be summarized as follows: (1) There was not much sports equipment. (2) Too many desks and tables were in poor condition. (3) The classroom was too cold in winter. (4) The evaluation of students based on test scores made

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[20] Yuan is the unit of Renminbi, the Chinese currency. One hundred yuan equals 12.50 dollars in May 2006.

them feel excessive pressure. Parents concurred. They also listed the three worst things at the school: (1) The playground and the bicycle house were small. (2) The school should offer more computer classes. (3) The library should be open to students. (4) Too many examinations and competitions burdened students. (5) The class size was large. (6) Extracurricular activities were few. The three best things they listed about the school included (1) the school administration and teachers focused on students' academic performance and there were many frequent examinations as well as Chinese language and math competitions so that the students' scores were comparatively high; (2) parents did not worry about students' safety at school; and (3) the school had a clear payment policy. It seemed that on the one hand parents were happy that there were examinations and competitions, but meanwhile they were afraid that this would burden their children.

Guangming Elementary School: the Less Effective School

School Context.   Guangming Elementary was located in a residential area. In front of the school, a road ran from north to south. Many cars passed by the campus, which made the campus noisy, and it was dangerous for the students to go across the road.

As visitors entered the main entrance, they could see the school's motto of "Enterprising and factualistic!" There were three buildings on the campus. The first building was for teachers' offices, first grade classrooms and kindergarten. The second building was for third to sixth grade classrooms, and behind it there was a playground large enough to accommodate all the students. There were outdoor restrooms west of the ground. The first building and the second building were facing each other, while the third smaller building was located between them. In the past, the third building was used for the library, the science lab

and the computer lab, but now it was for classrooms and the computer lab. There were 26 computers in the lab, none of which could access the internet. Every class from the third to sixth grade had two computer classes once a week, taught by a teacher who was the principal's son and graduated from a community college without receiving special training in technology. The third and fourth grade students were taught typing, while the fifth and sixth grade students were taught drawing a picture.

In winter, all the rooms used stoves to generate heat. If the weather was not very cold, some classrooms only kept the stoves lit in the early morning in order to save coal. The researchers heard a teacher ask the students if they were cold at 10:00 AM. When the students said no, the teacher said, "Let's stop adding coal to the stove." The school had 800 students and 56 teachers, including two P.E. teachers, two music teachers, and two art teachers. None of the teachers had received professional training. The first period of class started at 8:15 AM, but both teachers and students were required to come to school by 7:50.

Principals.   There was one principal and two vice principals. The principal was assigned to this school to be principal four years ago. During his four-year principalship in the school, the principal seldom communicated with teachers, because he did not believe that he could have much effect on the teachers' ability to deliver effective classroom instruction. As a result, he rarely visited classrooms, except when a teacher did a district-level demonstration lesson. The vice principal in charge of teaching, however, frequently visited classrooms since each semester the district educational department came to the school to see if the principal(s) observed a fixed number of classes as required that semester. After the classroom observations, he gave comments and suggestions for improvement.

The principal spent most of his time making policies as well as handling some big events. For example, although the principal had no power to recruit formal teachers, he did have the power to hire substitute teachers. In this school, most of the young teachers graduated from a community college, and most of the senior teachers had previously been Minban[21] teachers.

There was a story about these substitute teachers. In 2002, the county educational department sorted out quite a few unqualified formal teachers in the county urban schools and assigned them to rural schools. Since these teachers did not like to go to a rural school, a compromise policy was made: they paid the school they were assigned to 200.00 yuan each month, and the school used 130.00 yuan to hire a substitute teacher at the local level. These temporary teachers were less-educated: some of them had been housewives and had not even graduated from middle school. When the county educational department assigned the teachers to Xiangyang Elementary, the principal refused to accept them. In contrast, the Guangming principal accepted the assigned teachers, probably because he did not want to oppose the department or because he considered that the school could gain RMB70.00 for each teacher. Anyway, the principal had to handle the matter of hiring substitute teachers.

Besides the substitute teachers, the formal teachers also brought problems to the principal. One day the researchers heard a teacher crying and making a loud noise in a teachers' office. Later they learned that it was the Banzhuren from grade two, class one whose

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[21] A Minban teacher refers to the substitute teachers in rural schools before 2000. These teachers did not hold a professional certificate, and most of them graduated from middle or high school. A new policy was implemented in 2000 in Jilin province of China: All the qualified Minban teachers, those who had been Minban teachers for more than 15 years by 2000 and had passed a professional test, were transferred to formal teaching positions. Those unqualified Minban teachers were fired.

class did not get the Excellent Class Award last year. She thought she was dedicated to managing her class for the past year, but she was not recognized by the school administration and her peers. The next day, she went to the principal and argued with him. A teacher told the researchers why she was not awarded: her teaching skills were not very good because she had formerly been a Minban teacher. When she took the examination for transferring to a formal teaching position, she failed it many times. Finally, she received a special transferal since she had worked at this school for so many years (i.e., the equivalent of a "grandfather" clause in the USA).

Another big issue that the principal had to handle was student safety. A teacher told the researchers that one student bumped into the wall and fell while he walked in the hallway. As a result, he hurt himself such that his nose was bleeding. His parents came to school and wanted to hit the principal. They also planned to sue the school and the principal. In order to appease the situation, it was rumored that the principal paid the parents and thus solved the matter.

The school academic teaching plans, as well as staff development plans, were generally decided by the principal. For example, "He decided who had the rare opportunity to visit other schools or attend workshops. We don't have the power," a teacher told the researchers. It seemed that the faculty played a small role in the school's decision making. Most often, the school administration (principal and vice principals) made decisions, and teachers then voted on them (e.g., the excellent teaching award). The teachers never knew how many votes each teacher received in the "election". Therefore, teachers were not really interested in such participating in such events. "It does not matter whether to participate or

not. We do not like to express our opinions even if we disagree. Teachers are used to obedience. It seems we can tolerate everything although sometimes we talk with peers about some problems," a senior teacher said.

Teachers.   An ideal teacher at this school was described as someone who was a moral model for students, had a good relationship with others, had strong professional skills, and liked continuing in-service learning. In reality, a teacher whose students' test scores were high was regarded as excellent. Some teachers told the researchers that students' test scores were very important in teacher evaluation, constituting 80% or so. In addition, the school organized competitions of teaching skills, and those results were also important. Above all, the principal's impression of a teacher and the teacher's network of relationships were crucial in that teacher's evaluation.

For a Banzhuren, how well he/she managed the class was another evaluation indicator. The new curriculum reform had not changed the approach to teacher evaluation very much in this school. Therefore, "teaching to the test" was still popular. As one teacher said, "I believe that as students' abilities improve, their test scores will naturally increase. So, in my daily English teaching, I pay attention to cultivate students' abilities. However, I still "teach to the test" because my students' test scores are important for me." A senior teacher told the researchers that several years ago teachers in this school did not care much about their students' test scores. If the students' scores were good, the teacher gave the school administration a good impression. Now, the county teaching research center randomly sampled students to take the uniform examination each semester, and the results were used to compare schools. "Since no one knows whose class will be sampled, all the teachers are

nervous, because if your class is selected, and the results are not good, the principal will criticize you," the teacher said with a sigh.

Pursuit of good test scores made knowledge mastery the teaching focus in the school. Using a uniform teaching plan for each grade (which was based on the school plan that the vice principal in charge of teaching made according to a general plan from the county teaching research center), teachers paid more attention to the key points of knowledge to prepare students for tests. "I know hands-on activities are good for students, and I should focus on both knowledge delivery and cultivation of abilities. However, knowledge mastery is the first in an exam-driven environment," one teacher argued.

The programs of staff development at the school also included:

(1) sending teachers, especially young teachers, to visit the key schools in the county to learn excellent teaching skills. But no one had been to Changchun for a visit since travel was so expensive that the school could not afford it;

(2) competing with other teachers by demonstration lessons; and

(3) reading some journals such as Jilin Education and Continuing Education to enrich their knowledge.

Regarding their opinions of the staff development program, most teachers wanted more opportunities to learn something new. A senior teacher said, "I hope the school could buy some excellent teaching videos for us to watch since senior teachers like me do not have opportunities to go out to visit good schools."

In addition to listening to voices of the teachers, the researchers also observed what happened in the classrooms. First, in several classes, the students sitting at the back of the

class did not follow the teachers. They either played with something in their hands like a pen and a rubber, or squatted under the desk playing games with their neighbors, or slept, but the teachers seemed to ignore them. The researchers were told that if a teacher "gave up" on students who did not like studying or who did not study well, the teacher would just put these students in the back of the classroom. If they did not interrupt the class teaching, the teacher was no longer concerned about them. The researchers observed this "student in the back of the classroom" phenomenon several times in Guangming Elementary

Second, quite a few teachers did not have good teaching skills. In two English classes, the researchers found that the teachers could not pronounce English correctly and fluently; therefore, the students did not pronounce English well either. After talking with a teacher, the researchers learned that these English teachers graduated from a community college without English training. The researchers thought that teachers with such backgrounds should let the class spend more time listening to American English tapes.

In a fifth grade math class, the pace was too fast. For instance, a researcher felt that not all of the students had understood the example, but the teacher moved the class on to next step of doing exercises. The researchers also found that two teachers were lowering their heads and reading the reference when explaining the main idea of a text. Since the teachers did not explain the text in their own language, it sounded abrupt and not fluent. As a result, the researchers doubted that the students could understand it.

Teachers at this school were also very strict with students. In the third grade Chinese language class, the teacher asked a question, then the students were asked to stand up and answer it one by one and to keep standing until the correct answer was forthcoming. In a

fourth grade Chinese language class, when a student could not answer a question, the teacher criticized him: "I told you to preview the text before class, why didn't you do it?"

The researchers found that students did not pay attention to other subjects like Moral Education and Psychology. In these classes, the researchers discerned a kind of lackadaisical atmosphere. Generally, only one third of the students did what the teacher required.

Students' School Life.   During the winter session, which lasted from November to March, the first period of class started at 8:15 AM, but students were required to come to school by 7:50 AM for Zaozixi, except those students on duty who had to arrive at school by 7:20 every morning. Each day, approximately ten students were late for class. From 8:15 to 9:45 AM they had two classes, followed by a 20-minute break, which included exercise and eye massages. Then they had the third and fourth periods of class, followed by a 25-minute lunch break. From 12:00 PM, they had another three classes. Each lasted 40 minutes, with at least a ten-minute break between classes. Table 7.2 shows the winter schedule of the school. In the summer season, school started earlier, and there was a one and a half hour lunch break so that students and teachers could go home for lunch. A typical math class at this school is described on pages 300-301 in Appendix F.

Table 7.2 Schedule of the Guangming School

7:50—8:15	Zaozixi
8:15—8:55	The first period of class
8:05—9:45	The second period of class
9:45-10:05	Break, including exercise and eye massages
10:05—10:45	The third period of class
10:55—11:35	The fourth period of class
11:35—12:00	Lunch break
12:00—12:40	The fifth period of class
12:50—13:30	The sixth period of class
13:40—14:20	The seventh period of class

Except for the morning exercise, students were not required to go outside during breaks, including lunch time. Some of them liked to stay in the classroom studying, chatting, or eating in an unsupervised setting. For lunch, students could order food, or they could buy snacks in the school grocery store.

There were clearly stated discipline policies. For example, the school had detailed rules for students putting trash in a designated place. Nevertheless, trash was still littered everywhere around the school grocery store, which was run by a relative of the principal. Teachers told the researchers that there were quite a few students in each class who misbehaved because they were the only child of the family, and thus their parents spoiled them. Some of the students were defiant when they were criticized by teachers due to misbehavior.

There were a discipline coordinator and several teachers in charge of student discipline. If a student was caught breaking rules, points were deducted from his/her class. Generally, if students presented discipline problems, they were sent to the Banzhuren, who could solve most problems. If the problems were serious, parents were called. If the problems still could not be solved, the school discipline coordinator or the principal would handle them personally.

Not many students paid attention to their test scores. A teacher told the researcher that for most students test scores did not matter. This teacher thought that students' attitudes to their studies were related to their parents' attitudes and expectations. Not many parents at this school were said to pay attention to their children's schooling. Some of them were so busy working on the field that they could not go to the school even if they were asked to,

while some did not have high expectations of their children. "I do not expect my child to go to college. If only she can read a little, that's fine," a parent told a teacher. For some other parents, they said they supported their children's study, but they did nothing. For example, they did not supervise their children's homework.

Generally, teachers in this school were happy having a job there, but had few other positive feelings about the school. As one teacher said, "I am glad that I have a job so that I don't need to work in the field to do the dirty and exhausting work as a farmer. But I have no feelings about the school, and I am used to obedience."

Students and their parents did not record many comments about the school. The three worst things about the school that students listed were (1) teaching equipment was lacking; (2) in winter, there was no heating system, and the classroom was cold; and (3) some students often cursed and fought each other.

Comparisons of Xiangyang and Guangming

From the descriptions above we can see that the two schools have many similarities as well as differences in leadership, teaching, and relationship between school and parents, school conditions, and so on. The similarities can be summarized as:

- The school administration, mostly the principal, makes policy decisions.

- The principal or the vice principal in charge of teaching frequently visit classrooms. After classroom observations, they give comments and suggestions for improvement.

- The principal does not have power to hire a new teacher, who usually was assigned by the district office.

- Students' safety is the most important issue for the principal.

- Students' test scores are extremely important in teacher evaluation. As a result, almost all of the teachers taught to the test, and their teaching focus was knowledge mastery.

- Teachers care about high-performing students and ignore low-performing students. For example, they would like to have high-performing students to answer questions, especially when there are visitors. Low-performing students, or students with bad behaviors, are put in the back row and are often neglected by teachers.

- Banzhuren teaches both Chinese and math.

- Teachers' salary is far lower than that of urban teachers.

- Students were nervous when there were visitors in the classroom.

- The principals, parents and teachers pay attention to students' studies and safety at school, but students' individual hygiene is ignored so that some students' hands are very dirty.

- Most parents communicate with teachers about their children's education. However, only a few felt responsible for their children' achievement. Most of them thought that the students' test scores were completely determined by the teaching quality. They did not realize the importance of the parents' role of supervision and encouragement.

- Teaching resources were lacking.

- There was not much sports equipment.

- The library was only occasionally open to teachers not for the students.

- Stoves are used to give heat and dirt is thick.

  There are also some differences between the two schools:

- When the district office assigned unqualified teachers to Xiangyang Elementary, the principal refused to accept them. In contrast, the Guangming principal accepted these teachers.

- Xiangyang 's teachers generally exhibited better teaching skills.

- Xiangyang's Banzhurens usually come to school earlier than Guangming 's teachers to lead students' morning study. They even sacrificed their weekends to help students with their studies. Xiangyang's teachers felt uneasy if their students' grades were bad. Guangming's teachers do not care about their students' test scores very much, since a lot of teachers are substitutes.

- Xiangyang's students care more about their studies than Guangming's students.

- Teachers at Xiangyang are more highly qualified that those at Guangming. This better preparation resulted in better classroom teaching.

The Second Pair of More and Less Effective Schools—Ziqiang and Shuguang

Ziqiang Elementary School: the More Effective School

School Context.   Ziqiang Elementary was facing south of the township government building, with a road between them. Near the school were a post office, local police station, township hospital, and several shops and restaurants. As visitors entered the campus, they would see a parallel bar on the right. In front of the parallel bar there was a bicycle shed, under which there was a bike rack where teachers' motorcycles and students' bicycles were

kept. A big bulletin board was above the fence, which listed the Elementary Students Discipline Rules, the Everyday Behavior Regulations, and some famous educators' sayings. The teachers' and students' restrooms were in the back of the campus. They were simple and crude, but very clean. Every morning and noon they were cleaned by students.

Walking forward, visitors would see two rows of one-story buildings. The first building was used for offices in the east and classrooms in the west, and the second building was used for the computer lab, the computer teachers' office and the kindergarten. There were twenty computers in the lab. Every class from third to sixth grade had one computer class once a week, taught by a teacher who had received training in technology.

An entrance led to the offices where some plaques hung in front of the gate. Walking along the corridor, you would see the Reward and Punishment Rules for Teachers, the Teacher-Used Refining Language and Tabooed Language, and the Ten Forbidden Teachers' Behaviors posted on both sides of the walls. All the teachers shared one office, where the desks were put into three rows. The four teachers who taught music, art and P.E. sat near the door. The middle desks were for the first, second and third grade Banzhurens. The other row of desks were for the fourth, fifth and sixth grade Banzgurens. The English teachers and the psychology teachers sat in one corner.

In addition to these two main buildings, another three rooms constituted the third building, where the south room was the clinic, but it was not open to students; the middle room was the library with about four hundred old books; and the north one was for storage. All the three rooms were locked, and the storage room was occupied by materials such as steel shelves, steel tubes and wood.

Every classroom used a stove to generate heat. The Banzhurens of the lower grades were in charge of the stove, while students in the upper grades were in charge of it. When it was very cold, parents worked in turn to help light the stove every morning.

The student body at Ziqiang Elementary consisted of 323 students, and there were 44 teachers total. Students and their Banzhurens were required to come to school by 7:30 AM for the Zaozixi while other teachers had to come by 8:00 AM. All the teachers had to be present at the 15-minute teacher morning meeting. At the meeting, the teaching coordinator would announce some important things for that day, and the Banzhuren would then announce some of them (e.g., relative to hygiene or transportation) to their students.

Principals.　　There was one principal and two vice principals at the school, and all of them were male and around 50 years old. The principal has been in that role in this school for twelve years. He told the researchers that he loved being a principal in the school, and he usually looked forward to coming to work at the school. He believed that as a principal, he could have a substantial effect both on the teachers' ability to deliver effective classroom instruction and on students' academic achievement. He felt that there was a great deal she could do to insure that all of the students in the school achieved at a high level.

The principal arrived at the school early every day. On March 8 when the researchers got to the school at 7:30 AM, the principal was already there. The researchers observed that the principal was very busy that morning. A teacher came in to consult with him on what to buy for the female teachers as presents for the Women's Day.[22] The teacher reported that he had been to a shop, and the suitable presents cost 38.00 yuan ($4.58 or so) each. The

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[22] March 8 is National Women's Day. On that day, most schools buy presents for female teachers, and some schools have half of the day off.

principal said that they had planned to buy the presents at 16.00 yuan ($1.93 or so) each. Finally, they decided to buy something for approximately 20.00 yuan ($ 2.41 or so) for each female teacher.

Then the teaching coordinator took a boy and his mother to the principal's office. The boy looked at the water machine and said he was thirsty. His mother looked around and said there was no glass. One of the vice principals picked up his glass and passed it to the mother. The mother walked to the water machine with the glass, asking in low voice, "How do I use the machine? I have never used it." The vice principal helped her. The boy took the glass and drank the water without breathing. The researchers were a little shocked. People living in the city did not use another person's towel or glass because they were afraid that the owner would mind, but here it seemed no one minded. Later the researchers learned that the boy was transferring here from another school. When they arrived at a second grade class, the boy had been seated there.

The principal and the vice principal in charge of teaching frequently visited classrooms since they were required to observe a fixed number of classes each semester by the county educational department. The department sent people to the school to see the records of principal classroom observations each semester. After classroom observations, the principal(s) gave teachers concrete comments and suggestions for improvement.

At this school, the principal (and vice principals) made policy decisions, and teachers voted. Teachers are accustomed to being obedient so they seldom expressed their own opinions. One teacher said, "If the principal asks me to be involved in a school's decision making, I'll do it. But most of time I have no opinions." The principal had no autonomous

power to recruit teachers. Hiring teachers were made by the district office, and no new teachers had been hired at the school since 2000 because it was fully staffed.

Teachers.　An ideal teacher at the school was described as someone who was responsible for students. In reality, a teacher was evaluated mainly by the students' test scores, even after the new curriculum reform. For a Banzhuren, who was responsible for classroom management and for teaching Chinese and math, he/she was evaluated by students' behavior and hygiene as well as the students' test scores. Each week all classes competed for the behavior and hygiene flags. If a class received one flag (either behavior or hygiene), the Banzhuren gained one credit; if the class received two flags, the Banzhuren gained two credits. At the end of the semester, these credits plus the students' test scores were used to evaluate the Banzhuren, and rank their performance. Banzhuren who were ranked at the top would be financially rewarded.

Programs of staff development at Ziqiang Elementary included peer observations, which were accomplished through demonstration lessons. The school also invited experts such as teaching coordinators from Changchun Educational Institute to be guest speakers. However, the teachers in this school did not have many opportunities to attend off-campus professional activities due to a limited budget. One teacher commented on the professional development in the school, "A rural school like ours mainly relies on chalks and textbooks in the classroom teaching, no computers in classroom. Thus, it is understandable why the school did not send us to visit the best urban schools or to attend some workshops." The researchers did find that teaching facilities were extremely lacking. In a science class on plants, the teacher had to use a chart made by hand, which did not interest the students.

Nevertheless, the researchers reported that the teachers at this school had great teaching skills in general. They could control the classroom with an appropriate teaching pace as well as a good climate. Most teachers wrote beautifully on the blackboards. Also, many teachers in this school encouraged students' participation. In a Chinese first grade language class, when a student read the text too fast or was nervous or gave a wrong answer, the teacher simply approached him/her and patted his/her head, indicating that everything was fine and to please continue.

Problems in teaching did exist in classes other than Chinese or math, such as the English classes. In these classes students presented more misbehavior since they did not attach importance to these courses. The major problem in the English classes was that the teachers could not pronounce English correctly and fluently, nor could the students. A third grade English teacher told the researchers that she did not have English training and in fact she did not know much English. In addition, she also taught social studies.

Students' School Life.   In the winter season, the first period of class started at 8:20 AM, but students were required to come to school by 7:30 AM for Zaozixi. In this school, the Banzhuren utilized the Zaozixi time, either doing Chinese language or math. From 8:20 to 9:50 AM they had two classes, followed by a 20-minute break, which included exercise and eye massages. Then they had the third and fourth periods of class, followed by a 20-minute lunch break. From 12:20 PM, they had another three classes. Each class lasted 40 minutes, with at least a ten-minute break between classes. Table 7.3 is the winter schedule of the school. A typical math class at this school is described on pages 301-302 in Appendix F. In

the summer season, school started earlier, and there was a one and a half hour lunch break so

that students and teachers could go home for lunch.

Table 7.3 Schedule of the Ziqiang School

7:30—8:20	Zaozixi
8:20—9:00	The first period of class
9:10—9:50	The second period of class
9:50—10:10	Break, including exercise and eye massages
10:10—10:50	The third period of class
11:00—11:40	The fourth period of class
11:40—12:20	Lunch break
12:20—13:00	The fifth period of class
13:10—13:50	The sixth period of class
14:00—14:40	The seventh period of class

During breaks, students were not required to go outside. If they went out, they were

told by the Banzhuren to play only with their classmates. The researchers saw a fourth grade

girl come back to the classroom during a break and tell the teacher that another girl in her

class was playing hackysack with a fifth grader. The teacher explained that due to previous

problems she was afraid the students would fight if they played with the older students.

The Daduifudaoyuan[23] and students on duty were in charge of enforcing discipline.

A minor problem could be solved in class by the teacher. If the problem was serious, it would

be presented to the Banzhuren, the Daduifudaoyuan, the parents, and finally the principal

depending on how serious it was. Teachers were not allowed to physically punish students.

As a result, some students were not afraid of and even defied teachers. "I sometimes hit my

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[23] A Daduifudaoyuan is the head of Daduibu, a branch organization of the Communist Party in elementary
schools. A Daduifudaoyuan is responsible for the students' overall development in general (e.g., students' studies
and behaviors) and their political orientation in particular (e.g., whether a student would like to be a member of
the organization). A Daduifudaoyuan can teach subjects as well, but his/her workload is less than a regular
teacher.

child's hands if he does not listen to me. I think we should be allowed to hit students' hands; otherwise it is hard to manage a classroom," one teacher said.

The researchers found that students at this school were very polite and enthusiastic. At one point, as they entered a first grade class, a boy immediately offered them chairs. Another boy heated his own cushion over the stove and let one of the researchers use it.[24]

The researchers were told that students with high esteem cared more about the scores than those low-esteem students. The parents of many of the students in this rural school cared about their children's test scores as well, but not as much as the urban parents did.

Generally, most teachers were pleased with their jobs at this school. Their biggest wish was to increase their salaries. When asked to list the best things at their school, the students listed (1) the educational environment was great. Teachers carefully taught them and their test scores were very good; and (2) students discipline on campus was very good. The principal managed the school well, and teachers managed classes well.

Parents concurred. They thought that both the teaching quality and students' behaviors were very good. However, both students and parents thought that the school's equipment was in bad condition. For example, some Blackboard erasers were so bad that they caused dust. Also, the playground was small that students had limited space for outdoor activities.

Shuguang Elementary School: the Less Effective School

School Context.   Shuguang Elementary was located in a residential area. The school was so close to the residential area that dumpsters were very near the school. From the

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[24] Chinese in the north are used to putting a cushion on the chair to keep warm. At school, students are required to have one for their health, especially in the rural schools where classrooms are cold in winter.

entrance of the school, visitors could often see people peddling their wares in front of the school entrance. As visitors entered the campus, they would notice a brick sidewalk running from north to south of the campus. Three rows of buildings were on the left of the sidewalk, while a playground was on the right. The restrooms were located behind the third building.

The second building was for offices, while the other two were used for classrooms. The 44 teachers shared three offices in the building. The first office was for Banzhuren, who also taught both Chinese and mathematics to his/her own class. The second office was for the music, art, and P.E. teachers. The third office was for those teachers who taught the other subjects.

The principal's office was very cold, so he often stayed in the teaching coordinator's office. All the rooms in the school used stoves to generate heat. The school provided coal, and each student was required to bring two bags of dry corncobs to light the stoves. The stove in the union chairman's office was also used to cook rice porridge for teachers, and they ate it during 10:35—11:00 AM while students did exercise on the playground, since the school has no lunch break during the winter session.

The school had a library, a computer lab, and a science lab. The researchers observed that the door of the library was locked. Through the schedule on the door, they learned that it was open to students from Monday to Friday during the seventh period of class. The researchers estimated that the library was so small that it could accommodate only 50 students. In the computer lab there were twenty old computers, which could not access the internet. Every class from the first to sixth grade had a computer class once a week, taught by a teacher who received special training in technology. The door to the experiment lab was

locked. Through its window, the researchers noticed that some experiment materials were messily put in the two rows of shelves. It seemed that the experiment materials had not been used for a while.

The student body at Shuguang consisted of 332 students. Every day teachers needed to check in by 7:50 AM, but students and their Banzhurens had to arrive by 7:30 AM for Zaozixi. The researchers observed that each day about four to five teachers and students were late, respectively.

Principal.   There was one principal, but no vice principals in the school. It was rumored that very soon the teaching coordinator would be promoted to vice principal. The principal was middle-aged. He graduated from a community college in 1991 and completed the graduate-level courses in a normal university. He was promoted from vice principal very recently (in September 2005). He believed that as a principal, he could have a substantial effect on the teachers' ability to deliver effective classroom instruction as well as on students' academic achievement. However, he did not have high expectations of the students. He expected that less than 30% of the students would attend colleges.

The principal and the teaching coordinator frequently visited the classrooms. They had a fixed number of classes to visit each semester since the county Educational Department came to the school to see the records of classroom observations. In order to observe the normal, most of the time they randomly entered a classroom without prior notice, and sometimes they informed the teacher ten minutes before the class that they would be visiting. After the classroom observations, they gave suggestions.

The general procedures for the school's decision making were that the school administration (primarily the principal) made the decision, and teachers voted. For example, last year the school implemented a 30% salary fluctuation system, which meant that the school kept 30% of each teacher's salary for differential rewards. Teachers whose students had excellent performance could get a little more than 30% back. Teachers whose students' test scores were not very good (or for a Banzhuren, his/her class had lower scores in discipline or hygiene) would get less than 30% back. This policy was made by the school administration, and teachers voted for it. Since no one opposed it, it passed. Some teachers told the researchers that they had no feelings whether or not to participate in the process since their opinions did not play an important role. The principal also made the staff development plans as well the school's academic teaching plan.

Teachers.   An ideal teacher in the school was depicted as someone who had strong professional skills, was responsible for students, and was fair to each student, especially to low-performing students. The teachers in this school were evaluated mainly by their students' test scores, especially those scores from the two examinations: one was the county uniform examination, which was conducted once per semester, and the other was the monthly township uniform examination. The new curriculum reform had not changed the approach to teacher evaluation a lot, so teachers in the school still "taught to the test."

The school staff development plans were made two years ago or so by the principal. The focus was to catch up with the new curriculum reform. Teachers did not have many opportunities for off-campus professional development. The on-campus professional programs included peer observations. Each teacher was required to have two demonstration

lessons for peers to observe, and each teacher had to observe 20 other teachers' classrooms. Interestingly, when the researchers looked out of the window in a classroom, they saw the teaching coordinator standing outside writing something. Another time, the teaching coordinator looked in through the window. The researchers guessed that he was checking who was making a peer observation.

While observing classrooms, the observers found (1) not only the students but also the observed teachers were nervous when there were visitors; (2) the teachers were strict with students. When listening, students were required to have their hands behind their backs. In a fifth grade Chinese language class, after the whole class read the text, a girl was asked to answer a question, but she could not answer it. The teacher was a little angry. She then asked a boy to answer the question and kept the girl standing. After one of them finally got a correct answer, the teacher let both of them sit down. The teacher then asked another question; seven students stood one by one and kept standing there since no satisfactory answers emerged. After class, the teacher told the researchers that the students were too nervous, but the researchers thought that the question was not clear, and it was the teacher who made the environment unsettled; (3) teachers did not give each student equal opportunities to answer questions. A fourth grade boy and a girl were asked to answer questions five and six times, respectively. In a third grade class, the teacher frequently and pleasantly asked a boy in the front seat to answer questions. Later the researchers learned that the boy was the teacher's son; (4) a fourth grade boy, who sat close to the stove, was in charge of adding dry corncobs into the stove during the class. Although the student seemed to like doing this, the researchers

doubted how well he followed the teacher; and (5) students did not pay attention to other subjects as much as they did to math and Chinese language.

Students' School Life.   In the winter session, the first period of class started at 8:15 AM, but students were required to come to school at 7:30 AM for Zaozixi. From 8:15 to 9:45 AM they had two classes, each lasting 40 minutes, with a ten-minute break between. Then they had the third period of class, followed by a 25-minute break, which included exercise at the school playground and eye massages in classrooms. From 11:00 AM to 2:10 PM, they had four classes, with a 10-minute break between classes. Table 7.4 is the winter schedule of the school. A typical math class at this school is described on pages 302-303 in Appendix F.

Table 7.4 Schedule of the Shuguang School

7:30—8:15	Zaozixi
8:15—8:55	The first period of class
9:05—9:45	The second period of class
9:55—10:35	The third period of class
10:35—11:00	Break, including exercise and eye massages
11:00—11:40	The fourth period of class
11:50—12:30	The fifth period of class
12:40—13:20	The sixth period of class
13:30—14:10	The seventh period of class

There was no lunch break in the winter session. If a student was hungry, he/she could go to the school grocery to buy some snacks during breaks, or they could order some take-out food and had it during breaks. There was a clearly stated discipline policy in the school. Every Monday morning, the school announced the focus of discipline and hygiene for that week. The Daduifudaoyuan and students on duty were in charge of examining discipline and hygiene. Good classes got the weekly Flag Award. The Banzhuren would gain a credit if his/her class got the Flag Award. If students presented discipline problems, the Banzhuren,

the Daduifudaoyuan, and the school administration were responsible for solving those problems. Most of the time, the Banzhuren could solve the problems.

The researchers were told that students' achievement was important for parents. However, most parents paid attention to their children's test scores and class rankings, while only a few cared about their children's performance in the classroom and their homework. Only high-performing students cared about their test scores.

Basically, teachers were satisfied with their jobs at the school, as one teacher told the researchers, "I am basically pleased with my job in this school, but I am exhausted because of the overload of work." The students' list of best things at the school included (1) the school held parent meetings and open houses; and (2) the students liked the fact that they could drink mineral water. Parents concurred with these points. In addition, they listed two other things: one was that students had an English class from the first grade, and starting in third grade, there were computer classes. The other was that poor students were exempt from tuition.

Both students and their parents listed many "worst" things at the school. The common complaints included the following responses. (1) The school's physical condition was poor. (2) In winter, the heating system was bad so that the classrooms were cold. (3) The school was not safe. Students' things were sometimes stolen. (4) The school store sold food that had expired, affecting students' health. The salesperson was the principal's relative. (5) Some students' behaviors were bad, and they often cursed each other. Parents also indicated that the teaching was not effective in the computer class, and students' scores were greatly behind urban students. Students added that some teachers' attitudes toward students were bad. They never encouraged poor-performing students.

Comparisons of Ziqiang and Shuguang

There are both similarities and differences between Ziqiang and Shuguang in leadership, teaching, school conditions, and so forth. The similarities include:

- The school administration, mostly the principal, makes policy decisions such as the staff development plans as well as the school's academic teaching plan.

- The principal or the vice principal in charge of teaching frequently visit classrooms. After classroom observations, they give comments and suggestions for improvement.

- The principals arrived at the school early every day.

- The principals do not have power to hire a new teacher, who usually was assigned by the district office.

- The principals do not have high expectations of the students.

- The main problem with classes other than Chinese, math or English is that the students present more misbehavior since they do not attach importance to these courses.

- The major problem in an English class is that the teacher cannot pronounce English correctly and fluently.

- Students' test scores are extremely important in teacher evaluation. As a result, teachers teach to the test, and their teaching focus is knowledge mastery.

- Both school's libraries are not being used.

- Both schools' main teaching equipment is blackboard, chalk, and little blackboard. They also use simple tools such as rulers and set squares.

- Both schools do not have much sport equipment.

- Classroom heating depends on stoves so that sometimes it is cold in winter.

 The differences between the schools are as follows:

- All teachers share one office at Ziqiang while there are three teachers' offices at Shuguang.

- Ziqiang has a forty-minute noon break, but Shuguang has no lunch break.

- There are more principals at Ziqiang, and they have higher expectations for the students.

- The teachers at Ziqiang generally have better teaching skills than those in Shuguang.

- Ziqiang's students are more active in class. Shuguang's young students are active in class, but some older students are very nervous when there are visitors. Teachers may have overemphasized the presence of guests.

- The students at Ziqiang are more polite and enthusiastic (e.g., a student let one researcher to use his cushion).

- Students and their parents at Shuguang listed more "worst" things about the school than those at Ziqiang (e.g., students' things are sometimes stolen, and students often cursed each other).

**CHAPTER EIGHT: CASE STUDIES OF THE FOUR PAIRS
OF MORE AND LESS EFFECTIVE URBAN SCHOOLS**

This chapter presents the four pairs of case studies of urban schools. The first two

pairs of more and less effective schools, Yuren and Xuezi, and Xingfu and Anda, are reported

first, followed by descriptions of the last two pairs of more and less effective schools,

Changxing and Yongfa, and Jixing and Shengli. The first two pairs of schools have been

selected from District One, while the last two pairs of schools have been selected from

District Two.

The First Pair of More and Less Effective Schools—Yuren and Xuezi

Yuren Elementary School: The More Effective School

School Context.   Yuren Elementary was located in the residential area. There were

a main entrance and a small side entrance. When the researchers tried to enter the campus

from the main entrance, a female security guard stopped them. After they explained what

they were doing there, she permitted them to come in.

Upon entering the campus, the researchers noticed the school motto posted on the

right wall of the gate of the school building, which read: "People foremost, pursuit of

creation, and caring for others!" There was a bulletin board at the left side of the gate, on

which were posted the results of evaluations in discipline and sanitation for all classes.

When the researchers entered the three-story school building made of red bricks,

they saw a large mirror in the front of the hall. There were 16 Chinese words on the mirror in

large characters, which read: "We teach many things, among which the most important is to

teach the truth. You learn many things, among which the most important is to learn how to be

a person." On the right side of the wall were posted some newspapers which were written by

students. Some of the articles were about "living education," which was the school's research project. On the left side of the wall were hanging some pictures that captured the teachers' and students' activities in "living education." At the end of the first floor was a sink. This was the school's only sink, where there were three faucets. Everyone in the school had to go there to get water for cleaning the building or for personal hygiene.

The show windows on the second and the third floors had multiple themes such as portraits of ethnic Chinese and specimens of leaves. On the walls of the corridors were also posted scrolls that read: "Care for children's health. No smoking!"

Offices for teachers were divided according to subject, with approximately eight teachers sharing one office. There was a computer room with five computers for teachers on the first floor. At one time the school had a library. Since the library was too small and there was no full-time librarian, the books were distributed into each classroom and rotated once every other week. Students could borrow the books from their own classroom libraries. The computer lab had 30 computers, but nine of them were broken. Therefore two students usually shared one computer during computer class.

The school had 900 students and 58 teachers. Every morning the vice principal stood at a desk in the main hall to watch teachers sign in. There were three sign-in books on the desk: one for Banzhurens, one for other teachers, and one for staff. Staff had to arrive at 7:30 AM, Banzhurens at 7:40 and other teachers at 7:50. Most of the teachers arrived on time. Students were required to arrive at school at 7:40 AM for Zaozixi.

Every day several students and three teachers were on duty. They were stationed on each floor in charge of student behavior, safety, and hygiene on that floor. In the morning,

while other students were studying in the classrooms, those students on duty were also responsible for some cleaning, for example, wiping the staircase handrails with rags.

Principals.   There were one principal and one vice principal at the school. The principal was a middle-aged woman with short hair. She welcomed the researchers warmly when they visited the school for the first time. She told them that she was assigned to be principal three years ago. She loved being a principal in the school so much that usually she looked forward to coming to work at the school. She believed that as a principal she could have a substantial effect both on the teachers' ability to deliver effective classroom instruction and on students' academic achievement. She felt that there was a great deal she could do to insure that all of the students in the school achieved at a high academic level.

The vice principal, who was in her forties, was very considerate. For example, if she found a teacher was only two or three minutes late she would not criticize him/her. On March 8 the researchers found two Banzhurens who arrived three minutes late, but the vice principal did not blame them. The vice principal told the researchers that these two teachers had to send their children to daycares.

It seemed the principal was popular among students. Students always said hello to her when they met her on the campus, and she always responded warmly. On March 8, National Women's Day, one first grade girl gave the principal a pair of flowers. (One of the researchers also received a few flowers.) The principal was so happy that she picked up the girl and kissed her.

The principal treated the teachers as equals. As a result, the faculty played an important role in the school's decision making. A typical policy decision making process was

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(1) the administration (usually the principal) presented a proposal; (2) the teachers discussed it as a group and then submitted their opinions to the school administration; (3) the administration made a summary of the teachers' opinions and presented a new proposal; and (4) the teachers voted for the new proposal. The policy was set if there was no disagreement. Otherwise the process would be repeated until an agreeable consensus was reached. Some teachers told the researchers that they were willing to participate in the process because most of the issues were related to their benefits, for example, how to evaluate and promote a teacher.

Teachers decided upon their own teaching plans based on the district-level teaching plan together with their own teaching experience. The principal and the vice principal in particular often visited classrooms, especially those of young teachers. After making observations, they would critique the lesson and give advice for improvement.

As a public school, Yuren received financial aid primarily from the district office. The teachers at this school had been assigned by the district office, and the principal had no autonomous power to recruit teachers.

Teachers.   The school administration evaluated a teacher comprehensively rather than only using students' test scores. A comprehensive evaluation included teaching, essays, lesson preparation, homework grades, and students' test scores. Students' test scores were important in teacher evaluation, since the district used these scores to rank schools. However, the school also paid attention to how the low-performing students progressed.

While teachers prepared their students for the district examination, their teaching also focused on cultivating students' abilities, for example, communication abilities in

Chinese and English, calculation and reasoning in math, hands-on abilities, and so on. The staff development programs consisted of the following activities: (1) teachers could attend all kinds of district-, state-, and national-level workshops for further learning; (2) the school implemented a system of pairing master teachers and new teachers; (3) once per week the principal or an expert invited by the school gave a lecture on educational ideas, teaching strategies, and so on; (4) teachers regularly discussed a demonstration lesson; and (5) teachers regularly prepared a lesson collectively.

The researchers were impressed by classroom management at the school. In most of the classes they observed, very often the students sang a song before the bell rang for the beginning of class. After that, all the students stood up, bowed with their hands behind their backs and said, "Good morning (or afternoon), teacher!" The teacher responded, "Good morning (or afternoon), students!" During the class, the teacher often reminded their students to sit appropriately, which meant sitting straight and putting their hands behind their backs. If a student wanted to answer a question, he/she was expected to raise the right hand with the elbow on the desk.

The researchers summarized the methods that the teachers used to control a class' discipline. If a few students were distracted from listening to the teacher, the teacher would stare at them or ask them to answer a question. If many students did not behave well, especially when a group discussion was involved, the teacher would say loudly, "One, two, three!" Students would respond quickly, "Sit well quickly!" Then the class would be quiet.

Teachers had high expectations for their students, were strict with students, and paid attention to individual differences and students' thinking processes. Almost all the Chinese

teachers asked the students to prepare for a class beforehand so that the class often began with a question such as what was the main idea of the text. All the math teachers that the researchers observed often reminded their students to use rulers to draw a line. In three classes the researchers observed that the teachers asked the students to remain standing for a while if they could not give a correct answer to a question. In a third grade math class, when two students finished the assigned exercises, the teacher asked them to do some extra exercises while waiting for other students to finish. In a first grade math class, when a boy said that twelve minus four should equal three, the teacher asked him to explain his thought process and then told him where he was wrong.

Students' School Life.   The first period class started at 8:00 AM, but students were required to attend Zaizixi at 7:40 AM. From 8:00 to 9:30 AM, they had two classes with a ten-minute break between them, each class lasting 40 minutes, followed by a 25-minute break, which included exercise on the school playground. Then they had the third period class, followed by a 10-minute break, which included eye massages. After the fourth period class, students had a one hour break. From 12:30 to 2:55 PM, they had three more classes with ten- or fifteen-minute breaks between them if the breaks included eye massages. Table 8.1 shows the winter schedule of the school. A typical math class at this school is described in detail on page 303 in Appendix F. In a summer session, the lunch break was one and a half hours so that students were released half an hour later than in winter.

There was a clearly stated discipline policy, but it was not implemented strictly. For example, students were not allowed to run or jump in the hallway, but if a student did, he/she was not punished, since the teachers thought that they were too young to control themselves.

If a student presented a discipline problem, the persons responsible for solving the problem included the student's Banzhuren, the Daduifudaoyuan, and the teachers on duty.

Table 8.1 Schedule of the Yuren School

7:40—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30—9:55	Break, including body exercise
9:55—10:35	The third period of class
10:35—10:50	Break, including eye massages
10:50—11:30	The fourth period of class
11:30—12:30	Lunch Break
12:30—13:10	The fifth period of class
13:20—14:00	The sixth period of class
14:00—14:15	Break, including eye massages
14:15—14:55	The seventh period of class

During breaks students were asked to do outdoor activities. The playground was divided into different areas according to grade, and the Banzhurens watched their students. Students returned to the playground as soon as the bell rang. Students could go home for lunch. If they had lunch at school, they ate at their own seats with no talking. The teacher did not have lunch with the students. Most students obeyed the rule, but occasionally some students talked.

The school sometimes organized extracurricular activities. For example, the researchers learned that all the students would go on a spring outing in early April. The school also had different kinds of clubs such as Computer Club and Art Club.

Generally all of the teachers at the school were satisfied with their jobs, but they hoped that the school would improve their benefits. As one teacher said, "I have worked in this school 13 years, but my salary is very low (monthly 1500 yuan, about $181).

The best things about the school that students listed were summarized as follows: (1) teachers cared for all of the students, no matter their academic performance. They were

responsible and always taught patiently; (2) in math class the teacher not only delivered knowledge but also used games to make the class lively and interesting; (3) each class had a computer and television; and (4) the heating system was good so that classrooms were warm. Students also listed some of the worst things about the school: (1) it was too cold to go to the outside restrooms in winter; (2) the playground was too small, and there was not enough equipment for sports; and (3) some desks were old and dirty, and there were holes on them.

Parents also expressed their opinions about the school and the teachers in particular: (1) the teachers loved their students, and they did not discriminate against any students; (2) language and math teachers had excellent teaching skills, and they carefully graded students' homework; (3) teachers reported students' tests scores in a timely manner; and (4) they often communicated with parents about students' performance at school.

Xuezi Elementary School: the Less Effective School

School Context.   Xuezi Elementary School was located in a market community. A small school gate led visitors to the campus. Some awards were hanging beside the gate. The old five-story school building was surrounded by a blue iron fence. Behind the building was the playground, where there were five double bars, twelve single bars, and a pair of basketball frames.

Upon entering the building, guests could see a sentence on the left hand side of the wall in the hallway: "With light steps and friendly greetings, we welcome a new day of wonderful school life!" The right hand side was the window of the clock-in room. The persons inside were very careful. They interrogated all visitors. After they made a telephone call to check, they would allow visitors to come in. The second door led to a foyer. A map of

the school was posted on the wall directly ahead. Above the map were six Chinese characters, representing unity, diligence, and creativity.

On the second floor, signs were posted on one side of the hallway, which listed "Secondary and elementary students' class rules," "Elementary students' daily behavior rules," and "Elementary students' regulations." The other side of the wall had a poster which read "Competition for famous students in Xuezi" and contained pictures of and introductions to the school's excellent students.

The theme for the posters in the hallway of the third floor was the "cross stitch" exhibition work done by teachers and students together. There were also portraits of famous Chinese people. Teachers' reminders to students were also on the wall such as, "The less you laugh and chat in the hall, the more people can enjoy silence and pleasure." The fourth floor's hallway had framed works of paintings and calligraphy by students. Color paintings and pencil sketches by students were on the wall of the fifth floor.

The heating system in the hallway was covered with blue fabric to keep the radiators clean. The floor was made of tiles and kept clean by students.

The school had a computer lab, science lab, and infirmary. The computer lab had 54 computers. Each class had two computer classes every week. At one time there was a library with some old books, but now the library was closed because of budget constraints. Because the school was near one of the public libraries in the city, once every month each class spent one afternoon in that library.

This school had 1197 students and 53 teachers. The teachers' offices were divided according to subject. Each office contained six to ten teachers and one computer. All students

were required to come to school for Zaozixi at 7:40 AM. Teachers who led the morning study had to come to school by 7:30. Other teachers had to arrive at school by 7:50. However, most Banzhurens came to school at 7:10 and organized their students to clean the classroom, because students on duty examined and evaluated hygiene in each class. All the teachers were required to sign in. After 7:50 the vice principal used the sign-in sheet to check the teachers' attendance. The entire school had only one teacher on duty. She came to school by 7:30 and checked the whole building. At the stairs on each floor, there were several students on duty selected from each class. In the morning before the first class started, during breaks, and at the dismissal period, they were on duty and reminded students to walk gently on the right side of the hallway.

Principals.   There was one principal as well as one vice principal who was in charge of teaching in the school. The principal, who was in her thirties, was assigned to this school to be principal six years ago after she had been principal for five years in another school. When asked "How did you feel about your assignment to the school before coming here?" she replied that she had no feelings. She believed that as a principal she could have some effect both on the teachers' ability to deliver effective classroom instruction and on students' academic achievement.

The principal played a dominant role in the school's policy decision making. Although teachers participated in the decision process through the teacher representative meeting, the school administration's opinions were extremely important, and they made the final decisions. Since some teachers did not think it was very democratic, they did not want to participate or they did not care what policy would be made.

The principal and the vice principal more often visited young teachers' classes and provided instructional assistance. "Because I have rich teaching experience, the principal seldom gives me guidance on teaching," said a math teacher. The researchers noticed that after the observation the vice principal liked to point out directly the teacher's weaknesses. The researchers asked if the teacher would like to accept the direct response. The vice principal told them, "That's the purpose of my observation. I need to tell them where they should improve."

Teachers.   The "ideal teacher" at the school was described by the teachers interviewed as someone (1) whose teaching skills were good, and teaching postures were appropriate; (2) whose teaching could arouse students' interest in studying, which was important for improving students' test scores; and (3) who was knowledgeable. In reality a teacher was evaluated mainly by students' test scores. The new curriculum reform had not much changed the approach to teacher evaluation in the school. One teacher told the researchers that students' test scores constituted 90% in teacher evaluation, another said 95%, and the third one even said 100%. Therefore the teachers at the school "taught to the test." Some of them argued that they had to do so because students' test scores were used to compare and evaluate teachers.

With the grade level teaching plan, which was based on the school teaching plan and followed the district level plan, the teachers' instruction focused on knowledge mastery. Teachers said that there was a conflict between what the new curriculum reform advocated and the teacher evaluation criteria—mostly students' test scores. If only the evaluation criteria were changed, teachers and students could experience more teaching and learning. The focus

of staff development at the school was to keep teachers' skills current such as in foreign language and computer training. The school also subscribed to teaching journals and let teachers read them regularly.

Like the teachers in Yuren, the teachers in Xuezi were strict with students in the classroom. Most teachers often reminded their students to sit straight. Some teachers required the students to hold the books in an upright position while they read a text. Also, as in Yuren, there were more discipline problems in non-math and non-Chinese classes, and the teachers assigned to these courses were not professionals. When the researchers entered a third grade science class, they were surprised: the teacher was the same one the researchers observed in a Chinese class the previous day. The teacher told the researchers that she was temporarily teaching science because there were no science teachers at the school. She also told the researchers that she focused more on her Chinese teaching so that she was not quite familiar with the science content. The researchers then understood why she did not recognize that a boy's example did not match the content. In a second grade English class, the researchers found that the teacher spent much more time managing the classroom discipline than in a math or Chinese class, and finally the teacher became angry. When the class was over, the Banzhuren came in to organize the students to do eye massages. The class became quiet. The researchers sensed strongly that the students were afraid of the Banzhuren!

The researchers found that the teaching quality at Xuezi was not as good as at Yuren. A fourth grade math class centered on the relationship between a trapezium and a parallel parallelogram. The teacher used a chart to demonstrate the relationship; however, the chart she drew was incorrect. Fortunately the principal was also observing the class, and she told

the teacher where she made a mistake. In a third grade Chinese class, the teacher mispronounced a word. She also did not correct a boy who mispronounced another word while he read the text.

Students' School Life.   The first period class started at 8:00 AM. From 8:00 to 9:30, students had two classes with a ten-minute break between them, each class lasting 40 minutes, followed by a 15-minute break, which included exercise in the school playground. Then they had the third period class, followed by a 10-minute break, which included eye massages. After the fourth period class, students had a 95-minute break. From 12:50 to 4:00 PM, they had another four classes with a ten-minute break between classes. Table 8.2 shows the schedule of the school. A typical math class at this school is described on pages 303-304 in Appendix F.

The researchers were told that during a cold day there was no exercise on the playground, so this schedule was not strictly implemented. Between classes, students were required to play on the playground. Students stood in lines according to classes and entered their classrooms after the bell rang. They wasted class time by not moving quickly. Some students continued to talk after they entered their classrooms. The teacher was forced to call for silence more than three times.

Most students ate at school. The school required a Banzhuren to have lunch in the classroom with students. Students were required to sit in their own seats and be quiet, but some students still moved around. There was a clearly stated discipline policy. If a student presented discipline problems, the Banzhuren was responsible for solving them. If the problem was serious, the Banzhuren would contact the parents.

Table 8.2 Schedule of the Xuezi School

7:40—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30—9:45	Break, including the body exercise at the school playground
9:45—10:25	The third period of class
10:25—10:35	Break, including massages to preserve eyesight
10:35—11:15	The fourth period of class
11:15—12:50	Lunch Break
12:50—13:30	The fifth period of class
13:40—14:20	The sixth period of class
14:30—15:10	The seventh period of class
15:20—16:00	The eighth period of class

Academic achievement was important to students, partly because their parents had high expectations of them. In a first grade Chinese class, when the teacher asked the students a question based on the text ("How do you think you should love your parents?"), one student answered, "Entering a good university!" Most parents hoped that their children's future life would be changed so that they would not have to do manual labor. However, some parents were too busy (doing small business in the market) to pay attention to their children's study. Another reason that academic achievement was important to the students was the teachers liked those students whose test scores were better.

The best things about the school that students and their parents listed included (1) some teachers sacrificed their lunch break to help students with their studies; (2) Open Houses were held regularly so that parents could observe classroom lectures; and (3) after dismissal teachers escorted students to the gate and waited until their parents picked them up. The worst things that students and their parents listed about the school could be summarized as (1) the school condition was poor: the playground was too small, not enough P.E equipment was available so that a P.E. class was boring, the school computers were old, the restrooms' hygiene was terrible, the water was often cut off, and the sewage could not be

flushed; (2) sometimes, especially before the final exam, students only had math and language classes; and (3) some teachers were biased against low-performing students.

Comparisons of Yuren and Xuezi

There are both similarities and differences between Yuren and Xuezi in terms of leadership, teaching, school conditions, and the like. The similarities can be summarized as follows:

- The principal and the vice principal in particular often visit classrooms, and they give advice for improvement after making observations.

- In both schools teachers are strict with students in the classroom, and they use similar methods to maintain discipline in the classroom.

- The playground is too small.

- There is not much sports equipment.

- Desks and chairs are old.

- Restrooms are not clean or convenient to use.

There are also differences between the two schools:

- The faculty plays an important role in the school's decision making in Yuren, while in Xuezi the principal plays a dominant role in the school's policy decision making.

- Teachers in Yuren are evaluated comprehensively, so that the teaching focuses on both knowledge delivery and cultivating students' abilities. In Xuezi, teachers are evaluated mainly on the basis of students' test scores. As a result, teachers' instruction primarily focuses on knowledge mastery.

- Yuren's teachers have better teaching skills than Xuezi's.

- Teachers at Yuren pay attention to individual differences while Xuezi's teachers often ignore them.

- Most of the Yuren's teachers treat students equally in spite of their academic performance. In Xuezi some teachers are biased against low-performing students

- Xuezi's students display worse behavior in class.

The second pair of less effective and more effective schools—Xingfu and Anda

Xingfu Elementary School: the More Effective School.

School Context.   Xingfu Elementary School was located at the intersection of two streets. The area surrounding the school was mostly residential. A small entrance led visitors to the campus, where they could see the school building, outdoor restrooms, and the playground. The playground was paved with tar, and on it there was some old sports equipment such as two basketball frames and double bars.

The five-story school building had only one gate. On the right side of the gate was a "Money Clarification" board which stated clearly all the programs that collected money. On each floor, in the middle between the flights of stairs, there was a couplet in Chinese on the wall. For example, the couplet between the first and second stories stated: "The school is splendid because of you!" The one between the second and third stories read: "The school's beauty needs your protection," accompanied by a plaque which read: "No smoking!" In the narrow hallways, which were not wide enough for three people to walk side by side, hung posters with a different theme for each floor. For example, the first floor's theme was the

campus star, showing each class had some exceptional students in some areas. The classrooms were distributed across all the floors. A bronze class plate (indicating grade and class) hung on the wall in front of each class. Besides the grade and class, each class was named for a different hero, such as Leifen, Dongchunrui, and Qiu Shaoyun.[25] The researchers observed that almost half the classes were called Leifen, a hero who was popular since the 1960's.

There were 1116 students and 68 teachers. The teachers' offices were arranged by grade, where there were desks, chairs, and cabinets, but with no computers. The school did have a computer lab on the fourth floor with 30 computers that were purchased seven years ago. The lab teacher told the researchers that the computers were old and could only be used for typing.

Principals.   The principal, who was in her forties, was assigned to the job eight years ago. She told the researchers that she loved being the principal for the school, and she usually looked forward to coming to work. She believed that as a principal she could have a substantial effect both on the teachers' ability to deliver effective classroom instruction and on students' academic achievement. She felt that there was a great deal she could do to insure that all of the students in the school achieved at a high level. In addition to the principal, the school also had two vice principals, who were in charge of teaching and non-teaching matters, respectively. The vice principal, who was in charge of teaching, often observed classrooms. After observing, she gave concrete advice for improvement.

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[25] They are Chinese heroes. The school wants the students to learn from these models.

The school's policy decision making was democratic. The principal usually presented a proposal, and the representative teachers determined if it was approved or not. Some teachers told the researchers that they were willing to attend the annual teacher representative meeting, since the representatives could propose suggestions.

As a public school, Xingfu received financial aid primarily from the district office. The teachers at this school had been assigned by the district office, and the principal had no autonomous power to recruit teachers.

Teachers.   The school's administration evaluated a teacher mainly by a demonstration lesson and the students' test scores from the once-per-semester district level examination. A demonstration lesson was used to see how a teacher organized a class, how the students were engaged, and so forth. Since teacher evaluation did not rely entirely on students' test scores, the teachers had changed from "taught to test" to "teach for students' well rounded development." Using their own teaching plans, which were based on the curriculum standards and the district teaching plan, teachers' instruction focused on cultivating students' hands-on abilities, students' abilities in calculating and analyzing math problems, and students' learning interests. "I pay attention to improving students' abilities, which will naturally lead to a good test score," said one teacher. This sometimes was interrupted by exam preparation.

The staff development programs included (1) some teachers participated in the national self-learning examinations to get a bachelor's-equivalent certificate; (2) the schools sent teachers to attend different learning and training workshops at the district, state, and

national level; and (3) the school required teachers to write daily and weekly teaching journals, which they shared once a week.

Teachers encouraged students to help each other in the classroom. In a second grade Chinese class, when the teacher asked the students if they had read the text before class, the class answered yes. Then the teacher asked the leader of each group to use cards containing words to examine how the group had prepared for the class. If a student did not read a word correctly, the other group members corrected him/her.

As at other schools, the teachers at this school used the slogan method to control the classroom: Whenever the classroom was disorderly, the teacher would shout, "One, two, three." The students would quickly respond, "Sit down immediately," or, "Be seated appropriately." And then they did behave well. The researchers concluded that this method was typical in elementary schools. In addition the researchers found a unique classroom management method. In a third grade math class, when the teacher saw that the students did not behave well, she said, "Number three posture!" "Number two posture!" "Number one posture!" The students changed their posture from their original state to the one where they sat straight with their hands on the desk and finally to the expected posture where the students sat straight with their hands behind their backs.

Another unique thing that the researchers observed at Xingfu Elementary school was that they saw some teacher-made teaching instruments such as squares, rectangles, and circles, which were made by a math teacher. She told the researchers that she had been teaching students from grades one to three for 15 years, and she knew exactly what kind of instruments were needed for a specific content.

The teachers gave opportunities to all students to answer questions, especially in a math class. In a fifth grade math class the teacher asked a boy to go to the blackboard and write an answer to a problem. When the boy did not know how to do it, the teacher gave some hints. He still could not figure out how to solve the problem. By this time quite a few students raised their hands, and some said, "I can do it." The teacher replied, "I still want him to do it." She then gave some more hints, and finally the boy solved the problem correctly.

The researchers observed that the teaching problems at this school existed in non-math or non-Chinese classes. Since the school focused its teaching on math and Chinese classes, these "minor" courses were relatively ignored. A middle-aged teacher told the researchers that she had taught math for many years, but she was assigned to teach science half a year ago when the school opened the science course. The researchers observed that about half of the students did not listen to her while she lectured. The worst class as defined by the researchers was a third grade moral education class. The teacher could hardly control the class: some students stood up and walked around; some were seated but chatted with their neighbors. Only a few sitting in the front lines listened to the teacher. It seemed that the teacher was used to it. She ignored these and continued lecturing. Later she complained to one of the researchers that students did not attach importance to this course and some of the parents did not encourage their children to carry the books for this course. [26]

Students' School Life.   The first period class started at 8:00 AM, but students were required for Zaozixi at 7:50. From 8:80 to 9:30, they had two classes with a ten-minute break between them, each class lasting 40 minutes, followed by a 20-minute break, which included

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[26] In China, textbooks become their property after students pay. Every day they must carry the books they will use that day to school.

exercises at the school playground. Then they had the third period class, followed by a 15-minute break, which included eye massages. After the fourth period class, students had a one hour and five-minute break. From 12:30 to 3:45 PM, they had another three classes with ten- or fifteen-minute breaks between classes if the break included eye massages. Table 8.3 shows the schedule of the school. A typical math class at this school is described on pages 304-305 in Appendix F.

Table 8.3 The Schedule of the Xingfu School

7:50—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30—9:55	Break, including body exercise
9:55—10:35	The third period of class
10:35—10:50	Break, including eye massages
10:50—11:30	The fourth period of class
11:30—12:30	Lunch Break
12:30—13:10	The fifth period of class
13:20—14:00	The sixth period of class
14:00—14:15	Break, including eye massages
14:15—14:55	The seventh period of class
15:05-15:45	The eighth period of class

If students presented discipline problems, the teacher in whose class the student had the discipline problem, with the help of Benzhuren, was responsible for solving the problems. If the problem was serious, the school administration would deal with it.

The best things that students and their parents listed about the school were as follows: (1) poor students did not need to pay tuition; (2) the school had open houses for parents; (3) the school awarded students with good test scores; (4) students' behavior was good (few students screamed in the hall); (5) after dismissal teachers accompanied students crossing the street to guarantee their safety; (6) teachers often communicated with parents so that parents could know in a timely manner how their children were performing at school;

and (7) the school had a suggestion box for parents. Students and their parents expressed that the worst things about the school were that the restrooms were outside, and that the school did not have a library.

Anda Elementary School: The Less Effective School

School Context.   Anda Elementary School was located in a business area. On one side of the gate there was a little door, and beside it was the sign-in room. An old man working in the sign-in room did not ask the researchers many questions before he allowed them in.

Entering the gate, the researchers saw a small playground. There were a flag and stage on the playground. Behind the stage was the old four-story school building, with an old dirty slide beside it. This was the only recreation equipment for students in the entire school, but the researchers were not sure whether students could play on it due to its bad condition.

Upon entering the building, the researchers saw the school motto hanging on the wall, which read: "Honesty, diligence, and health!" On the right side of the main hall was the principal's suggestion box, and on the left side of the hall was a board listing an invoice for the miscellaneous fee, the information technology education fee, the heating fee, the book fee, and the after-school class fee.

At both ends of each hallway hung a board, which read, "Silence!" On the walls along both sides of each hallway were posted art works. Each floor had its own theme such as photos of Chinese heroes on the second floor and classical stories on the fourth floor.

The school had a computer lab, but some computer classes were taught in a public computer bar. The principal explained that the computers in the lab were not enough for all

the students to use. Teachers' offices were divided by grades, and each office had one computer. This school had a library, but students reported that it was seldom used. When the researchers asked to go in and look, the principal refused. They peeked in from outside and found that the library was small and contained few books.

The school had a total of 1197 students and 54 teachers, including two music teachers, two P.E. teachers, and two art teachers. The first class started at 8:00 AM, but students were required to arrive at 7:40 for Zaozixi. Usually the math, Chinese language, and English teachers led the Zaozixi, and they were required to come to school by 7:35. Other teachers had to arrive by 7:50. Teachers were required to sign in. Each day the principal used the sign-in sheet to check the attendance of teachers. As the researchers observed, an average of eight student and two teachers were late each day.

Principals.　The school had one principal and one vice principal, both female. The principal, who was in her fifties, was responsible for all the events in this school. The vice-principal, who was in her forties, was in charge of teaching. The principal was assigned to the school six years previously after she had been the principal at another school for nine years. When asked, "How did you feel about your assignment to the school before coming here?" she replied that she had no feelings. She believed that as a principal she could have a substantial effect on the teachers' ability to deliver effective classroom instruction, but she did not think that she could have much effect on students' academic achievement. She disagreed with the statement, "There was a great deal I, as a principal, could do to insure that all of the students in the school achieved at a high level."

The school's policy making was done mainly by the principal in spite of the teacher representative meeting. Staff development plans were also made by the principal. The vice principal visited classrooms frequently. After making observations, she gave concrete advice for improvement. The principal visited young teachers more frequently. "The principal critiqued my lecture and gave advice after her observations," said one young teacher.

As a public school, Anda received financial aid primarily from the district office. The teachers at this school had been assigned by the district office, so the principal had no autonomous power to recruit teachers.

Teachers. The ideal teacher at the school was described as someone who (1) could arouse students' desire for knowledge; (2) was knowledgeable; (3) employed different teaching methods for different students; and (4) had a good relationship with students. In reality the school administration primarily used students' test scores to evaluate teachers, along with demonstration lessons. The new curriculum reform had hardly changed the approach to teacher evaluation in the school because the district office still used students' test scores to compare schools in an exam-driven system. As a result most teachers at the school "taught to the test" with basic knowledge as a teaching focus, although they knew it was important to foster students' abilities. "I don't want to, but I have to because test scores are a main indicator for comparing schools and thus for teacher evaluation," one teacher said. Another teacher explained further, "I also pay attention to hands-on activities; however, sometimes I can't do it when we are busy for exam preparation."

There were three levels of teaching plans: the district's, the school's, and those of the teachers. Teachers made their own teaching plans, but the staff development plans were

made by the principal, and their professional development was lacking because they were required to teach so many classes. Occasionally the school sent teachers to various workshops to receive training. When asked for her opinion of the staff development program at the school, one teacher said, "Not very good. For example, we realize that both young and senior teachers should learn how to use multimedia to teach, but we did not do well."

The researchers observed some phenomena in the classrooms. First, teachers encouraged students to help each other. In a fifth grade math class, after the students finished four math problems, the teachers asked students to examine each other's answers to see if there were mistakes. She then asked some students who solved the problems correctly to help those who did not know how or who made a mistake. In a third grade Chinese class the teacher asked students sharing the same desk to test each other on whether they memorized the text.

Second, teachers often tutored students. A fourth grade girl did not know how to do the math problems on the blackboard since she missed school the day before. The teacher said to her: "I'll give you tutoring after class." They then set a time for the tutoring. A second grade math teacher commented on students' homework the day before. She told three students who made too many mistakes to come to her for extra tutoring after class.

Third, teachers were strict with students with regard both to behavior and studies. A fourth grade boy quickly responded after the teacher asked a math question, but the teacher interrupted him and said seriously, "You should raise your hand first before you replied!" Almost all the teachers required students to write neatly and clearly. In math classes, teachers often reminded their students to use rulers when they drew a line. A fourth grade math

teacher asked a student to answer a question, and the student gave a wrong answer. The teacher said to him, "You have made a same type mistake twice. How you can make that happen!" The boy seemed to feel uneasy. In a fifth grade Chinese class, a boy was asked to answer a question. He stood up, put his hands on the desk, lowered his head, and answered the question. The teacher stopped him, mimicked his action, and asked, "Is it good if I lecture this way?" The boy smiled and raised his head.

Finally, students had more discipline problems in non-math or Chinese classes. In a sixth grade English class, the class often fell into chaos. Some students kept talking, some fought each other, and one student slept ten minutes. The young teacher sighed. It seemed she was not good at managing a classroom. What she did was to threaten the students by saying, "If you do not stop talking, I'll tell your Banzhuren, and she'll punish you." The researchers thought that the bad classroom behavior was related to the teacher's poor instruction. Once she asked students to do the exercises in the book while they listened to a tape. However she put the wrong tape on so that the content of the tape did not match the exercises. This, of course, caused confusion.

Students' School Life.   The content of the Zaozixi was often related to what the students learned the day before or what they would learn that day. For example, a fifth grade math teacher asked the students to do some math exercises in the book during the Zaozixi, and they continued to work on the exercises when the first class began, since it was the teacher's class. The first period class started at 8:00 AM. From 8:00 to 9:30, they had two classes with a ten-minute break between them, each lasting 40 minutes, followed by a 20-minute break, which included exercise on the school playground. They then had the third period class,

followed by a 15-minute break, which included eye massages. After the fourth period class, students had a one hour and 25-minute break. From 12:50 to 4:00 PM, they had another four classes with ten-minute breaks between classes. Table 8.4 shows the schedule of the school. A typical math class at this school is described on pages 305-306 in Appendix F.

Table 8.4 The Schedule of the Anda School

7:40—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30—9:50	Break, including the body exercise at the school playground
9:50—10:30	The third period of class
10:30—10:45	Break, including massages to preserve eyesight
10:45—11:25	The fourth period of class
11:25—12:50	Lunch Break
12:50—13:30	The fifth period of class
13:40—14:20	The sixth period of class
14:30—15:10	The seventh period of class
15:20—16:00	The eighth period of class

Students were required to play in the playground between classes. After the bell rang students stood in lines according to class and entered the classrooms. Most students went home for lunch. Those who did not go home ate at a restaurant nearby. The researchers visited the restaurant. It was clean. The school did not allow teachers to go home for lunch. They had lunch at another restaurant.

There was a clearly stated discipline policy at the school, but it was not strictly implemented. If students presented a discipline problem, they were sent first to their Benzhurens. If the problem was serious, the Banzhuren contacted the parents.

The best things that students and their parents listed about the school were that the school had a cafeteria, and that teachers were strict with students' behaviors in class. They also listed the worst things. First, the school building was not in good condition: restrooms were outside and unclean, the playground was small and messy, students had computer

classes in a public computer bar, and chairs and desks were old. Second, teachers were not always competent. For example, one student said that during the final exam, his math teacher wrote the answer to one problem on the board because the teacher once taught this problem wrong. Finally, discipline was a problem. Some students fought frequently.

Comparisons of Xingfu and Anda

There are similarities between these two schools in leadership, teaching, school conditions, and so on:

- The principals (or vice principals) in the two schools often observe classrooms. After making observations, they give advice for improvement.

- Teachers in both schools often tutor their students, are strict with students in both behaviors and studies, and employ similar methods for managing classroom discipline.

- In both schools students exhibited more discipline problems in non-math or Chinese classes.

- Both schools are in poor condition. In Xingfu the students and their parents complain about the outdoor restrooms and the library, while the teachers hope that their benefits can be improved. In Anda, the students and their parents complain about the playground, restrooms, and computer lab.

The schools also differ in several ways:

- In Xingfu the school's policy decision making is democratic, while in Anda the school's policy making is done mainly by the principal.

- Anda relied more on students' test scores than Xingfu for evaluating teachers so

that teachers in Anda focus more on knowledge delivery and test preparation.

- Xingfu's teachers are better than Anda's in lecturing.

- Students classroom behavior at Anda is much worse than at Xingfu.

The Third Pair of More and Less Effective Schools—Changxing and Yongfa

Changxing Elementary School: The More Effective School

School Context.   Changxing Elementary was behind a church, so the environment was quiet. The school had two entrances. The main entrance was open only in the morning. At other times the side entrance, which was beside the main entrance, was the only channel to and from campus. As visitors entered the campus they could see a basketball rim, two monkey bars, and a flag standing on the playground.

Upon entering the four-story building visitors could see an electronic direction indicator hanging in the middle of the hall. On the indicator was an electronic clock, which alternatively showed the time and the school motto: "The school aims to do everything for students." On the right side of the hall there were woodcuts of the 56 Chinese ethnicities, the son of the people (Deng Xiaoping), the world's cultural heritages, five thousand years of Chinese culture, and traditional Chinese paintings. On the left side were introductions to the best teachers at the school. The contents of the posters on the corridor's walls were changed once a semester and revolved around such topics as patriotism education, collectivism education, and health education.

There was a red display case at each staircase where visitors could see sentences posted such as: "The teachers with smile are the prettiest," "All children are cute," and "The children who dared to question authorities were the loveliest ones". The main office, the

principal's office, and the six teachers' offices (arranged by grade), were located on the second floor. On the third floor was located the library, and it had roughly 10,000 books in science, classics, children's literature, and so on, but it was not open very often because the librarian was busy teaching Chinese language. On the fourth floor was located the computer lab, which contained 36 computers. The lab was spacious and air-conditioned. In order to keep the room clean students had to cover their shoes with plastic before they entered the room. There were 900 students and 72 teachers at the school, and they were required to arrive at school by 7:40 AM every day.

Principals.   Besides the principal there were two vice principals, who were in charge of teaching and non-teaching matters, respectively. The principal, who was in her forties, was promoted three years ago from vice principal. When asked if she usually looked forward to coming to work at the school her answer was "Yes, very much." She believed that as a principal she could have a substantial effect both on the teachers' ability to deliver effective classroom instruction and on students' academic achievement. She felt that there was a great deal she could do to insure that all of the students in the school achieved at a high level.

The principal often visited the classrooms of new teachers who were assigned by the district office, as well as of those teachers who were being considered for promotions by the school administration. She also observed each teacher's demonstration lessons.

The principal encouraged teachers to be involved in the school's decision making, and she valued their opinions. Teachers participated by three approaches. (1) At the beginning of each semester the principal initiated an activity called "sound suggestions" to encourage teachers to propose suggestions for school improvement. (2) Once a semester the school held a

Teacher Representative Meeting. At the meeting teachers could propose ideas. If the suggestions were reasonable the principal would adopt them. (3) Whenever a teacher had any ideas, he/she could go to the principal. The researchers were told that the redesign of the cafeteria was based on teachers' opinions.

The researchers found that the principal came to school very early. Whenever she saw a teacher or student coming, she said "hello" to them. A teacher told the researchers, "The principal often communicates with us. I would like to tell her any new teaching ideas that I have in mind. I feel comfortable while working here."

Teachers.   The ideal teacher at the school was described as someone who was responsible for students, loved students, made students enjoy studying, had excellent teaching skills, was knowledgeable, patient, and creative in teaching methods. Before the new curriculum reform the teachers whose students had good test scores were regarded as excellent, but now the test scores were only part of the evaluation system. The school administration considered a teacher from all aspects, and so the evaluation was done from a comprehensive perspective. For example, classroom observations were used in the process. Since the evaluation results were not linked to reward/punishment, teachers did not really "teach to test." This did not mean that they did not pay attention to students' test scores. Instead many teachers believed that test scores might reflect teachers' teaching abilities and students' academic levels. After an exam the teachers stayed together to discuss students' papers to see what problems the students had.

Each teacher had a portfolio. It included a 3-5 year professional development plan, annual teaching content, and so on. The staff development programs included (1) each Tuesday

the teachers teaching the same grade discussed the lesson plans together; (2) the school invited experts to campus to give lectures on computers, foreign language, new educational ideas, and teaching strategies; and (3) the school occasionally sent teachers to Beijing or other cities to visit key elementary schools or attend a conference or a workshop, although these opportunities were rare. A fortunate teacher told the researcher, "We can attend teachers' professional training at the provincial-, city-, and district- level workshops. Last year I went to Beijing to visit a key elementary school, and I learned a lot."

In at least three Chinese language classes the researchers observed that the students evaluated both their peers and the teachers after they read a text. The teachers encouraged the students to do this, and one teacher suggested doing an evaluation from three aspects: accuracy, fluency, and enthusiasm. Teachers also advocated a system of student mentors. The students who shared one desk usually recited a text or read words to each other. If one of them did not know how to read a word correctly the other one would help him/her.

Teachers nevertheless were also strict with students. In a second grade math class, after the students turned in their homework, the teacher found that a boy did not complete his homework as required. She was so angry that she asked the boy to stand for a while even after she started lecturing. In a third grade math class a student sat and asked the teacher a question. The teacher said to him, "Please stand up. How can you speak to a teacher while being seated?"

A third grade Chinese language class impressed the researchers. First, they were surprised when they heard the students and teacher say "hello" in English. Second, the teacher was extremely patient with students. One student did not pronounce a Chinese word correctly. The teacher corrected him with patience and told him that she believed he could do it. After

practicing several times, the boy finally pronounced the word perfectly. Third, the teacher

taught students how to learn. She suggested that students mark the words that they could not

read perfectly so that they knew which words needed more practice.

It seemed teachers had an excellent relationship with students. For example, one

math teacher would go to Beijing for a conference, and the class of fifth graders had a farewell

party in the classroom for her in the morning before the first class started.

Students' School Life.   The first period class started at 8: 00 AM, but students were

required to come to school by 7: 40 for Zaozixi. From 8: 00 to 9: 30, they had two classes,

each lasting 40 minutes, followed by a 30-minute break, which included exercise on the

school playground. Then they had the third period class, followed by a 10-minute break,

which included eye massages. After the fourth period class, students had a two-hour lunch

break. From 1:30 to 3:00 PM, they had the fifth and the sixth periods of class, followed by a

10-minute break, which included eye massages. Then they had the last class of the day. Table

8.5 shows the school schedule. A typical math class at this school is described on page 306 in

Appendix F.

Table 8.5 Schedule of the Changxing School

7:40—8:00	Body exercise at the playground
8:00—8:40	The first period of class
8:40-8:50	Break
8:50—9:30	The second period of class
9:30—10:00	Break, including body exercise at the school playground
10:00—10:40	The third period of class
10:40—10:50	Break, including eye massages
10:50—11:30	The fourth period of class
11:30—13:30	Lunch Break
13:30—14:10	The fifth period of class
14:10—14:20	Break, including eye massages
14:20—15:00	The sixth period of class
15:00—15:10	Break
15:10—15:50	The seventh period of class

During a break the students would line up and walk back to their classrooms after they heard the bell ring. The students decided freely whether to have lunch at school or eat at home. One teacher and several students were in charge of taking food and plates from the cafeteria to the classroom, where the teacher and students ate lunch together.

Some teachers told the researchers that younger students often had more discipline problems than older students, since they were young, and some of them had not formed good habits. The researchers did find that older students behaved better in the classroom than younger students, but younger students were more actively involved so that their classroom environments were more active.

The researchers learned that students did not think a full high test score represented everything. They also competed with each other on other things like handwriting. Some teachers attributed this attitude partially to their parents' expectations. Changxing's parents also cared about the children's behaviors behavior and daily performance at school in addition to test scores. If they learned that their children child did not behave well or their children's child's test scores were not good, they would be eager to communicate talk with the teacher to figure out what the problems were and how to solve them.

Generally teachers liked their school very much. One teacher said, "This atmosphere motivates me to work hard and helps me to grow fast professionally." Students and parents also had several good comments about the school. (1) Teachers cared about students. They often helped low-performing students. (2) Parents were invited to listen to the open lectures. (3) Students could participate in many extra-curricular activities such as visiting the exhibition of prehistoric creatures. (4) Students often helped each other.

Yongfa Elementary School: The Less Effective School

School Context.   Northwest of the school were three ten-story office buildings. To the east was a residential apartment complex and to the south a narrow road. The main entrance was on the narrow road. After entering the campus visitors could see the playground with a 200 meter clay track. The playground had four basketball frames without rims. Physical exercise facilities included a single bar, double bars, and a sand pit for distance jumping. Upon entering the old five-story school building visitors could see a large mirror. Above the mirror was the school motto: "Honest, trustworthy, diligent and studious!" The right side of the mirror was a slogan: "Be a model of students!" On the walls were posted stories of knowledge about safety. There were also pictures about patriotism. Crafts made by students included houses, boats, and trees made of green, red and yellow beans. The exhibition in the hall was reportedly changed once each semester; an art teacher was responsible for this.

The school had a library as well as a computer lab. The librarian worked part-time in the library because she also taught math. The library opened seldom, and its old books were arranged by categories. In the lab were 33 computers, all of which could access the Internet. Students were required to take off their shoes before entering the room.

The school had 810 students and 65 teachers. There were two music teachers: one full time and the other part-time. There were two P.E. teachers and one art teacher. Teachers were required to arrive at school by 7:40 AM and sign in. Every morning one teacher on duty stood in the main hall, while two students were on duty on each floor. Students were required to arrive at school by 8:00 AM, but students on duty had to arrive by 7:20.

Principal(s).   There were one principle and one vice principal at the school. The principal, who was in her forties, came to this school two years ago after she had been a principal at another school for three years. When asked how she felt about being assigned to this school before she began there, she answered that she had no feelings. In response to the question, "Do you usually look forward to coming to work at the school?" her answer was that she did not know. She believed that as a principal she could have a substantial effect on the teachers' ability to deliver effective classroom instruction and have some effect on students' academic achievement. She did not feel there was a great deal she could do to insure that all of the students in the school achieved at a high level.

The vice principal was in her thirties. She was promoted three years ago from teaching coordinator and was now mainly in charge of teaching. The principal and the vice principal often visited classes, and it had become an unwritten procedure that the teacher under observation asked the principals to give advice afterwards. For example, if a student gave an excellent answer to a question, but the teacher did not praise him/her, the principals would point that out. Although some teachers said that they had a harmonious relationship with the principals, they went to the department head first if they needed assistance in teaching, and if necessary they would ask the principals for help. The principal told the researchers that she would like to hire a teacher holding a degree from a formal teacher's college if she had the right to do so. In fact teachers were hired and assigned by the district office.

The principal encouraged teachers to participate in the school's decision making through the once-per-semester teacher representative meeting, but her role was crucial in the

process. Usually the principal presented a proposal, and teachers commented on it. "We can only give suggestions; we are not involved in the final decision making," said one teacher. Nevertheless they wanted to be involved, specifically in the decisions that were closely related to teachers' benefits. "Although some of the suggestions are not adopted, I still like to present them," a teacher told the researchers.

Teachers.   The ideal teacher at the school was described as someone who (1) was responsible for both students' study and their lives; (2) had strong professional skills such as being able to convey key points of knowledge that students needed to master; and (3) had a good relationship with peers. In reality teachers were evaluated mainly on the basis of students' test scores, and there had been no significance change after the new curriculum reform. Some teachers told the researchers that they were currently in a dilemma. On the one hand they had to change their teaching practices in order to foster students' abilities (e.g., abilities in communicating, reading, and writing in Chinese class) since they were often organized to learn these new educational ideas advocated by the new curriculum. However, on the other hand, they had to "teach to the test," since the students' test scores were still very important in teacher evaluation. They argued further that the exam-driven teaching should not be totally ignored, because the effects of a teacher's teaching were reflected in students' test scores. Accordingly, although they used the same textbooks as other schools did, their teaching focused mainly on knowledge delivery.

There were four levels of teaching plans: district-, school-, grade- and subject-, and individual-level plans. The last two plans were based on the first two (district- and school-level). The vice principal made the school teaching plan for the academic year. Each

teacher had a three- and a five-year development plan, which was based on the school's macro framework that followed the district requirements. Staff development aimed to improve teaching skills as well as foreign language and computer skills. Within the school each teacher was required to present demonstration lessons, while others observed and evaluated. Through observing colleagues' classes and communications teachers could improve their professional skills, but peer evaluations sometimes put teachers under pressure.

From conversations with teachers the researchers learned that opportunities for professional development for teachers were few. The main reason was that the school lacked sufficient funds. Teachers needed fundraisers if they wanted to attend off-campus professional activities. Most teachers therefore did not improve their diploma. Furthermore they had to discover by themselves their way of teaching when they came to the school because they had few opportunities to ask the senior teachers for guidance. Therefore their teaching abilities improved slowly. In two classes the researcher found that the teachers did not pronounce some Chinese words correctly. In another class the teacher did not write a Chinese word in the correct order of strokes, and a student corrected her.

While observing the classrooms at Yongfa the researchers found a common phenomenon was that the teachers were used to extending the class. On one occasion a class of students did not have a break between two class periods because the first class was extended. In a first grade math class the principal, who was observing the class, reminded the teacher that the class should be over, but the teacher continued until she finished her lesson plan; it ended five minutes late. In a second grade English class the teacher extended the class so long that all the students did not perform eye massages as required.

Teachers were very strict with students. Two math teachers required students to write math problems neatly; otherwise they would have to rewrite them. Another math teacher required students to write out every step on scratch paper in order to avoid a calculation mistake. In almost every class teachers often reminded students to sit straight and not too close to the notebook while writing in order to protect their eyes. The researchers also found that teachers became angry if there were discipline problems in class, or if students did not follow the lesson. In a second grade math class, when the teacher asked the students to use their cards to practice division, a boy told the teacher that he forgot to bring the cards. The teacher became angry: "How many times have I told you all to bring them today? Why can't you remember? Since you do not have the cards, you just sit!" In a fourth grade math class the teacher asked the students to measure an angle using a protractor. When she found that almost half the students did not know how to measure, she said with visible frustration, "We learned it last time. Why can't you do it?"

Students' School Life.   The first period class started at 8:00 AM. From 8:00 to 9:30, they had two classes, each class lasting 40 minutes, followed by a 25-minute break, which included exercise on the playground. Then they had their third class period, followed by a 15-minute break, which included eye massages in classrooms. After the fourth period class, students had a one and a half hour lunch break. From 1:00 to 2:30 PM, they had the fifth and the sixth class periods, with a 10-minute break between them. Then they had half an hour free activities, during which students did outdoor activities. Following that they had one hour of after-class activities. Students were released at 4:00 PM. Table 8.6 shows the schedule of the school. A typical math class at this school is described on pages 306-307 in Appendix F.

Table 8.6 Schedule of the Yongfa School

8:00—8:40	The first period of class
8:40—8:50	Break
8:50—9:30	The second period of class
9:30—9:55	Break, including physical exercise on the school playground
9:55—10:35	The third period of class
10:35—10:50	Break, including massages to preserve eyesight
10:50—11:30	The fourth period of class
11:30—13:00	Lunch Break
13:00—13:40	The fifth period of class
13:40—13:50	Break
13:50—14:30	The sixth period of class
14:30—15:00	Free activities
14:45—15:25	The seventh period of class
15:00—16:00	After-class activities

Some students ate at school and others at home. At school boxed lunches were sent to the classrooms from the school cafeteria. Students were not allowed to talk during lunch, and Banzhuren ate with their classes.

There was a clearly stated discipline rule. For example, students could only go to the restrooms during a break. If a student wanted to go to the restroom during a class the teacher might ask him/her to wait until the end of the class (as the researchers observed in a first grade math class). If students presented discipline problems, generally the lecturer solved the problems in class. If a problem was serious it was presented to the Banzhuren, who might contact the parents.

Students paid attention to test scores, especially the high-performing students. Some students even plagiarized in order to get a better score because they were afraid they would be looked down upon by peers if their scores were too low. Those sixth graders who had poor test scores in previous years no longer attached importance to their score because they believed they had no chance of entering one of the better middle schools.

Some teachers believed that students' attitudes toward test scores were greatly influenced by their parents' attitudes even though they remained at school at long time each

day. Some students' parents ran small businesses in the market. They were busy and not well educated, so they depended on the teachers to take more responsibility for their children's study. Interestingly some teachers thought that it was the parents' responsibility to help the students with their studies, and some believed that only parents could teach their own children. In a fourth grade math class, when a student in the back asked the teacher a question for the second time, the teacher said impatiently, "Your parents should consider what to do. You can't always lag the whole class behind."

Generally many teachers were dissatisfied with their jobs. Some were not pleased with their teaching abilities, some complained about the new textbooks, and others said that students' learning abilities were low. They also felt exhausted, not only from the routine of teaching, but also from demonstration lessons as well as from preparing materials for an inspection from those in authority (such as from the district). Although the working environment was not good, as a few teachers said, they were used to it. They hoped their welfare could improve and that parents would cooperate. The best things that students and their parents listed were the following. (1) Teachers were responsible for students, and they often helped the students with poor study habits. (2) The school had new restroom facilities. (3) A protective cover was placed over doors in winter to keep the building warm. (4) When students were dismissed teachers escorted them to the gate.

Students and their parents also listed some of the things about the school they did not like. (1) Some students did not protect school environment. They threw garbage everywhere. (2) The ventilation in the classrooms was not good. A medical education program needed to be advertised. (3) The school lacked safety equipment such as fire

hydrants. (4) Some students exhibited poor behavior in the hallway. (5) The school was often cut off from the water supply.

Comparisons between Changxing and Yongfa

There are some similarities between the two schools:

- The principal and the vice principal often visit classes and give advice after making observations.

- The principals in the two schools come to school very early.

- Both schools' teachers hope that their benefits can improve.

- Teachers at both schools are strict with students.

- In both schools students have music and art classes in their classrooms.

There are also differences between the two schools:

- The Changxing principal encourages teachers to be involved in the school's decision making, and she values their opinions. The Yongfa principal also encourages teachers to participate in the school's decision making, but her role in the process is dominant.

- In Changxing students' test scores are only part of the evaluation system, and the evaluation results are not linked to reward/punishment, so the teachers do not "teach to test." Yongfa's teachers felt compelled to "teach to the test" because the students' test scores are very important in teacher evaluation.

- Teachers in Changxing have a better relationship with students.

- Generally Changxing's teachers like their school very much. In Yongfa many teachers are dissatisfied with their jobs.

- Each Tuesday in Changxing the teachers teaching the same grade discuss the lesson plans together. Yongfa's teachers have few opportunities to ask senior teachers for guidance. Their teaching abilities therefore improve slowly.

- Changxing's parents also care about their children's behavior and daily performance at school in addition to test scores. If they learn that their children do not behave well or their children's test scores are not good they become eager to talk with the teacher to figure out what the problems are and how to solve them. Yongfa's teachers wish that parents would cooperate more.

The Fourth Pair of More and Less Effective Schools—Jixing and Shengli

Jixing Elementary School: The More Effective School

School Context. Jixing Elementary was bordered by residential and business buildings. Upon entering the old three-story building visitors could see two mirrors on both sides of the stairway. On the left wall the "Students' Rules" were posted, and on the right the school motto, "Determination, healthy, and progress" was displayed. Classrooms were distributed among all three floors, with the principal's office, the main office, the library, and the office of the Daduifudaoyuan being located on the second floor. Teachers' offices were on the third floor, where one office was shared by five to six teachers who taught the same subject. All the teachers who taught music, art, and P.E. shared one office.

There were 58 teachers and nearly 1,000 students. A Banzhuren was required to come to the school by 7:40 AM, while other teachers and students were expected by 7:50. Although there was no check-in book the researchers did not notice anyone arriving late. The principal told them that almost no one has been late since she arrived.

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Principals.   There were one principal and two vice principals. Ms. Ma, the

principal, has been a principal at the school for six years. When asked "How did you feel

about your assignment to this school before coming here?" her answer was that she was very

happy. She said that she usually looked forward to coming to work at the school. She

believed that as a principal she could have a substantial effect on the teachers' ability to

deliver effective classroom instruction. She also extolled that she could have a substantial

effect on students' academic achievement, and there was a great deal she could do to insure

that all of the students in the school achieved at a high level. The principal had been trying to

move the school away from "teaching to tests". She hoped that a teacher encouraged students

to find problems and solutions, rather than the drill training as was more common in the past.

When the researchers first arrived at the school at 7: 15 AM, the principal was

already there. She welcomed them warmly and then arranged everything for them, which

made the researchers feel that they had "left hell and arrived at heaven". (They visited

Shengli first, where the principal was not friendly). She told the researchers why she expected

teachers and students to come to school by 7:50 AM: "They work hard at school, so I want

them to have a good rest."

The principal valued teachers' opinions in the school's decision making. Some

teachers told the researchers that the school was very democratic, and the principal always

encouraged them to offer suggestions on how to improve the school. One teacher gave an

example: "The principal encourages each teacher to be involved in making student

enrollment policy. We can do this at a faculty meeting or go to the principal directly."

Teachers in this school appreciated being involved in the decision making because, as one

teacher explained, "I can feel important. Also, teachers' opinions make the policy easily accepted and implemented."

Teachers believed that their principal was rare. The principal, with advanced educational ideas in mind, advocated humanistic school management. One of her popular sayings was, "Gladly come to school and happily go home." The principal and the vice principal in charge of teaching frequently visited classrooms. After classroom observations they gave general comments such as regarding their general impressions and strengths of the lesson. They also gave specific comments such as how to communicate better with students.

The researchers felt the principal was popular among teachers and students. After they had been seated in a fourth grade Chinese class the principal came in. The students' warm welcome to the principal surprised the researchers. They said gladly, "Principal Ma, you come again!" The principal patted some students' heads and replied, "Yes, I like coming to your class." After class, the researchers talked to the students and learned that whenever Ms. Ma met a student, she stopped and talked to them. The researchers attributed the warm welcome they received at this school from the principal, teachers, and students to the principal's humanistic management.

Since this was a public school, it received funds from the district office. The principal did not have power to recruit new teachers. Instead new teachers were assigned by the district office. The principal told the researchers that the district has not recruited new teachers for the past few years because it was full; however teachers have been redistributed within the district. More than 30 teachers have been reassigned to this school since Ms. Ma became principal.

Teachers.   An ideal teacher at this school was described as someone who (1) had

good ethics as a teacher; (2) loved, respected, and communicated with students; (3) was

knowledgeable; (4) had excellent teaching skills, which included how to use textbooks well,

how to get to know students well, and how to foster students' abilities according to their

individual characteristics; and (5) paid attention to students' psychological development as

well as to their studies.

The school evaluated teachers using a set of comprehensive evaluation indicators,

including peer classroom observations, parents' feedback, as well as test scores. The principal

paid more attention to parents' comments on the teacher than students' test scores. Some

teachers who were interviewed said, "Unlike in other schools where teachers are graded, our

school evaluates teachers by parents' feedback and daily tasks." And, "Once a semester,

parents fill out an evaluation form indicating how their level of satisfaction with the teacher,

including strengths and weaknesses of the teacher."

Nevertheless teachers at the school still "taught to the test." One teacher said that it

was difficult for a teacher not to "teach to the test" with an exam-driven education system:

"Like last year, the district used the students' test scores to compare schools, so we had to

'teach to the test.'" Another teacher concurred, explaining, "It is impossible not to 'teach to

the test' absolutely in spite of what the new curriculum reform advocates." In spite of this

situation the teachers in Jixing Elementary also valued the learning process. Their teaching

focus included both knowledge delivery and cultivation of abilities. "I want my students to

master basic knowledge and skills. In addition I teach them how to learn and good learning

habits," said one teacher.

The staff development programs at the school included improving computer, foreign language, and teaching skills. They had weekly teachers' communication, like collective lesson plan preparation and watching a video of expert teachers' lectures. Every Monday morning only three teachers lectured, and all the other teachers observed these three teachers' classrooms. They then commented on the lectures to learn from each other. Every Wednesday afternoon all the teachers watched videos of excellent lectures by nationally famous teachers or videos about the latest educational theories. On Friday afternoons teachers who taught the same grade or the same subjects met together to discuss teaching plans. Each Saturday morning there was computer training for teachers.

The teachers had high expectations for their students, both in discipline and in academics. When the teacher entered the classroom after the bell rang for each class, he/she said, "Hello everyone!" The students saluted the teacher and responded, "Hello teacher!" The researchers observed that if the students did not stand up or salute well, the teacher would ask them to do it again, either the whole class or only those who did not do it well. During the eye massages a third grade girl was found working on her homework; the Banzhuren criticized her. A third grade English teacher required that students listen to the assigned English tape at home and then let their parents sign a paper in order to verify. If a parent did not verify this more than three times the parent would be required to come to school. When students did math problems they were required to make tables with two columns and two or three rows, and to use a straight edge when drawing lines.

The researchers observed that most teachers in Jixing had excellent teaching skills. They had a clear teaching objective, and paid attention to students' individual differences. In a

first grade math class the teacher designed the lesson of simple addition and subtraction so

uniquely that all the students participated actively. After class the teacher told the researchers

that she paid attention to collecting excellent lesson plans and teaching materials.

    Students' School Life. The first period class started at 8:05 AM, but students were

required to arrive at school by 7:50 AM for Zaozixi. From 8:05 to 9:35, they had two classes,

each lasting 40 minutes, followed by a 20-minute break, which included eye massages in

classrooms. Then they had their third period class, followed by a 15-minute break, which

included exercise on the school playground. After the fourth period class students had a one

and a half hour lunch break. From 1:00 to 2:30 PM, they had the fifth and the sixth period

class, followed by a 10-minute break, which included eye massages. Then they had the last

two classes. Table 8.7 shows the schedule of the school. A typical math class at this school is

described on pages 307-308 in Appendix F.

Table 8.7 Schedule of the Jixing School

7:50—8:05	Zaozixi
8:05—8:45	The first period of class
8:45—8:55	Break
8:55—9:35	The second period of class
9:35—9:55	Break, including the body exercise at the school playground
9:55—10:35	The third period of class
10:35—10:50	Break, including massages to preserve eyesight
10:50—11:30	The fourth period of class
11:30—13:00	Lunch Break
13:00—13:40	The fifth period of class
13:40—13:50	Break
13:50—14:30	The sixth period of class
14:30—14:45	Break, including massages to preserve eyesight
14:45—15:25	The seventh period of class
15:25—15:35	Break
15:35—16:15	The eighth period of class

    Students ate lunch (not free) in the classroom. The cafeteria sent food to each

classroom, and students used their own lunch box from which to eat. Banzhuren had lunch

together with the students. Students were not allowed to talk while eating. After they finished eating each student washed his/her lunch box or they took it home to wash.

There was a clearly stated discipline policy in this school. However it was not strictly implemented because the school implemented humanistic management. As one teacher said, "We have general discipline policy, but our principal is humanistic. When students break discipline rules, teachers tell them why it is not good to run or jump in the hallway." If students presented a discipline problem in class the lecturing teacher handled the situation, and in the hallway the teacher on duty was responsible. On each floor there were teachers and students on duty. If they found discipline problems they first reminded the student. If that did not work the student was sent to Banzhuren. Each class took turns on duty, and some students of the class were selected to be on duty. In this way students received what they call an "experience education."

When students and their parents were asked to list best and worst things about the school their list of positive comments was much longer. The best things included (1) teachers treated all students equally, and they often helped low-performing students; (2) the principal organized students to participate in some social welfare activities; (3) parents were invited to observe classes; (4) the school had a clear payment policy; (5) teachers and students enjoyed a close relationship; and (6) the principal advocated that a teacher should care about students as a mother treated her children. Most teachers did care about their students. As a student said in the questionnaire, "My teachers care about me like a big sister." One parent also said, "The teacher treats the students like a mother treats her children." The worst thing they listed was the poor school condition, such as old desks and only a few types of sports equipment.

When asked, "Are you satisfied with your job in this school?" all the teachers interviewed answered with the affirmative. One teacher reported, "I love this school. It is harmonious and comfortable to work in. We have a good relationship between teachers and students and between peers. I work hard, but I do not feel pressured." On the other hand some teachers thought that the school lacked sufficient funding, and therefore the facilities were old and inadequate.

Shengli Elementary School: The Less Effective School

School Context.   Shengli Elementary was located in a residential area. It was an old, four-story building with its main entrance and second entrance both facing a narrow bystreet. The main entrance was mainly for kindergarteners and the other second entrance for first through sixth graders. Cars often drove quickly past the second entrance, and it was not safe for students.

The campus was not spacious. On both sides of the main entrance were slides and swings for kindergarteners. On one side of the flag were old monkey bars, and on the other side were an old parallel bar and a broken swing. The students were not allowed to use the sports equipment, even in a P.E. class, probably because they were not sufficiently safe.

What the researchers first noticed when they entered the building was the school's motto, "Have high ideals and respect knowledge." On the left wall were many pictures that portrayed some school activities, and on the right wall were displayed the school's future development plans. There were one boys' restroom and one girls' restroom on the first floor for kindergarteners. Everyone else in the school was required to go to the outdoor restrooms, which were built recently.

The school had 50 teachers and 821 students. The teachers' offices were organized by subject, one office being shared by five or six teachers. Teachers were required to arrive at the school by 7:30 AM and students by 7:50. Every morning there was a student on duty to stand in front of the entrance to note who was late.

Principal.   The principal, who was in her thirties, was assigned to this school two years ago after she had been a principal in another school for more than five years. When asked, "How did you feel about your assignment to this school before coming here?" her answer was that she had no feelings. Her answer to the question, "Do you usually look forward to coming to work at the school?" was that she did not know. She believed that as a principal she could have a substantial effect on the teachers' ability to deliver effective classroom instruction. However she did not think she could have much effect on students' academic achievement, and she did not feel there was a great deal she could do to insure that all of the students in the school achieved at a high level.

The principal completely ignored the two researchers. "When we met her on the campus, she treated us as if we were air. I tried to talk to her, but she did not look at me," said one researcher. The principal did not provide the researchers with any opportunity to visit the library, the computer room, or many of the other facilities. Her attitude toward the researchers to some extent affected how much cooperation they experienced from the teachers. One researcher said, "I think the principal's indifference to us is a partial reason that some teachers refused to let us observe their classrooms."

Nevertheless the teachers interviewed said that the principal did a good job since she came to the school two years ago. One teacher said, "There have been many changes in

our school. For example, we built new restrooms." Another teacher agreed, saying, "The principal often visits classrooms, especially the young teachers'. After a classroom observation, she will talk to the teacher, pointing out his/her strengths and weaknesses."

The principal played a crucial role in the school's decision making. The teachers interviewed said that the principal formed a plan in advance and let teachers give comments. Because there were no significant changes each year basically teachers had no opinions. Therefore some teachers said that it did not matter whether they were involved in the process.

Teachers.   Teachers depicted the ideal teacher at their school as someone who (1) had good ethics as a teacher; (2) was knowledgeable and had excellent teaching abilities; (3) loved students; and (4) had a good relationship with peers and students. The school had rules for teachers. For instance, they could not be seated while lecturing, and they could not give students corporal punishment. Also teachers cleaned up their offices by taking turns. If the cleaning did not meet the criteria the teacher's monthly score decreased, and he/she would be fined later. If a student was found breaking rules, one point was deducted from his/her Banzhuren's monthly evaluation score, and the Banzhuren would be fined at the end of the semester. Students' test scores were also important in teacher evaluation. That was why teachers "taught to the test." As one teacher said, "We have to do this because the system is exam-driven and since scores are still used to evaluate teachers." Some teachers argued that "teach to the test" was not a bad thing, as one teacher said, "It is important for the elementary schools to provide a solid knowledge basis for their future studies."

The staff development focused on learning how to establish electronic teaching plans and how to improve their English. The teachers did not think that the staff development

program at their school was unique because it started recently and was the same as at other schools.

The researchers observed the teaching routines in the school. When the teacher entered the classroom after the bell rang for class he/she said, "Hello, everyone!" The students saluted the teacher and responded, "Hello, teacher!" A typical class involved review of previous content, introduction to new content, examples, and exercises. After the bell rang again class was over. The monitor (the student leader of the class) said, "Stand up!" Then the students saluted the teacher and said, "Good bye, teacher!" Sometimes teachers delayed the break if they had not finished the lesson plan. In a fourth-grade psychology class the teacher still practiced a traditional teaching method: reading the textbook, discussing, and doing exercises. The researches thought a psychology class should be conducted instead like a counseling session.

Teachers were strict with students in both discipline and studying. In a third grade English class, before the bell rang, the teacher entered the classroom. She then called three students to come to the front one by one and criticized them because they did not do a good job on their homework. The teacher then asked some students to stand up and criticized them for not turning in their homework. In a Chinese language class the teacher told those who did not follow her in a reading game or who did not read well that they had to do it ten times during lunch break.

Although some teachers in Shengli did not like to have visitors (three teachers refused to allow the researchers into their classrooms), they did want to demonstrate their best practices when visitors were present. In a fourth grade math class the teacher criticized the

students, saying, "We have guests today. Why don't you behave well?" The researchers had an opportunity to observe a demonstration class. The vice principal in charge of teaching accompanied three persons from the district teaching center to observe a first grade Chinese language class. The researchers believed that this was a class specifically designed for demonstration, and they thought it was very successful because students actively participated, the teacher praised a student whenever he/she answered a question, and the teaching involved games. However the researchers were shocked that the teacher criticized a boy once the other observers went out of the classroom because he asked too many questions, which the researchers guessed affected the implementation of the teacher's teaching plan.

Students' School Life.   The first period of class started at 8:00 AM, but students were required to come to school by 7:50 AM to have Zaozixi. From 8:00 to 9:30, they had two classes, each lasting 40 minutes, followed by a 25-minute break, which included exercise on the school playground. Then they had the third class period, followed by a 15-minute break which included eye massages. After the fourth period of class students had a one and a half hour lunch break. From 1:00 to 2:30 PM, they had the fifth and the sixth class periods, followed by a 10-minute break which included eye massages. Then they had the last two classes during which students could do homework or other after-school activities. During the eye massages one student at each class stood in the front to lead the class, and the Banzhuren came to the class to supervise. An examination group of three students from the school student government went from class to class to see which group was doing well, which was a part of the awards for discipline. If they found some students did not do the massages they wrote down their names, and points were deducted from the class score. Table 8.8 shows the

schedule of the school. A typical math class at this school is described on pages 308-309 in

Appendix F.

Table 8.8 Schedule of the Shengli School

7:50—8:00	Zaozixi
8:00—8:40	The first period of class
8:50—9:30	The second period of class
9:30—9:55	Break, including the body exercise at the school playground
9:55—10:35	The third period of class
10:35—10:50	Break, including massages to preserve eyesight
10:50—11:30	The fourth period of class
11:30—13:00	Lunch Break
13:00—13:40	The fifth period of class
13:40—13:50	Break
13:50—14:30	The sixth period of class
14:3 0—14:40	Break, including massages to preserve eyesight
14:40—15:20	The seventh period of class
15:20—15:30	Break
15:40—16:10	The eighth period of class

Some students ate lunch at school. The Banzhuren were required to eat with them in

the classroom. The food, for which students had to pay, was provided by the school cafeteria.

Students took turns cleaning the classroom. When all of the students went to the playground

to exercise in the morning two students remained in each classroom in order to clean. After

lunch time, usually before the first class in the afternoon began, the examination group from

the school student government visited each classroom in order to examine its cleanliness.

The teachers interviewed told the researchers that there was a clearly stated student

discipline policy, both inside and outside the classrooms. These rules were strictly

implemented. There were two principals and several teachers and students on duty each

week, who were responsible for outside classroom discipline. They would check if students

played appropriate games on the playground during breaks, and how the students behaved in

the hallway. Classes competed with each other for the weekly awards for hygiene and

discipline. If a student was caught breaking any rules the student or the teacher on duty wrote down his/her name and gave it to the student's Banzhuren.

When asked if they were satisfied with their job in this school all of the teachers interviewed said, "We are too exhausted because we have too much to do each day!" The teachers also accepted that the school building and classrooms were small and the teaching facilities needed improvement. As one music teacher said, "I really want to have more music tapes for teaching."

When asked in the student questionnaire to list the three worst things about their school the students' responses could be summarized as follows: the cafeteria was not clean, and it was too cold to go to the outdoor restrooms in winter. The parents agreed with their children. The worst things the parents listed included: (1) the food the cafeteria provided was not good; (2) the playground was small; (3) there were no indoor restrooms; (4) there was so much homework that sometimes children cannot go to bed until midnight; and (5) the school did not have a very clear payment policy.

Comparisons between Jixing and Shengli

There are some similarities between the two schools:

- In both schools the principal and the vice principal in charge of teaching frequently visit classrooms. They observe then offer comments.

- In both schools teachers are strict with students in both discipline and studies.

There are some differences between the two schools:

- The Jixing principal values teachers' opinions in the school's decision making whereas the Shengli principal plays a dominant role in the decision making.

- In Jixing there is a stronger teacher team, and teachers exhibit better teaching skills.

- There are more discipline problems in the classrooms in Shengli.

- The parents of Shengli do not pay attention to their children' academic achievement as much as those of Jixing do.

Comparisons between More Effective and Less Effective Schools in Rural Areas

Similarities

The qualitative data presented in Chapter 7 reveal some similarities and differences in leadership, teaching, parent/school relationships, school conditions, and so forth between more effective and less effective schools in rural areas in China. The similarities can be summarized as:

- Principals often visit classrooms.

- Principals play an important role in the school's policy decision making, while teachers do not.

- Teachers hope that their benefits can be improved. They think that their salary is far lower than that of urban teachers.

- Students' test scores are of primary importance in teacher evaluation. This practice continues in China, even though the government has dictated a curriculum reform that requires teacher evaluation to be composed of a number of dimensions, not just student test scores (e.g., Liu & Teddlie, 2005).

- Teaching focuses mainly on knowledge delivery. Again, this is inconsistent with stated government policy under the new curriculum reform".

- There are not many opportunities for staff professional development.

- The Banzhuren teaches both Chinese and math.

- English teachers are not professionally trained, and thus they cannot pronounce English correctly and fluently. The implication of this lack of teacher training in English is very negative for rural students' academic advancement.

- Teachers are very strict with students in both discipline and studies.

- Parents do not cooperate very well. Most parents think that the students' test scores are completely determined by the teaching quality and have little or nothing to do with parents' attitudes and behaviors.

- Students have more discipline problems in non-math or Chinese classes.

- Principals and teachers have low future expectations and high present expectations for students.

- Low-performing students are ignored; in fact, some teachers almost openly "give up" on poor performing students by placing them in the back of the room and then ignoring them.

- School conditions are poor. For instance, there is not much sports equipment, the desks and chairs are old, teaching equipment is limited to blackboard, chalk, rulers and set squares, and the classroom heating depends on stoves so that it is cold in winter.

Differences

The differences between more effective and less effective schools in rural areas include:

- The principal in more effective rural schools (e.g., Xiangyang) refused to accept unqualified teachers assigned by the district office, while the principal in less effective rural schools (e.g., Guangming) accepted the unqualified teachers. Bridges (1986) has referred to a similar phenomenon in the USA as the "dance of the lemons", and he indicates that effective principals are less willing to accept the assignment of incompetent teachers to their schools.

- Teachers in more effective rural schools have better teaching skills than those in less effective rural schools. This replicates research reported in the USA over the past 20 years. (e.g., Stringfireld, Teddlie, & Suarez, 1985; Teddlie, Kirby, & Stringfield, 1989).

- Students in more effective rural schools have better behaviors in class than those in less effective rural schools.

Comparisons between More Effective and Less Effective Schools in Urban Areas

Similarities

The qualitative data presented in this chapter reveal some similarities and differences between more effective and less effective schools in urban areas in China. The similarities can be summarized as:

- Principals often visit classrooms.

- Teachers are very strict with students in both discipline and studying.

- Teachers hope that their benefits can be improved.

- Students have more discipline problems in non math or Chinese classes.

- Principals, teachers and parents have high expectations, both future and present.

- The school conditions are poor (e.g., little sports equipment and old desks and chairs).

Differences

The differences between more effective and less effective schools in urban areas include:

- Faculty in more effective urban schools plays an important role in the school's policy decision making, while principals play a predominant role in the process in less effective urban schools. Researchers and scholars in the USA have been calling for a more direct link between teacher leadership and school improvement over the past decade (e.g., Murphy, 2005; Smylie, 1996).

- Students' test scores in the more effective urban schools play a more important role in teacher evaluation than in less effective urban schools.

- Teaching in the more effective urban schools focuses on cultivation of abilities as well as on knowledge delivery, while teaching in less effective urban schools focuses mainly on knowledge delivery. Teachers in the effective urban schools appear to be following dictates of the new curriculum reform more than any other group of teachers in this study.

- Teaching skills in the more effective urban schools are better than those in less effective urban schools.

- There are more opportunities for staff professional development in more effective urban schools than in less effective urban schools.

- Parents in more effective urban schools cooperate with teachers better than those in less effective urban schools.

- Students in more effective urban schools have better classroom behaviors than those in less effective urban schools.

The comparisons above indicate that more effective and less effective schools in rural areas share more similarities than differences, and that the differences between more effective and less effective schools in urban areas are more pronounced than those in rural areas.

CHAPTER NINE: CONCLUSIONS AND DISCUSSION

One of the major purposes of this study is to identify the processes of effective schools in China, thus enriching the international study of school effectiveness. Mixed methods have used in this study to collect both quantitative and qualitative data simultaneously to test the hypotheses and answer the research questions. The quantitative analysis results were presented in Chapter 6, and the qualitative results were reported in Chapters 7-8. This chapter draws final conclusions based on an integration of the quantitative and qualitative results, addresses the contributions and implications of this study, and provides suggestions for future studies on SER in China.

Similarities between the Processes of Effective Schooling and Teaching in China and Those Described in the International School Effectiveness Literature

The Processes of Effective Schooling

The first research hypothesis is that the processes of effective schools in China are similar to those described in the international school effectiveness literature (e.g., Reynolds & Teddlie, 2000). These processes include effective leadership, effective teaching, a pervasive focus on learning, a positive school culture, high expectations for students and staffs, staff development, etc. The data for testing this hypothesis were collected from the teacher, student, and parent questionnaires. The MANOVA analyses revealed a consistent result: There is a significant difference, at the $p < .05$ level, between more effective and less effective schools across all the traditional school effectiveness variables. Therefore, I can conclude that the processes of effective schools in China are similar to those described in the international school effectiveness literature, although the univariate effects for the teacher, student, and parent MANOVAs did not yield exactly the same results.

The Processes of Effective Teaching

The second research hypothesis is that the processes of effective teaching in China are similar to those described in the international teacher effectiveness literature (e.g., Campbell, Kyriakides, Muijs, & Robinson, 2004). These processes include maximizing classtime, exhibiting best teaching practices, adapting practice to particulars of classroom, and so on. A MANOVA using the data collected from classroom observations, with school effectiveness status and school community type as independent variables and nine teaching dimensions as dependent variables, was conducted to test the hypothesis. The results demonstrated a significant difference (at the $p < .05$ level) between more effective and less effective schools across all nine traditional teacher effectiveness variables. Further examination of the univariate effects indicated that there were significant differences for all the nine dimensions of teacher effectiveness. Thus, I conclude that the processes of effective teaching in China are similar to those described in the international teacher effectiveness literature. This is consistent with our previous conclusion (Liu & Teddlie, 2005) that the teaching evaluation indicators in China are similar to those in the USA and the UK.

Differences between the Processes of Effective Schooling in China and Those Described in the International School Effectiveness Literature

The first research question concerns differences in the processes of effective schooling in China as opposed to those described in the international literature. The process for answering this question was primarily qualitative in nature. There were three steps in the process for answering Research Question #1.

1. Case studies of more and less effective schools in China were generated using extensive interviews and observations. Similarities and differences between more

and less effective schools in China were generated. (These initial analyses are located in Chapter 7 for rural schools and Chapter 8 for urban schools.)

2. The similarities and differences between more and less effective schools in China were then compared across all 12 case study schools and preliminary summary lists were generated. Some of these lists are presented at the end of Chapter 8 as summaries of similarities and differences across all rural school and across all urban schools.

3. Factors that discriminated between differentially effective schools in China were compared with the traditional factors based on research from the USA and other western countries. Some factors differentiated between schools in both China and schools described in the international literature (e.g., effective classroom teaching variables) while others did not (e.g., safe and orderly climate). Additionally, new factors associated with the effectiveness of schooling in China emerged (e.g., the role of the Banzhuren teachers, for whom there is no exact equivalent in the USA and other western countries). A summary list of differences between the processes of effective schooling in China as opposed to those described in the international literature was then generated and presented later in this section of Chapter 9.

Across rural and urban schools, our findings regarding the processes of effective schooling in China confirm some of the conclusions described in the international literature such as (1) Teaching skills are better in more effective schools than those in less effective school; and (2) Students in more effective schools have better classroom behaviors than those in less effective school.

Despite these similarities, this study reveals many differences in the processes of effective schooling in China as opposed to those described in the international literature. These differences constitute the answer to Research Question #1:

Leadership

The Principal's Power.   A principal does not have power to hire a new teacher, who is usually assigned by the district office. However, principals play an important role in the school's policy decision making, especially in rural schools. Research conducted in the USA indicates that an effective principal's power to select new teachers is one of the most functions of his/her office.

Faculty Involvement in Schools' Policy Making.   Teachers, especially those in rural schools, do not like to express their opinions in schools' policy making even if they disagree. They are used to obedience. This is consistent with Walker and Dimmock's (2002) conclusion that Chinese tend to avoid open confrontation and assertiveness.

Teachers

The Role of the Banzhuren.   As a director of a class, a Banzhuren is responsible for the students' studies, behaviors, ethics education, health and safety, and so forth. He/she also teaches the class one or two core subjects. There is no exact equivalent of the Banzhuren in the USA or in western countries in general. In order to increase students' test scores, classroom hygiene, students' behaviors, and so forth, a Banzhuren does much more work than a regular teacher. Nevertheless, most teachers like to be a Banzhuren, since a Banzhuren has a higher status and a greater chance to be promoted than a regular teacher in a school. A Banzhuren plays an important role not only in K-12 schools, but also at a college.

More research is needed on the role of the Banzhuren in creating effective or improving school environments.

   The Profile of an Ideal Teacher.   An ideal teacher is described by the interviewed teachers at the 12 schools in this study as someone who (1) is knowledgeable, (2) has excellent teaching skills and employs different teaching methods for different students to arouse their interest in studies, (3) is responsible for students, and treat each student equally, especially to low-performing students, (4) is a moral model for students, and (5) has a good relationship with peers and students. This is partially consistent with previous studies (e.g., Cortazzi & Jin, 1996) that good Chinese teachers were believed to have deep knowledge, to provide an answer to learners' questions, and to be moral examples. There is no equivalent to the Chines concept "morality in education" in public schools in the USA and other western countries. Liu and Teddlie (2005) presented the components of a traditional comprehensive teacher evaluation program in an elementary school that was adapted from Ying and Fan (2000). One of the criteria was labeled "Morality" and consisted of "insistence" on the four basic principles of the Communist Party of China (CPC), implementation of the educational policies set by the COPC, and setting a good model for students.

   The Importance of Students' Test Scores in Teacher Evaluation.   Students' test scores play an important role in teacher evaluation, especially in rural schools. For a Banzhuren, how well he/she manages a class is another important indicator for teacher evaluation.

   The Teachers' Office.   In both rural and urban schools, several teachers share one office, which is organized either by grade or by subject. A teacher can see how other teachers

in the same office make lesson plans, contact parents, or communicate with students with

discipline problems. This, to a great extent, promotes teachers' professional development

within the school, since there are not many opportunities for teachers to attend off-campus

professional activities due to limited budgets.

Teaching to the Test.   There is great pressure on Chinese teachers to get good

achievement test results from their students: this was a theme that was echoed throughout the

case studies. Many of the teachers were very straight forward abut having to "teach to the

test" in order to get higher student achievement and better evaluations for themselves. While

the practice is also widespread in the USA, teachers are much less forthcoming (especially

with educational researchers) about teaching to the test.

Students

The Role of Students.   Every day students on duty help examine classrooms'

hygiene and supervise other students' behaviors on the playground or in the hallways. Most of

the students on duty are members of the school Daduibu, a branch organization of the

Communist Party in elementary schools. Within a class, students take turns cleaning up each

day. Of course, there is no exact equivalent of the Daduibu, in the USA or in western

countries in general.

The Effect of the Poor Quality of Teaching on the Future Expectations for Students

in the Rural Schools.   The poor teaching quality might be caused by the facts that rural

teachers have received less formal education (e.g., the Minban, for whom there is no exact

equivalent in the USA or other western countries), have fewer in-service professional

development opportunities, and have a lower salary than urban teacher. This study reveals

that principals, teachers, and parents have lower future expectations for students (e.g., the chance for entering a college) in rural areas than in urban areas due to poor teaching quality in rural schools. For example, most rural English teachers reported in this study are not professional, and thus they cannot pronounce English correctly and fluently. As a result, rural principals, teachers, and parents do not think students graduating from rural schools are able to compete with their urban peers when they take the national college entrance examination.

School Conditions

The Importance of Facilities and Resources in China, Especially in the Rural Areas. Both rural and urban schools presented in this study have poor school conditions, and rural schools' conditions are worse. This conclusion is supported by a study (World Bank, 1999) concluding that per-student spending in primary education in urban areas was 146% of that in rural areas in 1997. For example, in the rural schools presented in this study there is little sports equipment, the desks and chairs are old, teaching equipment is limited to blackboard, chalk, rulers and set squares, the classroom is cold in winter, and so forth. Facilities are typically not associated with student achievement in the USA and other western countries, but the variance among facilities in those countries is apparently not as great as in China. It is also unclear how representative the sample used in this study is representative of the entire country. One would certainly assume that the facilities in the larger Chinese cities (e.g., Beijing, Hong Kong, Shanghai) are much better than those reported in this study. Nevertheless, to the degree that the sample in the current study is representative of many areas in the country, the lack of facilities is a large problem.

Underutilization of Libraries.   The researcher reported under utilization of libraries in almost all the schools, in several cases because the library rooms were not large enough to accommodate large size classes. This is typically not the case in the USA and other western countries.

The School-Parent Relationship

Communication with the School.   Most urban parents pay more attention to their children's studies than those in rural areas. They often communicate with teachers, buy relevant books, and even hire tutors for their children. Most importantly, many parents help their children with studies by themselves. In rural areas, however, not many parents often contact school, since they are not well educated and are busy with fieldwork. They think that it is the school' responsibility to take care of their children and improve their test scores. Thus, if something happens to their children, they would blame or threaten the school. In this situation, the principal sometimes has to bribe the parents in order to appease the situation (e.g., at Guangming Elementary).

Students' Tuition.   Although China is implementing a nine-year compulsory education, all K-12 students have to pay tuition, and miscellaneous charges used for tutorial classes, exercise books for tests, extra learning materials and stationery, and so on. Therefore, parents care about the clarity and fairness of the payment policy at the school that their child attends.

Others

Large Class Sizes.   Chinese schools have a large class size, especially in key schools. The average class size of the 12 typical math class presented in this study is 44. A

large class size might make it hard for a teacher to pay attention to all students. As a result, a teacher may only focus on a part of students in the classroom and give up some students by putting them in the back rows. Of course, there is a large research literature in the USA (and other western countries) indicating that there is an inverse relationship between class size and student achievement (e.g., Glass & Smith, 1979).   While there has been some controversy about the impact of class sizes between 25 and 40, the evidence of negative effects of class sizes over 40 is strong.

The Use of Bribes.   Case studies revealed that there were rumors that principals bribed parents and that teachers bribed principals in various contexts. This practice appears to be more widespread in the rural areas.

Differences in Effective Schooling in Urban Areas as Opposed to Effective Schooling in Rural Areas in China

The second research question concerns differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China. Both quantitative and qualitative data were collected and analyzed to answer this research question. The MANOVA analyses from the teacher, student, and parent questionnaires revealed significant differences between urban and rural schools across all the traditional school effectiveness process variables as summarized in detail in Chapter 6. This indicates that the school effectiveness processes found in traditional SER can successfully differentiate between urban and rural schools in China. In most cases, the urban schools had higher climate scores and better classroom teaching than the rural scores. For example, an examination of the univariate effects for the independent variable of community type show that there is a consensus among teachers, students and parents that the school process variable "expectations for students" can

successfully differentiate between urban and rural schools in China. The variable "quality of instruction" is also regarded by teachers and students as a differentiable school variable.

The descriptive statistics from the twelve principal questionnaires sheds light on why some school process variables such as expectations can successfully differentiate between urban and rural schools in China, while other variables such as school reputation cannot. When asked "What percent of the students in your school do you expect to attend college?" seven out of the eight urban principals answered 90% or more, and the other one answered 70% to 89%. Three of the four rural principals answered 30% to 49%, and the other one selected "less than 30%." For the question "How many of the students in your school are capable of getting mostly A's and B's?" All the urban principals answered 90% or more, while two of the rural principals selected 70% to 89% and the other two selected 50% to 69%. These data indicate that the principals in the urban schools have a higher expectation for their students than those in rural school in spite of school's effectiveness status.

The data from the principal questionnaires can also help why the variable "school reputation" is not a differentiable factor between urban and rural schools. The principals in the more effective schools think that their schools' reputation is better than other schools, while the principals in the less effective schools think that their schools' reputation is almost as same as other schools, no matter what the school's community type is. The reason for this might be that the principals consider the school reputation within their own community. Since they compare their own schools with other schools regionally, it might lead to no differences between urban and rural schools on this dimension.

As stated in Chapter Four, both predetermined themes (i.e., community/district office, leadership, faculty and instructional organization, curriculum and professional development) and emergent themes were used to answer the qualitative component of the second research question "What are the differences in effective schooling in urban areas in China as opposed to effective schooling in rural areas in China?" The results are summarized in Table 9.1.

We can see from the table that there are few differences between rural and urban schools on the first dimension—community/district office. Both rural and urban schools receive finances mainly from the local governments, but there are more resources (e.g., computers and TVs) in urban schools than in rural schools.

For the second dimension— leadership, the major difference lies in faculty participation. In rural schools, there is less faculty participation in policy making, while in urban schools, especially the more effective ones, there is more faculty participation in policy making. Rural teacher do not express opinions about their schools as much as urban teachers do, and many of them appear to accept the role of the "obedient" teacher. For all schools, success is mainly measured by students' test scores, since the whole system is exam-driven. Both urban and rural schools have strict discipline rules, but these rules are generally ones designed to direct students on how to behave well, rather than rules used to punish students if they do not behave well. When a student breaks a rule, he/she is usually criticized and educated by the Banzhuren.

The dimension of faculty and instructional organization includes faculty recruitment, present or future expectations for students, and faculty stability.

Table 9.1 Comparisons between Urban and Rural Schools

	Urban Elementary Schools	Rural Elementary Schools
Community/District Office	More resources, and efficient delivery system Little community involvement and influence Stable community	Fewer resources, but efficient delivery system Little community involvement and influence Stable community
Leadership	Instructional leadership required for success, which is measured by students' test scores Discipline good Close ties to central office More faculty participation in policy making	Strong instructional leadership required for success, which is measured mainly by students' test scores Discipline good Close ties to central office Less faculty participation in policy making
Faculty and Instructional Organization	Faculty recruitment decided by central office, almost no substitute teachers Focus on both present and future expectations for students Stable faculty	Faculty recruitment decided by central office; a few substitute teachers in some schools, easy to find Focus on present expectations for students Stable faculty
Curriculum and Professional Development	A broader curriculum beyond basic skills Low technology use in classrooms More in-service opportunities Curriculum innovation at low level	Limited curriculum, focusing on basic skills No technology use in classrooms Fewer in-service opportunities Curriculum innovation at low level

A commonality between rural and urban schools on this dimension is that faculties are very stable. With higher unemployment in the cities (at least in this sample of schools), more people would like to be teachers since they can obtain a stable salary. Although rural teachers have lower salaries than their urban peers, they feel lucky that they do not have to labor in the field.

The major difference between rural and urban schools on this dimension is in the expectations for students, especially future expectations. Since students' test scores are important in school ranking as well as in teacher evaluation in both rural and urban areas, teachers and principals have high present expectations for students in both rural and urban

schools, although the present expectations are generally higher in urban schools. Moreover, individuals associated with rural schools have lower future expectations for students than those in urban schools, because they recognize that there is poorer teaching quality in the rural schools.

The lower school future expectations for students in rural areas are consistent with rural parents' lower expectations for their children. While most parents in urban areas are better educated and wealthier, farmers are generally not well educated, poor, and busy with field work. Therefore, even if they realize that education is virtually the only way through which their children can leave the village and change the social status of their next generation, quite a few of the parents give up on their children's education if their children achieve poorly in school, or if the family is very poor. The lower future expectations result in the parents not caring as much about children's education. Sometimes parents even hope their children can help them with housework or other chores to lessen their burdens. Parents in rural areas rarely communicate with teachers. With their limited budgets, sometimes the money for reference or textbooks is a burden for them.

The last dimension is curriculum and professional development. Urban and rural schools differ in three aspects on this dimension. First, there is a broader curriculum delivery beyond basic skills in urban schools, while in rural schools there is a limited curriculum delivery, focusing on basic skills. This is related to teachers' teaching abilities and their workload. Most urban teachers have graduated from formal colleges and are well educated and knowledgeable. Most rural teachers have graduated from community colleges, and some of them are substitute teachers. Rural teachers generally have lower teaching skills.

Therefore, urban teachers can stimulate their students' higher order thinking skills, although all schools (urban and rural) focus on basic skills. This finding confirms a previous conclusion (Fuller & Clarke, 1994) that teachers' subject knowledge and oratory skills are very important for effective teaching. Furthermore, in rural schools, the math and language teacher is often the same person, while urban teachers teach only one subject. As a result, urban teachers have more time to prepare for classes. Rural teachers have more classes, more subjects and more responsibilities, so they do not have adequate time to prepare for their classes, which in part leads to the small curriculum content.

Second, urban classrooms have more educational resources than rural schools. For example, there is a television and computer in every urban classroom, but there are no regular classroom teaching supplies (rulers, compasses, set squares) in some rural classrooms, let alone computers. Even in urban classrooms, there is low technology usage because technology is not really integrated into subjects. For example, researchers did not see the use of much technology in the 12 typical math classes that were presented in Chapters 7-8.

Third, rural teachers have fewer opportunities for in-service learning. For example, most professional programs in urban schools include improving teachers' computer skills, but in rural schools, teachers do not have computers in their offices. This is in part because of economic conditions, but it might also be related to principals' and teachers' failure to realize the importance of computers.

One common element between rural and urban schools on the dimension of curriculum and professional development is that curriculum innovation is at a low level. The curriculum in China has been characterized by its uniformity and centralization. Although

schools have been allowed to have their school-based courses during the past years, the number of courses is very limited, even after the new curriculum reform. Therefore, school-based curriculum innovation is at a low level in both rural and urban schools.

Differences in the Processes of Effective Teaching in China as Opposed to Those Described in the International Teacher Effectiveness Literature

The third research question concerns differences in the processes of effective teaching in China as opposed to those described in the international literature. The procedure for answering this question is similar to that employed for answering the first question. From the descriptions of the six pairs of case studies we can see that in the classroom of a more effective school students are better behaved, teachers pay more attention to students' individual differences, and there are more higher-order thinking activities involved than in the classroom of a less effective school.

The qualitative data also reveal that classroom teaching in urban areas is generally better than that in rural areas. This might be caused by teachers' teaching skills, school resources, and so on. First, most urban teachers have graduated from formal colleges, and thus they have received better education than rural teachers. Most of rural teachers have graduated from community colleges, and some of them are substitute without any higher education. Because urban teachers have better professional training before they become teachers and they are well prepared for each lesson, they can answer students' questions adequately and give detailed and precise comments on students' responses to questions. Rural teachers, however, usually give vague answers to students' questions. Most English teachers in rural schools have not received professional training, and this makes incorrect pronunciation a big problem there.

Second, most urban teachers teach one subject with several sections, while most rural teachers teach more than one subject to the same class. Thus, urban teachers can spend more time preparing for one subject than rural teachers do. Third, urban schools have more educational resources (e.g., a television and a computer) than rural schools, which gives urban teachers more opportunities for in-service learning than rural teachers.

The differences in the processes of effective teaching in China as opposed to those described in the international literature can be summarized as follows:

- The Chinese culture leads or directs students to respect their teachers. Once a teacher comes in for a lecture, all the students stand up and said, "Good morning (or afternoon), teacher!" (Some schools require students to salute the teacher.) The teacher then responds, "Good morning (or afternoon), students!" When the bell rings indicating the class is over, the monitor (the student leader of the class) says loudly, "Stand up!" Then the students stand up and say, "Good bye, teacher!" If students have not stood up or saluted well, the teacher might ask them to do it again. The Chinese system emphasizes respect for the teacher much more than that described in the literature from the USA and other western countries.

- All Chinese teachers try to maximize classroom instruction time due to the exam-driven system where students' tests scores are very important for the teachers' evaluations. A slogan has become popular among teacher in China: "Make effective use of every 40-minute classroom teaching!" Similar pressures exist in the USA and other western countries, but teacher bonuses are typically

not associated as directly with student performance as they often are in China. Ying and Fan (2001) illustrated this emphasis in China by quoting from the preface to a teacher evaluation system, which emphasized student performance in the "comprehensive score":

> In order to deepen educational reform, adopt competitive mechanism, and motivate teachers, we decide to deduct 100 yuan from each teacher's monthly salary as rewarding salary, which will be allotted based on the comprehensive score received from the following indicator system at the end of each semester (Ying & Fan, 2001, p22).

- Researchers reported that Chinese teaching behaviors are very uniform. A typical teaching sequence is: review of previous content, introduction to new content, and summary of new knowledge. Examples and exercises are frequently involved in the process. However, students seldom present their projects in class, probably because the teacher is afraid to waste the valuable class time.

- Chinese classes emphasize whole class activities more than group activities. During a class, teachers determine if students have mastered what has been taught usually by asking a variety of questions. While one student orally answers a question, the others are listening. If a student is asked to write his/her answer on the blackboard, the other students should look at the board or work on the same problem on their own seats. The prevalence of the whole class interactive model is probably at least partially due to the large class sizes in China. With 50 or 60 students in a class, it is difficult to manage the classroom, especially if the students are divided into 10 or 12 groups.

- Courses other than math or Chinese language were given little attention in the schools sampled in this research study. Since the district-level examination generally does not include non- math or Chinese language courses, the school does not pay much attention to them. Quite a few teachers who teach these courses are not professional (e.g., the third grade science teacher at Xuezi), and students have more discipline problems in these classes.

- Teachers are very strict with students in both discipline and studies. During a class, teachers often remind their students to sit appropriately, which means sitting straight and putting their hands behind their backs. If a student wants to answer a question, he/she is expected to raise the right hand with the elbow on the desk like (e.g., at Yuren). In a math class, most teachers require their students to use rulers to draw a line.

- Demonstration lessons are popular both within and across schools. They are used for teacher evaluation, or for teachers to learn from each other.   Schools often send their teachers to the key schools to observe "model" lessons as a part of the school staff development program.

- Tutoring is very popular. In class Chinese teachers usually ask high-performing students to help low-performing students. Teachers often give those students who have not mastered what is taught in class extra tutoring after class (e.g., at Anda). The underlying belief is that everyone can learn well if only they work hard, since Chinese attribute academic success more to effort than ability (Dimmock & Walker, 2000b). With the attribution of academic success to

effort rather than ability in China, a common belief is that a student's ability is not limited as long as he/she strives hard. Thus, even when students have failed due to a lack of ability, they are still expected to repeat the classes or exams many times. An idiom is widely used by teachers and parents to motivate students to study hard: Diligence can offset any innate deficiency (e.g., intelligence).

Contributions and Implications of This Study

Contributions

The first contribution of this study is that as one of the limited studies on SER conducted in China, this study has identified both school effectiveness and teacher effectiveness processes variables in China. Based on the integration of the mixed data analyses, the general conclusions drawn from this study are twofold. (1) The processes of effective schools in China are similar to those described in the international school effectiveness literature. Meanwhile, Chinese schools also have different processes from those described in the international school effectiveness literature, such as principals' power, faculty' involvement in schools' policy making, the role of the Banzhuren, the role of students, the importance of students' test scores in teacher evaluation, teachers' professional development, the effect of the poor quality of teaching on the future expectations for students in the rural schools, the large class size, the school-parent relationship, the importance of facilities and resources, and students' tuition. (2) The processes of effective teaching in China are similar to those described in the international teacher effectiveness literature; however, Chinese classrooms also have their unique processes, such as non math or Chinese language

classes ignored, teachers' strictness with students in both discipline and studies, teachers' effort to maximize classroom instruction time, the uniform teaching behaviors, and wide use of demonstration lessons.

These conclusions confirm some conclusions in an earlier review (Fuller & Clarke, 1994) of SER in developing countries, concluding that school facilities and resources, and teacher qualities (e.g., teachers' own knowledge of the subject and their verbal proficiencies) are important in developing countries. As one of the few simultaneous studies of school effectiveness research and teacher effectiveness research, this study also supports the previous conclusion (e.g., Teddlie, Kirby, & Stringfield, 1989) that teachers in the more effective schools exhibit better teaching behaviors than those in less effective schools.

Second, this study has explored how community (urban vs. rural) as a context variable influences school effectiveness in China. The general conclusion drawn from this study confirms the previous conclusion that there is a big educational gap between urban and rural areas (e.g., Tsang, 2000; Zhou, et al., 2004). Furthermore, this study reveals that the differences between urban and rural schools in China exist in leadership, the future expectations for students, curriculum and professional development. In a rural school, there is less faculty participation in policy making, lower future expectations for students, a more limited curriculum delivery (focusing on basic skills) and fewer opportunities for teacher professional development.

Third, this study indicates that some school process variables differentiate between rural and urban schools but do not differentiate between more effective and less effective schools in China. For example, one of the findings from the Schaffer et al. (2002) study in

Taiwan is that there is limited variance among schools in terms of school organizational characteristics, school conditions, and curriculum delivery. This study reveals (1) school organizational characteristics are similar across schools, both in urban and rural areas; (2) school conditions do not differentiate between more effective and less effective schools, since the educational resources are distributed and delivered from the district office. However, school conditions do differentiate between rural and urban schools; and (3) curriculum delivery differentiates between more effective and less effective schools in urban areas but not in rural areas. Curriculum delivery also differentiates between rural and urban schools.

Above all, this study has employed the case study approach with mixed methods design to explore the effective schooling processes in China. One of the limited studies on SER conducted in China (Tang, 2005) centers on how to implement school effectiveness evaluation in China. However, Tang focuses on a model construction for evaluating school effectiveness, and he only selected two middle schools for a pilot study of that model. The present study has involved 12 schools and based its conclusions on 300 classroom observations and 60 teacher interviews, as well as quantitative data. Thus, on the one hand, it presents a richer profile of Chinese elementary schools and classrooms, and on the other hand, it could do much to introduce Chinese scholars to better methods for conducting research on school effectiveness and school improvement in the country.

Implications

One implication of this study is that different countries should learn from each other's good educational practices. On the one hand, this study reveals that some effective schooling processes and classroom teaching processes in particular are common across

cultures. This means that one country can learn good educational experiences from another

country in spite of the different education systems and different cultures. This also supports

the possibility and advantages of establishing an international teacher observation system

(e.g., Teddlie, 2005).

China can learn some good educational practices from western countries. For

example, the district-level examinations presented in this study have made teachers teach to

the test and schools to ignore non math or Chinese language courses. The reasons are (1) the

district-level examinations are norm-referenced, and the results are used to rank schools and

teachers; and (2) the examinations include limited number of courses, mostly math and

Chinese language. A school and its teachers must focus on math and Chinese language

courses and teach to test in order to excel. In order to change this situation, the school

districts in China may consider adopting some good western testing practices such as the

Louisiana Educational Assessment Program for the 21st Century (LEAP 21). In spite of the

criticism of the LEAP 21 (e.g., it is against poverty-riddled schools by using the same

standard that is set for the white suburban schools of the state), what China could learn is the

testing type (a criterion-referenced testing), and the multiple subjects included (e.g., English

Language Arts, Mathematics, Science, and Social Studies).

Western countries can also learn some good educational practices from China. For

example, all the 12 elementary schools presented in this study offer an English course. In

fact, English is a required course for all students from K-16 in China in order for the young

generation to become global citizens. Most elementary schools in the USA, however, do not

require students to learn any foreign languages. This, to some extent, might narrow American

students' viewpoints and impede them in a cross-cultural communication. Therefore, schools in the USA should consider offering a foreign language to students.

Nevertheless, when one country adopts another country's educational model, it should consider whether there is a good model across countries and whether the model works in the same way in different countries taking into account different cultures and educational systems. For example, one of the objectives of the new curriculum reform in China, which was implemented in 2001, is to emphasize group activities in class, a good practice in western countries. However, with 50 or 60 students in a class in China, it is difficult to manage the classroom, especially if the students are divided into more than 10 groups. Therefore, the large class size in China to some extent makes the reform become impractical.

Another example is the developmental teacher evaluation, which has been successfully implemented in western countries and has been recently introduced to China to meet the new teacher evaluation requirements advocated by the new curriculum reform (e.g., an evaluation system of teacher self-evaluation combined with the participation of school leaders, peers, parents and students, where students' test scores are not the sole criterion to evaluate the teacher). However, our study (Liu & Teddlie, in progress) indicates that to what extent the developmental teacher evaluation should be adopted in China is still heatedly discussed both in theory and in practice because of the characteristics of Chinese education system. China is a hierarchical society, and education in China has always been the means for social mobility. In today's China, the national uniform college entrance examination (NUCEE) is almost the only way through which a person can gain a high social status. Under such a highly exam-driven system, Chinese policymakers should reconsider whether they

should completely implement the developmental teacher evaluation in spite of its advantages and success implementations in other countries.

Second, within China rural and urban schools could learn from each other. For example, rural teachers should learn from their urban peers and participate more in the school's policy making, while urban teachers should learn their rural peers' working attitudes—more devotion to their teaching and few complaints. All the interviewed teachers in the sample of schools in this study hope that their salary will be increased; however, rural teachers feel better than urban teachers although their salaries are lower than their urban peers. The major reason is that rural teachers compare their salary to farmers', who have lower annual income, and urban teachers compare their salary to those teachers' in key schools, whose annual income is higher.

Third, the Chinese government needs to increase its investment in education, especially in rural areas. This study indicates that all the schools involved in this study are in poor conditions. For example, P.E., music and art all have limited class equipment. This makes it difficult for students to develop their skills in these areas. Moreover, while all the teachers involved in this study expressed the hope of increasing their welfare, the resources and conditions of urban schools are much better than those of rural schools.

Besides more investment in rural education, other measures should be considered to decrease the big gap between rural and urban education, and I offer three suggestions. First, policies should be developed which would attract more qualified teachers to rural areas. This study shows that quite a few rural teachers are not qualified, especially those transferred from Minban to formal teachers. Once the positions were technically filled, the rural schools have

not hired new teachers for many years. One such policy would be to encourage the unqualified rural teachers to retire earlier, so that more positions would become available for teachers who graduate from formal colleges. Second, rural educational departments and schools should put teachers' in-service learning as a priority, and effective staff professional development programs should be developed.

Third, change the current college enrollment policies and increase rural parents' expectations of children, especially the future expectations. This study shows that one of the differentiable factors between rural and urban schools is what is expected for students, especially what their parents expect for their children. This is partly due to the current college enrollment policy. Although the social mobility function of national college entrance examination has made Chinese parents hold high expectations of children, the seemingly fair test is in fact unfair for rural students. There is disparity in education between rural and urban areas and between developed and undeveloped regions. However, when a university enrolls a student, they consider what province the student is from but do not consider the student is from a rural or an urban school. Thus, a rural student might compete with an urban student in the same province for the same university, putting rural students at a disadvantage. This is a major reason why farmers do not have the same high expectations of their children as urban parents do.

Limitations of This Study and Recommendations for Future Research

The first limitation of this study is that more urban and fewer rural schools (eight urban schools and four rural schools) have been involved in the study. Although the study

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confirms that there is less variance between rural schools than between urban schools, the future studies on SER in China should sample more rural schools.

Second, this study has not selected suburban schools, and thus we know nothing about what the possible differentiable variables might be between more effective and less effective suburban schools. Future studies should consider this factor.

Third, due to regional differences in terms of resources, in addition to the gaps between urban and rural schools, there are also gaps between schools which trace to whether their region is considered a developed or underdeveloped area (Hong, 2001; Wang & Zhou, 2002). However, this study has been conducted in the northeast of China, and the research site Jilin is an economically poor province. Therefore, future studies on SER in China should select both developed areas (e.g., Guangzhou and Shanghai) as well as underdeveloped areas (e.g., Gansu and Ningxia) to see which effectiveness factors are common across areas and which are not. Indeed it would be helpful to compare the differences between rural and urban schools both within and between developed and undeveloped areas.

Fourth, this study has only selected regular elementary public schools. Future studies could extend the sample to middle and high schools. They might also extend to key schools at all schooling phases to see if all key schools are effective, and whether effective school processes are the same in regular and key schools.

Above all, future studies on SER in China might consider adding new variables emerging from this study to the questionnaires. This study reveals some effective schooling processes in China that are different from those described in the SER literature, such as the role of Banzhurens, the role of students, the importance of students' test scores in teacher

evaluation, and parents' concern about the clarity and fairness of the school's payment policy. These variables are unique to China and could be added in the questionnaires for future studies in China.

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APPENDIX A: MAPS

Appendix A1: The map of China

Appendix A2: The map of Jilin Province

Appendix A3: The map of Changchun

Appendix B1: Questionnaires

SCHOOL EFFECTIVENESS AND ASSISTANCE PROGRAM
STUDENT QUESTIONNAIRE

School _____   Teacher _____

DIRECTIONS: We are trying to learn more about students and their work in schools. This is not a test of any sort and will not affect your school work. Your teacher and your principal will not see your answers. There are no right or wrong answers; we simply want you to give us your best answer to each question. When the word parent is used, it means either your mother and father or the people with whom you live and take care of you.

1. Name _____

ANSWER THE FOLLOWING QUESTIONS BY DARKENING THE NUMBER OF THE RIGHT OF THE BEST ANSWER. PICK ONLY ONE FOR EACH QUESTION! ! !

2. How old are you today?

8 years old (or younger) -- ☐
9 years old -- ☐
10 years old -- ☐
11 years old -- ☐
12 years old -- ☐
13 years old -- ☐
15 years old (or older) -- ☐

3. Are you a boy or a girl?

Boy -- ☐
Girl -- ☐

4. What grade are you in?

3rd grade -- ☐
4th grade -- ☐
5th grade -- ☐
6th grade -- ☐

5. How many years have you been at this school? This is my_____ year.

1st year -- ☐
2nd years -- ☐
3rd years -- ☐
4th years -- ☐
5th years -- ☐
6th years -- ☐

ANSWER THE FOLLOWING QUESTIONS BY DARKENING THE NUMBER TO THE RIGHT OF THE CORRECT ANSWER. REMEMBER, NO ONE WILL SEE YOUR ANSWERS EXCEPT THOSE OF US FROM THE LOUISIANA

DEPARTMENT OF EDUCATION, SO PLEASE TELL US JUST WHAT YOU THINK.   (Pick only one answer for each question.)

6. I feel safe at my school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

7. Students in <u>my classes</u> often interrupt the teacher and disturb other students.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

8. This school is a safe place to work and learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

9. Most students in <u>my classes</u> follow class rules.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

10. My friends feel safe at this school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

11. I know the rules for good behavior in the hallways, the playground, and the school cafeteria.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

12. How far would you like to go in school?

Finish grade school -- ☐
Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

13. How far do you think most students here would like to go in school?

Finish grade school -- ☐

Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

14. Think of the teacher <u>you like the best</u>, how far does this teacher believe you will go in school?

Finish grade school -- ☐
Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

15. Think of your teacher(s). Would your teacher(s) say you can do school work better, the same, or worse than other people your age?

Better than all of them -- ☐
Better than most of them -- ☐
About the same -- ☐
Worse than most of them -- ☐
Worse than all of them -- ☐

16. Think of your parents. How far do you think your parents believe you will go in school?

Finish grade school -- ☐
Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

17. Do your parents say you can do school work better, the same or worse than your friends?

Better than all of them -- ☐
Better than most of them -- ☐
About the same -- ☐
Worse than most of them -- ☐
Worse than all of them -- ☐

18. How many students in <u>this school</u> try hard to get good grades on their tests?

Almost all of the students -- ☐
Most of the students -- ☐
Half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

19. How many students in <u>this school</u> work hard to get better grades on the their tests than their   friends do?

Almost all of the students -- ☐
Most of the students -- ☐
Half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

20. How important do most of the student in this school feel it is to do well in school ?

They feel it is very important -- ☐
They feel it is important -- ☐
They feel it is somewhat important -- ☐
They it is not very important -- ☐
They feel it is not important at all -- ☐

21. Compared to students in other schools, how much do students in this school learn?

They learn a lot more in this school -- ☐
They learn a little more in this school -- ☐

About the same as in other school -- ☐
They learn a little bit less in this school -- ☐
They learn a lot less in this school -- ☐

22. How often do teachers in <u>your school</u> try to help students who do badly on their school work?

They always try to help -- ☐
They usually try to help -- ☐
They sometimes try to help -- ☐
They seldom try to help -- ☐
They never try to help -- ☐

23. How important is it to teachers in <u>your school</u> that their students learn their school work?

It is the most important thing to the teachers -- ☐
It is very important to the teachers -- ☐
It is somewhat important to the teachers -- ☐
It is not very important to the teachers -- ☐
It is not important at all to the teachers -- ☐

24. How many students in <u>your school</u> make fun of or tease students who get real good grades?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
None of the students -- ☐

25. I always do my homework even if it is very difficult.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

26. People like me will never do well in school even though we try hard.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

27. I can do well in my English class if I work hard.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

28. You have to be lucky to get good grades in this school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

29. I can do well in my math class if I work hard.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐

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Disagree -- ☐
Strongly disagree -- ☐

30. I learn a lot in my English class.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

31 My teacher teaches us a lot in my math class.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

32 My teachers teach me things that I need to know.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

33 My teachers use different ways of teaching to keep the class interesting.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

34. My teachers grade me fairly in class.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

35. My teacher always checks or reviews homework when I bring it back to school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

36. My parents often check with my teacher to see how well I am doing in school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

37. My parents help me with my homework if I need help.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐

Strongly disagree -- ☐

38. I have a special place at home where I always do my homework.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

39. My parents care about the grades I get in school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

40. I always finish my homework before I go to school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

41 My parents often help out around my school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

42. Please list below the three best things about your school.

43. Please list below the three worst things about your school.

SCHOOL EFFECTIVENESS AND ASSISTANCE PROGRAM
TEACHER QUESTIONNAIRE

SCHOOL CODE_____GRADE LEVEL_____

TEACHER NAME_____ _____

DIRECTIONS: The information which you give us on this questionnaire is <u>confidential</u>. No one will see your answers except research staff members at the Louisiana State University. Reports will be made with data summed at the school level, and no one person will be identified with his/her particular information. After your questionnaire has been entered onto computer files, it will be destroyed. <u>Complete confidentiality is assured.</u> It is important that you be candid in your answers.

ANSWER THE FOLLOWING QUESTIONS BY DARKENING THE NUMBER TO THE RIGHT OF THE BEST ANSWER. PICK ONLY ONE ANSWER FOR EACH QUESTION! ! !

1. How long have you taught school (including time teaching at other schools)?

<div align="right">

This is my first year -- ☐
1-4 years -- ☐
5-9 years -- ☐
10 years or more -- ☐

</div>

2. How long have you taught in <u>this school</u>?

<div align="right">

This is my first year -- ☐
1-4 years -- ☐
5-9 years -- ☐
10 years or more -- ☐

</div>

3. How much formal preparation do you have?

<div align="right">

Bachelor's degree -- ☐
Some graduate work but less than Master's degree -- ☐
Master's degree -- ☐
More than Master's degree but not Doctorate-- ☐
Doctorate -- ☐

</div>

4. How many days have you been absent, excluding professional days, so far <u>this school year</u>?

<div align="right">

1 or 2 days – ☐
3 or 4 days – ☐
5 or 6 days – ☐
7 or 8 days – ☐
9 or more days -- ☐

</div>

5. How did you feel about your assignment to this school before coming here?

<div align="right">

Very happy about the assignment -- ☐
Somewhat happy about the assignment -- ☐
No feelings one way or the other -- ☐
Somewhat unhappy about the assignment -- ☐
Very unhappy about the assignment -- ☐

</div>

6. What is the general reputation of this school among teachers outside the school?

<div align="right">

Among the best -- ☐
Better than average -- ☐
About average -- ☐
Below average -- ☐
A poor school – ☐

</div>

7. Your school provides staff with a safe environment.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

8. If you have a discipline problem, your school's administration provides you with the support and help that you need.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

9. Your school provides students with a safe environment.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

10. Most discipline problems are handled at the classroom level.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

11. This school is a safe place to work and learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

12. The discipline policy at your school is clearly stated and consistently enforced.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

13. On the average, what level of achievement can be expected of the students in your school?

Much above national norm -- ☐
Slightly above national norm -- ☐
Approximately at national norm -- ☐
Slightly below national norm -- ☐
Much below national norm -- ☐

14. What percent of the students in your school do you expect to complete high school?

90% or more -- ☐
70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

15. What percent of the students in your school do you expect to attend college?

90% or more -- ☐

70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

16. How many of the students in <u>your school</u> are capable of getting mostly A's and B's?

90% or more -- ☐
70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

17. How would you rate the academic ability of <u>your school's students</u> compared to other schools?

Ability here is much higher -- ☐
Ability here is somewhat higher -- ☐
Ability here is about the same -- ☐
Ability here is somewhat lower -- ☐
Ability here is much lower -- ☐

18. Do you encourage your students who do not have sufficient economic resources to aspire to go to college or some other form of higher education?

Always – ☐
Usually -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐

19. How many teachers in your school encourage students to seek extra school work so that they (the students) can get better grades?

Almost all of the teachers -- ☐
Most of the teachers -- ☐
About half of the teachers -- ☐
Some of the teachers – ☐
Almost none of the teachers -- ☐

20. How many students in <u>your school</u> will try hard to do better school work than their schoolmates ?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

21. How many students in <u>your class</u> will try hard to do better school work than their classmates ?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

22. In <u>this school</u>, there is a great deal that teachers can do to insure that all their students achieve at a high level.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

23. In <u>my class</u>, there is a great deal <u>I</u> can do to insure that all my students achieve at a high level.

Strongly agree -- ☐
Agree -- ☐

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Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

24. To what extent do you think teachers' <u>attitudes</u> toward their students affect their students' achievement?

They have a great deal of effect on student achievement -- ☐
They have substantial effect on student achievement -- ☐
They have some effect on student achievement -- ☐
They do not have much effect on student achievement -- ☐
They have no effect at all -- ☐

25. To what extent do you think teaching <u>methods</u> affect students' achievement?

They have a great deal of effect on student achievement -- ☐
They have substantial effect on student achievement -- ☐
They have some effect on student achievement -- ☐
They do not have much effect on student achievement -- ☐
They have no effect at all -- ☐

26. Teachers at your school participate in the development of school policies on a regular basis.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

27. Teachers at this school are often involved in school improvement activities.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

28. The administrator(s) at your school encourage(s) active faculty involvement in the school improvement process.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

29. The principal emphasizes faculty participation in decision making at the school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

30. How often do the principal and/or other administrators in this school assist and give support to teachers in ways to improve their students' academic achievement?

Very often -- ☐
Often -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐

31. The principal is often seen throughout the school making informal contacts with teachers and students.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐

Disagree -- ☐
Strongly disagree -- ☐

32. When you are trying to improve your instructional program, how easy is it to get the principal's assistance?

Very easy –☐
Easy -- ☐
Varies from time to time –☐
Difficult – ☐
Very difficult –☐

33. In your school, the principal actively protects time for instruction by controlling interruptions, setting up a schedule that maximizes the opportunity to learn, etc.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

34. The principal at this school does a very good job in getting resources for the school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

35. This school does a good job in preparing students in mathematics and language arts.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

36. Students at your school are taught in ways that allows them to relate what they are studying to their everyday lives.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

37. Teachers at this school use a variety of teaching strategies and learning activities to help their students learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

38. Students at this school are provided hands-on, activity-based instructional experiences in most of their classes.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

39. Students are assessed in a variety of ways at your school, which gives them ample opportunity to demonstrate what they know.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐

Strongly disagree -- ☐

40. How many parents at this school want feedback from the principal and teachers as to how their children are doing in school?

Almost all of the parents -- ☐
Most of the parents -- ☐
About half of the parents -- ☐
Some of the parents -- ☐
Almost none of the parents -- ☐

41. What proportion of your students' parents do you recognize on sight?

Nearly all -- ☐
About 75% -- ☐
About 50% --☐
About 25% -- ☐
Only a few -- ☐

42. Most parents of students at this school provide an effective learning environment for their children at home.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

43. How many parents at this school care about what grades their children earn?

Almost all of the parents -- ☐
Most of the parents -- ☐
About half of the parents -- ☐
Some of the parents -- ☐
Almost none of the parents -- ☐

44. Many parents are often involved in activities at the school (fund raising, serving as aides, etc.)

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

45. The teaching profession is well respected in my community.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

46. I usually look forward to coming to work at my school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

47. How much do you enjoy teaching at this school?

Very much -- ☐
Much -- ☐
Average -- ☐
Little -- ☐
Not at all -- ☐

48. If I had a choice between teaching at another school or staying here, I would stay here.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

49. A primary focus of staff development at this school is to help teachers develop skills that will directly enhance teaching.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

50. The faculty and the principal at this school often plan staff development activities together.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

51. The staff development program at this school is regularly evaluated by the faculty.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

52. During the past two years, staff development activities at this school have addressed issues and skills that were important to me.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

53. How would you rate the staff development activities at this school compared to other schools?
The quality is much higher at my school -- ☐
The quality is somewhat higher at my school -- ☐
The quality is about the same -- ☐
The quality is somewhat lower at my school -- ☐
The quality is much lower at my school -- ☐

SCHOOL EFFECTIVENESS AND ASSISTANCE PROGRAM
PRINCIPAL QUESTIONNAIRE

SCHOOL CODE _____

DIRECTIONS: The information which you give us on this questionnaire is <u>confidential.</u> <u>No one</u> will see your answers except research staff members at the Louisiana State University. Reports will be made with date summed at the school level, and no one person will be identified with his/her particular information. After your questionnaire has been entered onto computer files, it will be destroyed. <u>Complete confidentiality is assured</u>. It is important that you be candid in your answers.

ANSWER THE FOLLOWING QUESTIONS BY DARKENING THE NUMBER TO THE RIGHT OF THE BEST ANSWER. PICK ONLY <u>ONE ANSWER</u> FOR EACH QUESTION ! ! !

1. How long have you been a principal (including time as a principal at other schools)?

<div align="right">

This is my first year -- ☐
1-4 years -- ☐
5-9 years -- ☐
10 years or more -- ☐

</div>

2. How long have you been a principal at <u>this school</u>?

<div align="right">

This is my first year -- ☐
1-4 years -- ☐
5-9 years -- ☐
10 years or more -- ☐

</div>

3. How much formal preparation do you have?

<div align="right">

Bachelor's degree -- ☐
Some graduate work but less than Master's degree -- ☐
Masters degree -- ☐
More than Master's degree but not Doctorate -- ☐
Doctorate -- ☐

</div>

4. How many days have you been absent, excluding professional days, so far <u>this school year</u>?

<div align="right">

1 or 2 days – ☐
3 or 4 days – ☐
5 or 6 days – ☐
7 or 8 days – ☐
9 or more days – ☐

</div>

5. How did you feel about your assignment to this school before coming here?

<div align="right">

Very happy about the assignment -- ☐
Somewhat happy about the assignment -- ☐
No feelings one way or the other -- ☐
Somewhat unhappy about the assignment -- ☐
Very unhappy about the assignment -- ☐

</div>

6. What is the general reputation of this school among educators outside the school?

<div align="right">

Among the best -- ☐
Better than average -- ☐
About average -- ☐
Below average -- ☐
A poor school -- ☐

</div>

7. Your school provides staff with a safe environment.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

8. If faculty members have discipline problems, you and your school's administrative staff provide them with the support and help that they need.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

9. Your school provides students with a safe environment.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

10. Most discipline problems are handled at the classroom level.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

11. This school is a safe place to work and learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

12. The discipline policy at this school is consistently enforced.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

13. On the average, what level of achievement can be expected of the students in your school?

Much above national norm -- ☐
Slightly above national norm -- ☐
Approximately at national norm -- ☐
Slightly below national norm -- ☐
Much below national norm -- ☐

14. What percent of the students in your school do you expect to complete high school?

90% or more -- ☐
70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

15. What percent of the students in <u>your school</u> do <u>you</u> expect to attend college?

90% or more -- ☐
70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

16. How many of the students in <u>your school</u> are capable of getting A's and B's?

90% or more -- ☐
70% to 89% -- ☐
50% to 69% -- ☐
30% to 49% -- ☐
Less than 30% -- ☐

17. How would you rate the academic ability of <u>your school's students</u> compared to other schools?

Ability here is much higher -- ☐
Ability here is much higher -- ☐
Ability here is somewhat higher -- ☐
Ability here is about the same -- ☐
Ability here is somewhat lower -- ☐
Ability here is much lower -- ☐

18. Do you encourage your students who do not have sufficient economic resources to aspire to go to college or some other form of higher education?

Always -- ☐
Usually -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐

19. How many teachers in your school encourage students to do extra school work to improve their grades?

Almost all of the teachers -- ☐
Most of the teachers -- ☐
About half of the teachers -- ☐
Some of the teachers -- ☐
Almost none of the teachers -- ☐

20. How many students in <u>your school</u> try hard to do better school work than schoolmates?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

21. How many students in <u>your school</u> would do extra work to improve their grades?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

22. It is possible for a principal, with the cooperation of the school's teachers, to change a low achieving school into a high achieving school

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

23. There is a great deal that I, as the principal, can do to insure that all of the students in my school achieve at a high level.

<div align="right">Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐</div>

24. As a principal, how much effect do you think <u>you</u> have on your teachers' ability to deliver effective classroom instruction?

<div align="right">Very great effect -- ☐
Substantial effect -- ☐
Some effect -- ☐
Very little effect -- ☐
No effect at all -- ☐</div>

25. As a principal, how much effect do you think you have on students' academic achievement?

<div align="right">Very great effect -- ☐
Substantial effect -- ☐
Some effect -- ☐
Very little effect -- ☐
No effect at all -- ☐</div>

26. Teachers at your school participate in the development of school policies on a regular basis.

<div align="right">Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐</div>

27.   Teachers at this school are often involved in school improvement activities.

<div align="right">Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐</div>

28. As the principal, I encourage active faculty involvement in the school improvement process.

<div align="right">Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐</div>

29. As the principal, I emphasize faculty participation in decision making at my school.

<div align="right">Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐</div>

30. How often do you suggest ways of improving student achievement to your teachers?

<div align="right">Very often -- ☐
Often -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐</div>

31. I make frequent informal contacts with teachers and students during the school day.

<div align="center">277</div>

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

32. How often do you meet with the teachers as a group to discuss ways of improving the instructional program at your school?

<div align="right">
Very often -- ☐
Often -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐
</div>

33. I actively protect time for instruction in my school by controlling interruptions, setting up a schedule that maximizes the opportunity to learn, etc.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

34. I believe that the administration of this school does a very good job in getting resources for the school.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

35. This school does a good job in preparing students in mathematics and language arts.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

36. Students at this school are taught in ways that allows them to relate what they are studying to their everyday lives.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

37. Teachers at this school use a variety of teaching strategies and learning activities to help their students learn.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

38. Students at this school are provided hands-on, activity-based instructional experiences in most of their classes.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

39. Students are assessed in a variety of ways at your school, which gives them ample opportunity to demonstrate what they know.

<div align="center">278</div>

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

40. How many of the parents want feedback from the principal and teachers as to how their children are doing in school?
Almost all of the parents – ☐
Most of the parents -- ☐
About half of the parents -- ☐
Some of the parents -- ☐
Almost none of the parents -- ☐

41. What proportion of your students' parents do you recognize on sight?

Nearly all -- ☐
About 75% -- ☐
About 50%　--☐
About 25% -- ☐
Only a few -- ☐

42. Most parents of students at this school provide an effective learning environment for their children at home.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

43. How many parents of students at this school care about the grades their children earn?

Almost all of the parents – ☐
Most of the parents -- ☐
About half of the parents -- ☐
Some of the parents -- ☐
Almost none of the parents -- ☐

44. Many parents are often involved in activities at the school (fund raising, serving as aides, etc.)

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

45. The educational profession (K-12 grade levels) is not very well respected in my community.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

46. I usually look forward to going to work at my school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

47. How much do you enjoy being the principal at this school?

Very much -- ☐
Much -- ☐

Average -- ☐
Little -- ☐
Not at all -- ☐

48. If I had a choice between being principal at another school or staying here, I would stay here.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

49. A primary focus of staff development at this school involves helping teachers develop skills that will directly enhance classroom teaching.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

50. I often plan staff development activities <u>together</u> with members of my faculty.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

51. The staff development program at your school is regularly evaluated by the faculty.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

52. During the past two years, Staff development activities at this school have addressed issues and skills that were of importance to the faculty.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

53. How would you rate the staff development activities at <u>your school</u> compared to other schools?

The quality is much higher at my school -- ☐
The quality is somewhat higher at my school -- ☐
The quality is about the same -- ☐
The quality is somewhat lower at my school -- ☐
The quality is much lower at my school -- ☐

SCHOOL EFFECTIVENESS AND ASSISTANCE PROGRAM
PARENT QUESTIONNAIRE

DIRECTIONS: We are trying to learn more about students and their schools in Louisiana. Your opinion about your child's school is a very important part of that information. The information which you give us on this questionnaire is <u>confidential.</u>   <u>No one</u> will see your answers except research staff members at the Louisiana State University. Reports will be made using all of the data, and no one person will be identified with his/her data.   After your questionnaire has been entered onto computer files, it will be destroyed. <u>Complete confidentiality is assured.</u>   It is important that you be candid in your answers.

PLEASE DARKEN THE OVEL BESIDE THE SINGLE (ONE) BEST ANSWER TO EACH QUESTION.

1. In what grade is your child (the child that brought this questionnaire home from school)?

Kindergarten -- ☐
1st grade -- ☐
2nd grade -- ☐
3rd grade -- ☐
4th grade -- ☐
5th grade -- ☐

2. This is my child's _____ year at this school.

1st year -- ☐
2nd year -- ☐
3rd year -- ☐
4th year -- ☐
5th year -- ☐
6th year -- ☐

3. How did you feel about your child's assignment to this school?

Very happy about the assignment –- ☐
Somewhat happy about the assignment – ☐
No feelings one way or the other – ☐
Somewhat unhappy about the assignment – ☐
Very unhappy about the assignment –- ☐

4.   What is the general reputation of this school among people in the community?

Among the best -- ☐
Better than average -- ☐
About average -- ☐
Below average -- ☐
A poor school -- ☐

5. Your child's school provides her/him with a safe and orderly environment.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

6. I feel safe when I visit my child's school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

7. If there is a discipline problem at your child's school, the principal (and administrative staff) provide teachers with the support and help that they need to handle it.

$$\begin{array}{r} \text{Strongly agree -- }\square \\ \text{Agree -- }\square \\ \text{Don't know -- }\square \\ \text{Disagree -- }\square \\ \text{Strongly disagree -- }\square \end{array}$$

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

8. Discipline problems or unruly students <u>seldom</u> interrupt your child's classes.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

9. Your child's school provides a safe place to work and learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

10. The discipline policy at your child's school is clearly stated and consistently enforced.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐

11. On the average, what level of achievement can be expected of the students in your child's school?

Much above national norm -- ☐
Slightly above national norm -- ☐
Approximately at national norm -- ☐
Slightly below national norm -- ☐
Much below national norm -- ☐

12. How far do <u>you</u> think your child will go in school?

Finish grade school -- ☐
Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

13. How far do you think <u>your child's teacher</u> believes he/she will go in school?

Finish grade school -- ☐
Go to high school for a while -- ☐
Finish high school -- ☐
Go to college for a while -- ☐
Finish college -- ☐

14. Does your child do schoolwork better or worse than her/his classmates?

Better than all of them -- ☐
Better than most of them -- ☐
About the same -- ☐
Worse than most of them -- ☐
Worse than all of them -- ☐

15. How would you rate the academic ability of the students in <u>your child's</u> school compared to other schools?

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<div align="right">
Ability is much higher -- ☐
Ability is somewhat higher -- ☐
Ability is about the same -- ☐
Ability is somewhat lower -- ☐
Ability is much lower -- ☐
</div>

16. How many students at your child's school try hard to get good grades?

<div align="right">
Almost all of the students -- ☐
Most of the students -- ☐
Half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐
</div>

17. There is competition among the students at my child's school to achieve at higher levels.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

18. How important do students in <u>your child's</u> classes feel it is to do school work well?

<div align="right">
They feel it is very important -- ☐
They feel it is important -- ☐
They feel it is somewhat important -- ☐
They it is not very important -- ☐
They feel it is not important at all -- ☐
</div>

19. Compared to students in other schools, how much do the students at your child's school learn?

<div align="right">
They learn a lot more in her/his school -- ☐
They learn a little more in her/his school -- ☐
About the same as in other schools -- ☐
They learn a little bit less in her/his school -- ☐
They learn a lot less in her/his school -- ☐
</div>

20. How often do teachers in your child's school try to help students who do badly on their school work?

<div align="right">
They always try to help -- ☐
They usually try to help -- ☐
They sometimes try to help -- ☐
They seldom try to help -- ☐
They never try to help -- ☐
</div>

21. How important is it to teachers in your child's school that their students learn their school work?

<div align="right">
It is the most important thing to the teachers -- ☐
It is very important to the teachers -- ☐
It is somewhat important to the teachers -- ☐
It is not very important to the teachers -- ☐
It is not important at all to the teachers -- ☐
</div>

22. Your child can do well in school if he/she really tries.

<div align="right">
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree -- ☐
</div>

23. To what extent do <u>your attitudes</u> toward your child's school and school work affect her/his achievement?

<div align="center">283</div>

A great deal of effect – ☐
Substantial effect – ☐
Some effect – ☐
Little effect -- ☐
No effect at all – ☐

24. I encourage my child to complete assignments even if I think he/she is unable to do their schoolwork.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

25. How many students in your child's school care about the grades they earn?

Almost all of the students -- ☐
Most of the students -- ☐
Half of the students -- ☐
Some of the students -- ☐
Almost none of the students -- ☐

26. How many students in your child's school make fun of or tease students who get good grades?

Almost all of the students -- ☐
Most of the students -- ☐
About half of the students -- ☐
Some of the students -- ☐
None of the students -- ☐

27. How often does the principal (and other administrative staff) at your child's school assist and support parents in ways to improve their child's academic achievement?

Very often -- ☐
Often -- ☐
Sometimes -- ☐
Seldom -- ☐
Never -- ☐

28. The principal at my child's school is often seen throughout the school making contacts with teachers and students.
Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

29.   The principal at your child's school does a very good job in getting resources to the school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

30. The principal at your child's school recognizes who you are when you visit the school campus.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

31. The principal at your child's school has organized the school's schedule to maximize the students' opportunities to learn.

Strongly agree -- ☐

Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

32. The principal at your child's school actively encourages parental participation in the school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

33. Your child's school does a good job of preparing students in mathematics.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

34. Your child's school does a good job of preparing students in language arts.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

35. Students at your child's school are taught in ways that allows them to relate what they are studying to their everyday lives.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

36. Teachers at your child's school use a variety of teaching strategies and learning activities to help their students learn.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

37. My child's teachers use different ways of teaching to keep the class interesting.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

38. My child's teachers grade fairly in class.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

39. I always help my child with homework if he/she needs help.

Strongly agree -- ☐
Agree -- ☐

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Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

40. There is a special place at home where my child always does her/his homework.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

41. I see to it that my child always finishes her/his homework before going to school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

42. I often help out around my child's school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

43 Reports concerning the progress that my child is making in school (progress reports, report cards) are adequate to answer the questions I have regarding her/his school performance.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

44. The community where I live is actively involved in my child's school.

Strongly agree -- ☐
Agree -- ☐
Don't know -- ☐
Disagree -- ☐
Strongly disagree – ☐

45. Please list below the three <u>best</u> things about your child's school.

(1)

(2)

(3)

46. Please list below the three <u>worst</u> things about your child's school.

(1)

(2)

(3)

Appendix B2: Classroom Observation Systems

CLASSROOM SNAPSHOT

DIRECTIONS: For each classroom scan, count the number of children engaged in interactive, non-interactive, and off-task activities. Record that number in the appropriate box.

TIME PERIOD	Time 1	Time 2	Time 3	Time 4	Time 5	Time 6
INTERACTIVE TIME-ON-TASK: Reading Aloud, Making Assignments, Instruction/Explanation, Discussion/Reviewing Assignments, Practice Drill, Taking Test/Quiz						
NON-INTERACTIVE TIME-ON-TASK: Reading Silently, Written Assignments, Students Working Together Without Direct Adult Supervision						
OFF TASK: Social Interaction, Student Uninvolved, Being Disciplined, Classroom Management						
TOTAL NUMBER OF STUDENTS						
TIME SCAN STARTED						

Observer _____   School _____

Teacher _____   Grade _____

Date _____   Time (Start/End) _____

Adults Present _____   Students Present _____

LCET Summary Form

Indicator	Score (1-4)
IIA1: Organizes Available Space, Materials, and/or Equipment to Facilitate Learning.	
IIA2: Promotes A Positive Learning Climate	
IIB1: Manages Routines and Transitions in a Timely Manner.	
IIB2: Manages and/or Adjusts Time Allotted for Planned Activities.	
IIC1: Establishes Expectations for Learner Behavior.	
IIC2: Uses Monitoring Techniques to Facilitate Learning.	
IIIA1: Uses Techniques Which Develops Lesson Objectives.	
IIIA2: Sequences Lesson to Promote Learning.	
IIIA3: Uses Available Teaching Materials and Aids to Achieve Lesson Objectives.	
IIIA4: Adjusts Lesson When Appropriate.	
IIIB1: Presents Content at a Developmentally Appropriate Level.	
IIIB2: Presents Accurate Subject Matter.	
IIIB3: Relates relevant examples, unexpected situations, or current events to the content.	
IIIC1: Accommodates Individual Differences	
IIIC2: Demonstrates Ability to Communicate Effectively with Students.	
IIIC3: Stimulates and Encourages Higher Order Thinking at the Appropriate Developmental Levels.	
IIIC4: Encourages Student Participation.	
IIID2: Monitors Ongoing Performance of Students. (Informal Assessment)	
IIID3: Provides Timely Feedback to Students Regarding Their Progress (Informal and Formal Assessments)	

4   Demonstrates Excellence - Indicates that the teacher does an outstanding job in this Attribute or Component. No area for improvement is readily identifiable.

3   Area of Strength - Indicates the teacher consistently meets and sometimes exceeds expectations for performance in this Attribute or Component. Performance can be improved in the areas indicated, but current practices are clearly acceptable.

2   Needs Improvement - Indicates the teacher's performance sometimes, but not always meets expectations in this Attribute or Component. Improvement activities are required for performance to consistently meet standards.

1   Unsatisfactory - Indicates the teacher's performance in this Attribute or Component is not acceptable. Improvement activities must be undertaken immediately.

Appendix B3: School Observation Checklist

SCHOOL OBSERVATION CHECKLIST

School: _____ Date: _____

Observer: _____

Note: Not all items on this checklist will be appropriate to all schools. Every team member should complete sections 1-3. Sections 4-10 should be divided among the team members. Any notable observations relevant to unassigned sections should be recorded.

Section I.   Teacher
    1.   Note number/percent of teachers arriving:
        a.   early (_____   _____ %)
        b.   at school starting time (_____   _____ %)
        c.   late (_____   _____ %)
        Comments:_____
    2.   Number of breaks allowed per day:_____
    3.   Length of breaks allowed:_____
    4.   Number of teachers leaving the lounge after break has ended:_____
    5.   Number of teachers taking breaks in lounge:_____
        Comment:_____
    6.   Note type(s) of information posted on lounge bulletin board:_____
    7.   Note comments, statements, and conversations of faculty, reflecting their attitudes and perceptions of their school in general, students, principal, local school district personnel, etc._____
    8.   Based on observations of teachers, do they appear to be satisfied with their jobs as:
        a.   Professional educators:_____
        b.   Teachers with this particular school:_____
Further Comments: _____

Section II.   Principal Involvement
    1.   How often is the principal seen in the hallways during the day?_____
    2.   In the classrooms?

        _____
    3.   Comments:

        _____
    4.   Describe the principal's rapport with the students (as indicated through observations).

        _____
    5.   Describe the principal's rapport with the faculty (as indicated through observations). _____

6.   Are there visible signs of the principal's implementation of policies on personnel matters, student discipline, student achievement, in-service, safety and health, behavior codes, etc.?

_____

Section III.   Assistant Principal(s) Involvement

1.   How often is the assistant principal(s) see in the hallways during the day?

_____

2.   In the classrooms?

_____

3.   Comments:

_____

4.   Describe the assistant principal's rapport with the students (as indicated through observations).

_____

5.   Describe the assistant principal's rapport with the faculty (as indicated through observations).

_____

6.   Are there visible signs of the assistant principal's implementation of policies on personnel matters, student discipline, student achievement, in-service, safety and health, behavior codes, etc.?

_____

Section IV.   School Arrival

1.   Note the proportion of students (a few, some, many, most, all) who arrive:

    a.   early (_____%)
    b.   at school starting time (_____ _____
             %)
    c.   late(_____ _____%)

2.   Note the number of duty teachers when students arrive at school:_____

3.   Do there appear to be regimens or constraints placed on students' behavior? (e.g., strict structure placed on before-school behavior; students appear somewhat independent, with a few rules governing activities; students' activities are unrestricted.)

_____

4.   Are there any security devices/regimens? (e.g., metal detectors, student ID badges, security officers)

_____

5.   How are rules and regimens implemented? (e.g., teachers and/or staff use authoritative control; some guidance from staff, but students are self-disciplined)

_____

6.   How do students respond to the rules and regiments? Describe their general before-school behavior. _____

Further Comments: _____

Section V. Playground/School Grounds

1. Number of recess periods: _____ Length: _____
2. Monitoring of playground equipment/school grounds; number of duty teachers.

    _____

3. Note amounts, types, and condition of playground equipment.

    _____

4. Are there specific rules (formal or informal) regarding where students can congregate during recess?   (e.g., students can/cannot go in their classroom(s) early; males gather near gym, girls near auditorium; playgrounds segregated by grade)

    _____

5. Is there scheduled use of playground equipment, organized play, etc.?   To what degree are the students independent in their playground activities?

    _____

6. Are there specific playground rules and discipline policies in place? Describe each?   If so, describe them. _____
7. Do the students respond quickly to the school bell at the end of the recess period?

    _____

Further Comments: _____

Section VI.   Custodial Staff and Physical Appearance of School

		Somewhat Unclean	Clean	Very Clean
1.	School grounds, playground(s)	a	b	c
2.	Hallways, offices, bathroom(s)	a	b	c
3.	Classrooms	a	b	c

4. How much interaction is there between faculty and/or students and custodial staff?

    _____

5. What is the general attitude of faculty toward custodial staff?
    Negative   Indifferent   Positive
6. What is the general attitude of students toward custodial staff?
    Negative   Indifferent   Positive
7. Are some school buildings and facilities in need of repair, replacement, maintenance, etc.?
    walls _____
    building structure _____
    windows _____
    fences _____
    faculty desks, chairs _____
    student desks, chairs _____

Further Comments: _____

Section VII. Cafeteria

    1.   What is the general demeanor of the cafeteria staff?

                _____

    2.   How do students treat the cafeteria staff?

                _____

    3.   Are the students allowed to talk during lunch?

                _____

    4.   What other rules and regulations govern student behavior at lunch time (e.g., clean plate, disposal of trays, etc.)

                _____

    5.   Describe the behavior of students at lunchtime. _____

    6.   Are teachers required to eat lunch with their students? _____

    7.   Are there cafeteria monitors? _____

Section VIII.   Auxiliary Classes

    1.   Are the P.E. classes organized with physical fitness in focus, organized play/exercise, or independent?

                _____

    2.   Who teaches P.E. classes: _____

    3.   What amount and type of P.E. equipment and resources are available?

                _____

    4.   Who teaches music classes? _____

    5.   What amount and type of music class equipment/resources are available? ___

    6.   Who teaches art classes? _____

    7.   What type of art is taught?   What types of art materials are available? _____

                _____

    10.   Does the guidance counselor come into the classroom regularly to lead discussion, provide information, etc. How often?_____
                What is discussed? _____

    11.   What type of special education services/resources are available?   (e.g., autistic classes, signing for the hearing impaired, resource/remediation, etc.)

                _____

    12.   Describe the attitudes of teachers and students of special education classes. Do they appear to be an integral part of the school culture?

                _____

    13.   Are there scheduled visits and/or classes for students with the:
          a.   social welfare worker _____
          b.   school psychologist _____
          c.   dietitian _____
          d.   foreign language teachers _____
          e.   safety instructors _____
          f.   health professional _____
          g.   others _____

    14.   Do these visits appear to interfere with the regular class routine?

                _____

15. What appears to be the attitude of the regular classroom teacher(s) toward these visits? _____

16. In what other classes, extracurricular functions, activities, etc. are students involved? (e.g., plays, field trips, clubs/organizations, etc.)
_____

Further Comments: _____

Section IX.   Hallways and Bulletin Boards

1. What is displayed on walls of hallways? (e.g., artwork of students, awards, posters, banners, announcements, etc.) _____
2. What is displayed on bulletin boards in hallways? _____
3. What are the subject matters of displays around the school? _____
4. Do the displays have specific themes? _____
5. How often do displays change? _____
6. Who is responsible for displays on walls and bulletin boards? _____

Further Comments:_____

Section X.   Library

1. Is there a school library? _____
2. Describe its physical attributes. _____
3. Is there a librarian? _____
   If yes, is he/she _____ full-time? _____ halftime? _____ less than halftime?
4. If the librarian is less than full-time, what are his/her other duties?
_____

5. How are the students scheduled to visit the library?
_____

6. What is the general behavior of students in the library?
_____

7. Does the librarian have structured classes for students in library science? ____
   In general knowledge/various subjects _____
   If not, how is library time used? _____

8. What resources are available in the library (furniture, books, AV equipment, periodicals, professional materials for faculty)?
_____

9. As indicated through observation, what is the general rapport of the librarian with students? _____
   With faculty? _____

Section X.   Other Observations

_____

Appendix B4: Protocols for Interviewing Teachers

- How is the student discipline in your school?
  - Is there clearly stated discipline policy?
  - Is the discipline policy strictly implemented? Please describe that implementation.
  - If students present discipline problems, who is responsible for solving those problems?
- How important is student academic achievement at your school?
  - Does your school's administration use the students' test scores to evaluate a teacher?
  - Has the new curriculum reform changed the approach to teacher evaluation in your school? If so, what are the changes?
  - How important is student academic achievement to the parents of students in your school? Please provide details.
  - How important is student academic achievement to the students in your school? Please provide details.
- What role does the faculty play in your school's decision making?
  - Do teachers in your school have opportunities to participate in the school's policy decision making? If so, how does this happen?
  - Do teachers in your school want to be involved in your school's decision making? Please explain.
- Please describe the teaching in your school.
  - Do the teachers who teach at the same grade use the same teaching materials (textbooks, etc.)? Please explain.
  - Do the teachers at your school "teach to the test"? Please describe how they do that.
  - Have you ever "taught to the test"? If so, please describe how you did that.
  - Who decides your teaching plan for the academic year? Please describe the process whereby this occurs.
  - What is your teaching focus: (1) knowledge mastery, (2) hands-on activities, (3) a combination of knowledge mastery and hands-on activities, or (4) another approach? Please briefly describe your teaching focus.
  - How often does the principal visit your class? Please estimate the number of times per academic year.
  - Does your principal provide instructional assistance when you need it? If so, please describe how he/she does that.
- What are the components of staff development at your school?
  - How would you describe the "ideal teacher" at your school? What kinds of characteristics does that teacher have?
  - What is the focus of staff development at your school? Please provide details.
  - How are staff development plans at your school put together? For instance, do faculty members help develop those goals, or are they put together by the principal, or are they developed at the district level? Please elaborate.
  - What is your opinion of the staff development program at your school?

APPENDIX C: GUIDELINE FOR TRAINING THE CHINESE RESEARCHERS

What Instruments Used in this Study (See Chapter 4 for details)

How to Do Classroom Observations[27]

        Stage 1: Entry into the classroom.   Quietly enter the classroom a little earlier than scheduled, and then sit somewhere in the back of the room.

        Stage 2: The classroom observation process:

- Taking field notes. Besides the description of the physical environment of the classroom (e.g., how the walls look, how the space is used, how people are organized in the space, and the nature of lighting), write down as detailed and concrete as possible what happens in the classroom. Specifically, consider the following: (1) Field notes are descriptive as well as reflective. They should be dated and should record such information as where the observation takes place, who is present, what the physical setting is like, what social interactions occur, and what activities take place during each period of time (e.g., every five minutes). Such words as poor, anger, and uneasy are insufficiently descriptive. Instead, they are interpretive. (2) Reflective field notes describe the observer's own feelings and thoughts about what has been observed (e.g., what sense did you make of the site, people, and situation?). It is recommended that the observation sheet is divided into two colomns: the left side is for description, and the right side is for reflection. Feelings and reflections should be recorded at the time they are experienced, during the classroom observations. (3) Field notes contains quotations, so try to record what teachers and students say in the classroom.
- Every 4-6 minutes, scan the class and record a TOT measurement.
- At or near the end of each classroom observation, complete the summary ratings.
- Interactions with the teacher or the students are limited to the times when the students are engaged in seatwork, if the teacher volunteers to answer questions or suggests participation in the students' work.

        Stage 3: Leaving the classroom.   After observing, give the teacher and the students an oral thank-you or a thank-you card. Upon getting home, summarize each classroom observation.

How to Do Teacher Interviews[28]

      Preparation for the interview.   Carry such items as the interview protocol, pens, and notebooks. Select (with the help of the informant) a quiet, unobtrusive place (e.g., the teacher's office or the school library) for interview. Each interview lasts 40-50 minutes.

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[27] The sources are from LeCompte & Goetz, 1982, pp. 387-400; Patton, 2002, pp. 259-338; Teddlie & Meza, pp. 77-99.

[28] The sources are from Creswell, 2002, 203-209; Johnson & Turner, 2003, pp. 305-308; Patton, 2002, pp. 339-427.

Entry into the field.   Explain to the teacher that this interview is very important for the research, and any information from the interview will be confidential. Establish positive rapport with the interviewee.

During the interview process:

- While listening, write down the key points of the responses, which will help summarize the interview later. An abbreviated form for writing notes (e.g., short phases followed by a dash) may speed up the process.
- The interviewers must always remain nonjudgmental to the responses provided by the interviewee to help reduce the potentially biasing effect of the interviewer. Do not agree or disagree with an answer or give any idea of your personal views on the topic of the question.
- Probes are used to obtain additional information. A probe is a question or comment used to clarify responses or to request more detail. It consists of detail-orientated questions (e.g., When did that happen? Who else was involved?) and elaboration questions (e.g., Could you explain your responses more? What does "not much" mean?)
- Maintain control and enhance the quality of responses. (1) The interviewer must listen carefully to make sure that the responses received provide answers to the questions that are asked, i.e., the interview is working. (2) If the responses are on the right track, techniques such as head nodding and taking notes are used to encourage greater depth in responses. (3) If the responses are off the right track, some techniques can be used to stop a highly verbal respondent, such as stop nodding the head, interject a new question as soon as the respondent pauses for breath, stop taking notes, or call attention to the fact that you've stopped taking notes by flipping the page of the writing pad and sitting back, waiting. When these nonverbal cues don't work, just interrupt the interviewee by saying, for example, "Let me stop you here for a moment because some of what you're talking about now I want to get later in the interview." Then ask the next question from the interview protocol.
- If you know from your own knowledge, or it is clear in context, that the interviewee is telling you something that is simply not true (a deliberate lie, or a lie that the interviewee thinks is true), then take note of it (Shank, 2005, p. 41).

After the interview.   Complete the interview by thanking the interviewed teacher, assuring him/her of the confidentiality of the responses. Upon getting home, make a summary of the interview, including reflections on the quality of information received. Ask questions like: Did I find out what I really to find out in the interview? If not, what was the problem?

APPENDIX D: QUESTIONNAIRE TRANSLATION GUIDELINE

- The translation should try to keep the original meanings of the instruments.
- The translation should be smooth and coherent, and try to avoid using awkward sentences.
- The translation should use appropriate Chinese language so that they can easily be understood by prospective respondents.
- The translation should be accomplished using a back translation process. That is, questionnaires should first be translated into Chinese and then translated back into English (preferably by an independent translator) so that the original and the translated documents can be compared.
- The translation should be modified based on the pilot testing.

APPENDIX E: CODEBOOKS FOR THE QUESTIONNAIRES AND CLASSROOM TEACHING

Codebook for Teacher Questionnaires

The MANOVA of teacher questionnaire has 11 dependent variables: School reputation, Safe and orderly environment, Expectations, Academic norms, Academic efficacy, Collaboration, Leadership, Quality of instruction, Parent/school relationship, Job satisfaction, and Staff development. The score for each dependent variable was calculated as follows:

School reputation = (Item 5 + Item 6)/2
Safe and orderly environment = (Sum of Items 7-12)/6
Expectations = (Sum of Items 13-17)/5
Academic norms = (Sum of Items 18-21)/4
Academic efficacy = (Sum of Items 22-25)/4
Collaboration = (Sum of Items 26-29)/4
Leadership = (Sum of Items 30-34)/5
Quality of instruction = (Sum of Items 35-39)/5
Parent/school relationship = (Sum of Items 40-44)/5
Job satisfaction = (Sum of Items 45-48)/4
Staff development = (Sum of Items 49-53)/5

Codebook for Student Questionnaires

The MANOVA of student questionnaire has six dependent variables: Safe and orderly environment, Expectations, Academic norms, Academic efficacy, Quality of instruction, and Parent/school relationship. The score for each dependent variable was calculated as follows:

Safe and orderly environment = (Sum of Items 6-11)/6
Expectations = (Sum of Items 12-17)/6
Academic norms = (Sum of Items 18-24)/7
Academic efficacy = (Sum of Items 25-29)/5
Quality of instruction = (Sum of Items 30-35)/6
Parent/school relationship = (Sum of Items 36-41)/6

Codebook for Parent Questionnaires

The MANOVA of parent questionnaire has seven dependent variables: School reputation, Safe and orderly environment, Expectations, Academic norms, Leadership, Quality of instruction, and Parent/school relationship. The score for each dependent variable was calculated as follows:

School reputation = (Item 3 + Item 4)/2
Safe and orderly environment = (Sum of Items 5-10)/6
Expectations = (Sum of Items 11-15)/6
Academic norms = (Sum of Items 16-21)/6
Leadership = (Sum of Items 27-32)/6
Quality of instruction = (Sum of Items 33-38)/6
Parent/school relationship = (Sum of Items 39-44)/6

Codebook for Classroom Teachings

The MANOVA of classroom teaching has nine dependent variables: Conductive environment, Maximization of instruction time, Management of learner behaviors, Effective delivery of instruction, Presentation of appropriate content, Student involvement, Assessment of student progress, Time-on-task, and Interactive time-on-task. The score for each dependent variable was calculated as follows:

Conductive environment (IIA) = (IIA1 + IIA2)/2

Maximization of instruction time (IIB) = (IIB1 + IIB2)/2

Management of learner behaviors (IIC) = (IIC1 + IIC2)/2

Effective delivery of instruction (IIIA) = (IIIA1+ IIIA2 + IIIA3 + IIIA4)/4

Presentation of appropriate content (IIIB) = (IIIB1 + IIIB2+ IIIB3)/3

Student involvement (IIIC) = (IIIC1 + IIIC2 + IIIC3 + IIIC4)/4

Assessment of student progress (IIID) = (IIID2 + IIID3)/2

Time-on-task = (Sum of Time-on-task for each time period)/times

> Time-on-task for each time period = (Number of students on Interactive and Non-interactive)/Total number of students

Interactive time-on-task = (Sum of Interactive Time-on-task for each time period)/times

> Interactive Time-on-task for each time period = (Number of students on Interactive)/Number of students on task

APPENDIX F: A TYPICAL MATH CLASS AT EACH SCHOOL

A typical math class at Xiangyang Elementary

This was a fifth grade math classroom. There were 50 students, and two students shared one desk. There was a scroll with a flag over the blackboard: "Study hard and make progress every day!" Because there was no heating system there was a stove in the classroom which took up some of the limited space but did not make the whole room warm enough. The researchers felt extremely cold even if they wore heavy jackets in the classroom. During one class Ms. Zhang, the math teacher, had to add coal to the stove as needed. Each time when she added coal the dust hovered.

10:45   Ms. Zhang entered the classroom. After the students and Ms. Zhang exchanged greetings they reviewed the content from the last class. The students put their exercise notebooks and textbooks neatly on the top left corner of their desks.

10:50   Ms. Zhang introduced the objective of the lesson for the day: investigation of the applications of direct proportion. She then put a small blackboard on the left side of the main blackboard, and she called one student to read the problem.

10:55   Ms. Zhang asked the students to analyze the problem. She praised one student for having discovered the crucial part of the problem.

11:00   Ms. Zhang called a student who did not raise his hand to go to the blackboard to do the problem. The student stood there and had no idea. Ms. Zhang provided him some hints by asking a question. The student then began solving it.

11:05   The boy next to one of the researchers was playing his pen. It seemed he was not interested in solving the problem. Ms. Zhang walked to the boy and patted him on his shoulder. She asked, "Do you need help?" The boy said that he had no idea how to do it. Ms. Zhang then helped him analyze the problem. The student at the blackboard still could not solve the problem. Ms. Zhang told him that he had to listen carefully in class and then let him return to his seat. Ms. Zhang called on another student.

11:10   This student analyzed the problem clearly. Ms. Zhang then asked, "Can you tell us the implication of this problem?" Ms. Zhang smiled to encourage him so that he could answer it in depth.

11:15   Ms. Zhang wrote a similar problem, and she called another student to go to the blackboard. A boy's chair was broken and he fell. All students stared at him. He lifted the leg with his hands. He could not do the practice because he needed to hold the chair with his hands. The student at the blackboard soon finished. Following Ms. Zhang's idea the student explained her solution step by step, and Ms. Zhang praised her.

11:20   Ms. Zhang summarized the content for this class and talked about the key to solving direct proportional problems.

11:25   Class ended. The students stood up and said goodbye to Ms. Zhang.

A typical math class at Guangming Elementary

This was a second grade math classroom. There were 55 students, with 5 columns of desks and two students sharing one desk. The space between columns was just enough for students to pass through. There was a heap of coal in the corner. The researchers noticed the strong smell of coal upon entering the classroom. Ms. Zhao the math teacher explained that

the stove did not work well that day. The students seemed to have adjusted to this environment.

8:15   After one student led the class to sing a song Ms. Zhao said, "Today we will learn new concepts of division. First we will review multiplication." She then asked the students questions.

8:20   Ms. Zhao wrote a problem on the board. The researchers concluded from her handwriting that she never had any handwriting training. She began checking how her students approached the problem. She found that one of her students did it incorrectly. She wrote the wrong method on the board and said, "Please look at the blackboard to see if the method is correct." Ms. Zhao asked one student to explain why he said no and then asked the student who had the wrong answer if he understood his mistake.

8:25   Ms. Zhao asked her students to solve another problem. She walked around to check their work. She wrote the correct answer on the blackboard and asked who got the correct answer. The student next to one of the researchers was talking to his neighbor and not listening at all. Ms. Zhao did not stop them probably because their voices were not loud enough to attract her attention. A student in the last row seemed to have finished the problem. He shouted out the answer without raising his hand. This action distracted other students from their work. They stared at him, but he appeared unconcerned.

8:30   Ms. Zhao asked students to recite the definitions repeatedly. She then asked for the meaning of division. One student gave a wrong answer, but Ms. Zhao did not notice. While Ms. Zhao helped her students to reinforce their knowledge of the topic four students in the back row were not on task and talked constantly.

8:35   Ms. Zhao asked students to do a problem in the book. When she saw that most students were finished she called some of them to answer questions. Meanwhile the students in the back row were still playing.

8:42   Ms. Zhao asked two more problems. Suddenly the students in the back rows spoke loudly. The other students looked at them angrily.

8:47   Ms. Zhao asked her students what they had learned that day and did a summary.

8:55   Class ended. The students stood up and said goodbye to Ms. Zhao. During the class Ms. Zhao ignored the students in the last row even though sometimes they interrupted the class.

A typical math class at Ziqiang Elementary

     This was a fourth grade math classroom. There were 48 students, and two students shared one desk. On the walls were posters of "Elementary School Students Regulations," "Elementary School Students Behavior Discipline," and "Banned Language for Teachers." Ms. Guo, the math teacher in her forties, welcomed the researchers.

10:15   After the students and Ms. Guo exchanged greetings they reviewed what they had learned the day before by question and answer.

10:20   Ms. Guo lectured. A girl was asked to answer a question. All the other students thought that she was wrong and wanted to stop her, but Ms. Guo told them to listen patiently.

10:25   Ms. Guo asked students for their solutions to the problem on the board. Students raised their hands eagerly. After one student was invited to give his solution a

second student was called on to give his answer because he did not listen to the first student.

10:30   Ms. Guo explained the problem step by step. The students then worked on another problem. Ms. Guo walked around to look at their solutions. One girl did not get the right answer, and Ms. Guo gave her some hints.

10:35   Ms. Guo told the students who finished to do exercise five in the book. A boy sitting next to the window knocked his head with a pen. He appeared to have difficulty understanding the topic. The teacher asked him questions to help him think about it.

10:40   Two boys had a dispute about their seats. Ms. Guo said, "Focus on the exercise now. Come to my office after class to solve your seat problem."

10:45   One boy's solution was incorrect. Ms. Guo told him "Do it again!" A boy told the teacher that there was something in his eye. Ms. Guo walked him out of the classroom and helped him to remove the object from his eye.

10:50   After Ms. Guo returned she summarized the lesson. She asked the students repeatedly if they understood the content of the class, and told those who did not understand to ask her after class.

10:55   After the bell rang the students said goodbye to Ms. Guo.

A typical math class at Shuguang Elementary

This was a fifth grade math class with 42 students. There were faded quotes by famous persons on the walls between two windows. The scroll over the blackboard read, "Study hard and make progress everyday!" In the corner was a stack of cornstalks used for igniting the stove.

8:15   The bell rang. Ms. Huang the math teacher said, "Class begins." The students responded, "Good morning, teacher!" Ms. Huang asked for the definitions of direct and inverse proportions. A girl was asked to answer but she did not give a correct answer. Ms. Huang asked her to sit down and called on another student. He recited the definitions fluently.

8:20   Ms. Huang hanged a small blackboard and asked a student to read and answer the problem. The words were small, and the students in the back could not see them clearly.

8:25   Ms. Huang wrote a problem on the blackboard and told the students to solve it. The classroom was soon filled with the noise of opening notebooks. A boy in front of one of the researchers looked secretly at his previous test papers and did not listen. A girl next to him stopped him and pointed covertly at the researcher.

8:30   Ms. Huang called on a girl to write her answer on the board. The girl wrote very small. She appeared nervous.

8:35   Ms. Huang walked down the aisle and pushed a boy's head. She asked angrily, "Is that proportion?" A girl finished, appeared bored and slept on her desk.

8:40   Ms. Huang began to talk about the problem. She reminded students to put x before the equal sign. She then wrote two other similar problems on the blackboard.

8:45   Ms. Huang led the students to analyze the problems. She asked two students to attempt them on the board and others to work on their own.

8:50   Ms. Huang told the students to check their answers with their neighbors. While she walked around she said to one student who had a wrong answer, "You must have rushed through the problem. Otherwise you cannot have made such a mistake." She

told another student, "Wrong answer. It is inverse proportion, not direct! You drive me crazy."

8:55 Ms. Huang stopped one student in front of the board whose answer was incorrect. Ms. Huang called another student to go to the board, but the bell rang before he began. Ms. Huang stated the solution briefly, and the class was over.

A typical math class at Yuren Elementary

This was a third grade math class. There were 34 students with two sharing each desk. Students rotated the columns by changing seats once per week. There were a television and a computer to the left of the blackboard. To the right of the blackboard was the hygiene corner with a trash can, a mop, and a hand wash basin.

9:55 After the bell rang students stood up and said hello to the math teacher Ms. Jiang. Students recited multiplication and division tables while watching the answers on a projector. Most answered quickly and correctly. Only one girl got the wrong answer. Ms. Jiang gave her another attempt, and she got the right answer.

10:00 Ms. Jiang showed a picture on the projector and asked students what math questions they could pose. She called not only on those who raised their hands but also those who did not. Meanwhile she praised those students who were willing to raise their hands. "Look at the progress Wang Xiaolong has made! He actively raises his hands today," she said.

10:05 After summarizing the questions posed by the students Ms. Jiang said, "Today we will learn how to divide with a one-digit divisor using oral division." The classroom was quiet. She asked, "How do you do division?" She told the students to think individually and then discuss their answers with their neighbors. Students discussed the subject energetically.

10:10 Ms. Jiang asked students to look at the problem on the projector. Most students raised their hands, and some of them stood up and shouted, "Teacher, teacher. I can answer!" Ms. Jiang said, "I want students who never raised their hands to participate in class." The researchers noticed that Ms. Jiang always used a ruler to draw the equal sign.

10:15 Ms. Jiang asked students to work on the problems on their cards. She said the first five students who obtained the correct answers would receive a red star.

10:20 Ms. Jiang checked the answers by asking the students to tell their answers one by one. She called this method "driving a train."

10:25 The students took a quiz. Ms. Jiang told one girl, "Don't rush. Do the problem slowly." Ms. Jiang reminded the students to use rulers when drawing the equal sign.

10:35 After the bell rang Ms. Jiang collected the quiz papers. The students on duty came and inspected the eye massage.

A typical math class at Xuezi Elementary

This was a third grade math class with 38 students. Two students shared each desk and a long wooden bench. A flag was above the blackboard. To the left side of the blackboard were a television and a projector. Five to six students looked curiously at the researchers when they entered the classroom. The math teacher Ms. Zhang checked students' homework. She criticized some students for their poor homework.

8:00 The class began without the bell ringing. Ms. Zhang began reviewing. She then said, "Today we will learn the division of quotients with zero with their digit."

8:05	Ms. Zhang asked students to work the problem on the blackboard. One student went to the blackboard to write the procedure, and others watched him. After he finished six students said that they did not understand the method of calculation. Ms. Zhang told them to go to her office after class.
8:10	Students were asked to work on four problems in their books. Some students spent time pulling out their exercise books because they were not well prepared. Ms. Zhang asked them to hurry. Two students still did not begin. Ms. Zhang grabbed one boy's ear and told him to hurry up.
8:15	Ms. Zhang told students to stop the first problem and begin the second problem. The researchers did not understand why Ms. Zhang did not give students the right answer to the first problem before beginning the second one.
8:20	After most students finished the second problem Ms. Zhang asked them to check their answers with their neighbors. One student was asked to write the procedure on the blackboard. Students were required to use a ruler in their calculations.
8:25	Ms. Zhang walked around and checked students' answers. She became annoyed when she found one student had made an obvious mistake. Two students were talking after they finished the problem.
8:30	After finishing the four problems students continued to work in their exercise books. This time they were doing error correction questions. Students pointed out the mistakes together with Ms. Zhang. Some students played with rulers. They disrupted the class with their noise, but Ms. Zhang did not stop those students who were misbehaving.
8:35	Ms. Zhang asked two students to go to the blackboard to change the mistakes. The bell rang before they finished. Ms. Zhang asked them to stop.
8:40	Ms. Zhang summarized, and the class ended.

A typical math class at Xingfu Elementary

Ms. Peng's fourth grade math class had 52 students. The desks were made of wood, and each desk was used by two students. The desks were arranged into three columns. Students changed seats once a week by columns. In the corner next to the blackboard was a television, and in another corner was the hygiene station.

8:50	The bell rang. The students and Ms. Peng said hello to each other. Ms. Peng took out math note cards and asked her students to answer questions orally. This was both a review and a test for the previous lesson. The students raised their hands actively, and no one made a mistake.
8:55	Ms. Peng wrote "0.45" on the blackboard and asked her students its meaning. The students practiced more in this manner. Ms. Peng then said, "Open your book to page 40. Today we will learn about the movement of decimal point."
9:00	Ms. Peng wrote "4.00, .40, .04" and let her students look from left to right. She reminded them of the changes made when moving decimal point one place to the left.
9:05	Ms. Peng asked the students to discuss decimals in groups. She then asked each group to take out their cards and discuss the patterns of moving decimal points. Ms. Peng asked the students to report their conclusions. Two students continued to discuss but immediately stopped when Ms. Peng stared at them.

9:10	Ms. Peng asked the students to do a problem in the book. She called on two students to answer the question. After they finished Ms. Peng gave them a perfect score and asked the rest of the class to raise their hands if they had the same answer. Only one boy did not raise his hand. Ms. Peng then asked what his mistakes were and helped him to find the correct answer.
9:18	Ms. Peng called another student to go to the blackboard to attempt another problem. When the boy could not solve the problem Ms. Peng provided some hints. When he still could not solve it many students asked to provide their solutions. However Ms. Peng said, "I want to give him a try." The boy finally arrived at the answer after a few more hints.
9:25	Ms. Peng told the students to summarize the problems they had completed. One girl found that the boy behind her made a mistake, and she helped him eagerly.
9:30	The students did not finish summarizing when the bell rang so the class was extended for two minutes.

A typical math class at Anda Elementary

The third grade math class had a student enrollment of 49 students. In the corner next to the blackboard there was a wooden frame with a television on top and a computer in the middle. There was a storage area for students and a hand wash basin in another corner of the classroom. The academic competition record was posted on the north wall.

8:50	The bell rang. The math teacher Ms. Liang distributed the previous day's workbooks. Students were not getting ready for class. One boy was about to drink some water, but was told by the teacher to get a drink of water at the end of the class. Ms.Liang asked students to take out their homework, their textbooks, and sit straight. Ms.Liang then said, "Class begins." The students responded, "Hello, teacher."
8:55	Ms.Liang led students to review the last lesson. She then asked the students to work a problem in their exercise books. She called two students to the blackboard to write their answers.
9:00	While the students were solving the problem Ms. Liang walked around to help individuals. When she saw that a boy twisted his body when writing Ms. Liang corrected his posture.
9:05	Ms. Liang explained the problem. She accidentally wrote 500 instead of 400 but no one pointed it out.
9:10	Ms. Liang asked a boy in the last row a question. He did know the answer. Ms. Liang said, "Who wants to help him during break?" Several students volunteered.
9:15	After Ms. Liang finished teaching one type of problem she did not move on immediately the next type of problem. Instead she quickly asked some questions to see if they truly understood. Some students still could not answer her questions. Once again Ms.Liang asked one student to help after class those students having difficulty with the lesson.
9:20	Ms. Liang asked the students to pose questions according to the information provided in a picture. One student asked, "How many bowls and cups can be bought with the money that can buy one pot?" Ms.Liang responded, "He asked a good question but ask this kind of question. We should ask the question only if we know exactly what the answer is."

9:25   One boy was not paying attention so Ms. Liang asked him a question. She then asked the class, "Is he correct?" All the other students responded, "No." Ms. Liang told a girl, "Please show him the problem that we are doing." The boy became embarrassed when he realized that he was not paying attention.

9:30   The class ended after the bell rang.

A typical math class at Changxing Elementary

Ms. Jiang's third grade math class had 41 students. Each student sat at a single desk. To the left side of the blackboard were a television and a computer. Six Chinese characters were posted on the wall: "Study hard, well behaved, and make progress!"

8:00   The bell rang. Ms. Jiang asked her students to have their books ready. After the students and Ms. Jiang exchanged greetings Ms. Jiang introduced the researchers to the class. She then reviewed the last lesson and introduced the lesson objective for that day.

8:05   Ms. Jiang asked her students to calculate 238 divided by 6 and emphasized the use of rulers. She gave her students hints about two-digit numbers divided by one digit. She asked three students to do problems on the blackboard.

8:10   The three students began to talk about their solutions. Ms. Jiang corrected one student when she gave the incorrect answer. After another student answered correctly Ms. Jiang praised her but told her to write larger next time.

8:15   Ms. Jiang asked her students to do the exercises in their books. She called two students to go to the blackboard.

8:20   Ms. Jiang told the students to sit straight. After the student who did the first problem on the board explained his solution Ms. Jiang corrected it.

8:25   When the second student in front of the board did not answer the question correctly Ms. Jiang let another student help him.

8:30   Ms. Jiang wrote two questions with their solutions on the blackboard and asked the students to find the mistakes in the procedures. Ms. Jiang praised one student who answered correctly.

8:40   Ms. Jiang asked the class, "Did you master all we have learned today?" Most students said yes. She then began to summarize the lesson and compared it to the last lesson. The bell rang, and the class ended.

A typical math class at Yongfa Elementary

This fifth grade math class had an enrollment of 45 students. The teacher's desk was on the left side of the blackboard. On the desk were a broken clock, a trophy, a set square, and a half circle. One student sat directly in front of her desk, perhaps because he had misbehaved. On the right wall of the blackboard were posted student's discipline policies and behavior requirements.

8:00   After the students and Ms. Yang exchanged greetings Ms. Yang asked them to draw a rectangular parallelepiped on a piece of paper and cut it to fold into a solid rectangular parallelepiped. One student did not bring scissors so he watched others.

8:05   Ms. Yang saw most students had finished cutting. She asked them to label the front, back, left, right, upper, and lower faces. Meanwhile Ms. Yang noticed the student who did not have scissors and lent him a pair. Ms. Yang asked students who finished labeling to discuss with their neighbors about the differences in their labels.

8:10	Ms. Yang asked several students to give their answers, but she did not comment on their responses.
8:15	Ms. Yang wrote a problem on the board. She asked students to read the problem silently and solve it. She walked around, checking students' answers and reminding them to write the units and to sit straight.
8:20	Ms. Yang asked students to sit straight after they finished. The students with the correct answer were asked to explain how they found them. Most of the students had the right answer, but three students did not know how to do the problem. Ms. Yang did not wait for them but instead asked the class to do a problem in their books. One student was asked to go to the blackboard.
8:25	Ms. Yang watched the students working the problem. Three students were looking around after they finished the problem. The boy at the blackboard did not understand how to do the problem, and Ms. Yang helped him.
8:30	When half of the class had finished Ms. Yang said, "There are two solutions. Now think about another solution." Two girls were chatting. It appeared that they already knew the two solutions.
8:35	Ms. Yang asked students to discuss the formula for the surface area of a rectangular parallelepiped with neighbors. Two students played their pens and appeared to be uninterested in the discussion.
8:40	Ms. Yang asked students to report their conclusions. The bell rang, but Ms. Yang ignored it. She assigned students another problem. After Ms. Yang checked their answers she began summarizing the content studied. The class was extended for 3 minutes.

A typical math class at Jixing Elementary

This was a fifth grade math class with 36 students. A map of China and a map of the world were on the wall with windows, and the "Class Stars Winners" were posted on the opposite wall. A bulletin board was in the back of the class with the story of the hero Lei Feng along with some recent announcements.

8:55	The bell rang. A girl on the platform led the students in reciting math definitions. When they finished the math teacher Ms. Wang said, "Good. Most of you remembered well, but some still need to improve."
9:00	Ms. Wang said, "Class begins." The students stood up and said, "Hello, Ms. Wang." Ms. Wang replied, "Hello, students! Please be seated." Ms. Wang began teaching. "Today we will learn how to calculate the volumes of cube and rectangular parallelepiped." She asked students to open their books to page 34 and read the problem carefully.
9:05	Ms. Wang lined up four cubes on the board to show students how to calculate the volume of a rectangular parallelepiped. The students watched carefully and responded.
9:10	Ms. Wang concluded, "From these two experiments we can deduce that the volume formula for rectangular parallelepiped is…" She asked her students to memorize the formula by reciting silently. She then told the students to open their exercise books and write down the formulas without looking at the blackboard. Ms. Wang asked some students to repeat the formula with their eyes closed. Ms. Wang praised all the students after they recited the formula fluently.

9:18	Ms. Wang asked the students to use the formula to solve a problem on the blackboard. Two students asked her questions, and she explained patiently. She reminded the students to lift their heads while writing in order to protect their eyes. Ms. Wang called a boy to write his answer on the blackboard. After he finished Ms. Wang praised him and said, "I praise him for two reasons. First, he is not confused about units. Second, I did not teach him the abbreviation for cubic centimeter, but he knows it. I guess he deduced from centimeter and square centimeter."
9:25	Ms. Wang asked the students to do an exercise in the book. She walked around to observe the students and praised most of her students for their neat handwriting.
9:30	One girl was asked to answer the question. Although she gave a correct answer some students had different opinions. Ms. Wang wrote all the different solutions on the board and led the students to analyze the problem. The whole class entered into a heated discussion.
9:35	Ms. Wang concluded the lesson. The bell rang. Ms. Wang said, "Class over." The students responded, "Ms. Wang, thank you for your hard work!"

A typical math class at Shengli Elementary

This was a third grade math class with 35 students. A platform was in front of the classroom. On the left side of the platform were a television, projector, and water cooler. On the right side of the platform was the hygiene corner, which contained a washbasin, the trashcan, and cleaning supplies. On the two sides of the back blackboard were posters stating, "Elementary School Students' Daily Behavior Disciplines," and "Secondary and Elementary Students rules."

8:50	The bell rang. After hearing the bell Ms. Li the math teacher, who was also the Banzhuren of the class, told the researchers that she needed to lead the line and walked out in a hurry. (The students in the school had to line up if they wanted to use the restroom during break. When they came back they should line up to enter the classroom. The Banzhuren was responsible for leading the line). At 8:53 the students gradually entered the classroom.
8:55	Ms. Li clapped three times to stop students from talking. Ms. Li and her students exchanged greetings, but Ms. Li was dissatisfied with the response because they did not all speak simultaneously. She required her students to do the greeting again. They then began to review the last lesson.
9:00	Ms. Li said, "Now we will use the knowledge we reviewed to learn new content." Three students in the last row were talking. Ms. Li called two of them to read the student rules posted on the back blackboard and told them to listen.
9:05	Ms. Li asked her students questions. She said, "For this problem I will call the one who sits properly." Everyone adjusted his/her posture. When one girl answered the question she was interrupted by another student, but he was criticized by the teacher.
9:10	Ms. Li continued to ask students to answer questions, but the researchers found that the teacher always called on the same five or six students. One boy had his head on the desk and was ignoring the lecture.
9:15	Ms. Li asked the students to solve a problem with neighbors. One girl told the teacher that her group would not allow her to be in the group. The teacher criticized

her neighbors without asking for the reason. Several students talked and did not join the discussion.

9:21   Ms. Li clapped three times, after which the classroom became quiet. After one student was asked to report their group discussion result one girl said, "Teacher, there is another solution." Ms. Li ignored her because another group was eager to report its result.

9:26   Ms. Li began to discuss an example. She then asked the students to do a similar exercise. Ms. Li called on a boy who was not on task and did not know the answer.. Ms. Li punished him by making him stand.

9:30   The bell rang. After the teacher summarized the lesson the students rushed out of the classroom.

APPENDIX G: GLOSSARY OF CHINESE TERMS

Banzhuren 班主任—a teacher who is in charge of a class' management. As a director of a class, a Banzhuren is responsible for the students' studies, behaviors, ethics education, health and safety. He/she is also responsible for contacting parents and coordinating with other teachers who teach the class. Most often, a Banzhuren teaches the class one or two subjects.

Daduibu 大队部—a branch organization of the Communist Party in elementary schools

Di Qu 地区—autonomous prefecture

Di Fang Fu Ze Fen Ji Guan Li 地方负责分级管理—a multilevel administration of basic education with local authorities assuming the main responsibility.

Duo Qu Dao 多渠道—multiple channels

Gao Kao 高考—the college entrance examination

MinbanTeacher 民办教师—a substitute teacher in rural schools. These teachers did not hold a professional certificate, and most of them graduated from middle or high school.

San Tong 三通—three connections, meaning that water, electricity, and road linkups to every school must be guaranteed.

Sheng 省—province

Shi 市—city

Wu Ai 五爱—the Five Loves: love for country, love for people, love for work, love for science and love for socialism.

Xian 县—county

Xiang Zhen 乡镇—town and township

Xiao Zhang Fu Ze Zhi 校长负责制—a principal being in charge of the school

Zaozixi 早自习—a kind of academic warm-up in the morning. It is usually organized by one teacher who teaches math or Chinese language for more exercises on that subject. The teacher might lead the students to review the old lesson or preview the new lesson. Sometimes a teacher makes a Zaozixi an extra formal class.

Zhi Xia Shi 直辖市—municipality directly under the Central Government

Zhong Kao 中考— the high school entrance examination

Zi Zhi Qu 自治区—autonomous region

Yi Wu Liang You 一无两有—one "have-not" and two "haves." One "have-not" means that
no school should have dangerous school buildings or facilities. Two "haves" means
that every school must have classroom buildings and that every student must have a
desk and stool in the classroom.

VITA

Shujie Liu was born in Anda, Helongjiang Province, the People's Republic of China (PRC). After completing elementary school in her neighborhood, she was selected by excellent test scores to the best middle and then high school in her hometown. With a very good test score on the national university uniform examination, she attended the Northeast Normal University (NENU) at Changchun, Jilin Province. After receiving her bachelor's degree in English literature in 1988, she became a lecturer at the College of Education, NENU. Shujie pursued her master's degree in educational administration at NENU in 1995 and completed this in 1999. During this period, she went to the Sendai University in Japan as a visiting scholar. Shujie was promoted to associate professor in 2000.

In 2002, Shujie left an established position at a Chinese university and came to Louisiana State University (LSU) to pursue her doctorate, majoring in the educational research methodology program. Shujie was very active during her doctoral program. She has been a Graduate Assistant for four years, both conducting research and lecturing. She has published and/or given professional presentations with four LSU professors during her graduate studies. While working on her doctoral studies, Shujie acquired a second master's degree in educational research methodology at LSU in 2004. The degree of Doctor of Philosophy will be awarded to Shujie Liu at the December 2006 commencement ceremony.