

THE DEVELOPMENT OF BACKBONE TEACHERS AS TEACHER LEADERS IN
MAINLAND CHINA

by

FEIYE WANG

(Under the Direction of Sally J. Zepeda)

ABSTRACT

The goal of this research was to explore the development of teacher leadership in two public middle schools in Mainland China. The practices and impact of current, formally appointed teacher leaders in Mainland China, called Backbone Teachers, were closely examined as the purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The 10 participants included 4 Backbone Teachers, 4 non-Backbone Teachers, and 2 principals respectively from 2 middle schools in the same district in Mainland China. Qualitative case study methods were used and included interviews and observations of the participants using shadowing techniques to examine the perspectives of the three groups of actors—Backbone Teachers, non-Backbone Teachers, and principals—involved in the school. The constant comparative method was used to make within-case analysis and cross-case analysis.

The findings of the study revealed that the Backbone Teachers were role models and played a leading role in the teacher groups within these two schools. Backbone Teachers had positive, negative, and other instances of impact on themselves, their peers, their students, and their schools. In general, the overall sentiment was that the instances of positive impact

outweighed the negative impact experienced by the Backbone Teachers. Additionally, to develop as Backbone Teachers, personal qualifications, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture were significant. However, the overloaded work with limited time, work stress and interpersonal skills, and the lack of positive school culture might impede the development of Backbone Teachers.

The findings of the study also revealed that there was no appropriate translation for the term "teacher leader" and the Backbone Teachers' awareness of being teacher leaders was not always apparent to them. The findings suggest that the Backbone Teachers in this case study exerted their leadership, which was consistent with the teacher leaders' practices identified in the literature in the United States.

INDEX WORDS: Backbone Teacher, Teacher leader, Teacher leadership, Mainland China

THE DEVELOPMENT OF BACKBONE TEACHERS AS TEACHER LEADERS IN
MAINLAND CHINA

by

FEIYE WANG

B.A., Beijing Language and Culture University, China, 2005

M.A., Beijing Normal University, China, 2009

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial
Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2013

© 2013

Feiye Wang

All Rights Reserved

THE DEVELOPMENT OF BACKBONE TEACHERS AS TEACHER LEADERS IN
MAINLAND CHINA

by

FEIYE WANG

Major Professor: Sally J. Zepeda
Committee: John P. Dayton
Peg Graham

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
August 2013

DEDICATION

This dissertation is dedicated to my family. Without their love and support, I would not be where I am today. To Weihua Wang, my father, who has always been my backup support whenever necessary. To Fang Shu, my mother, who has always kept enough patience for my “endless” complaints and always provided me encouragement to carry me through this incredible journey.

Mom and Dad, thank you for spoiling me with unconditional love and always being there when I needed you. I wish I can always make you proud of me, and I dearly love you.

ACKNOWLEDGEMENTS

Time flies. Four years ago, writing a dissertation and getting a degree were still distant goals, far away from my life. Now I am arriving at the end of the road to the completion of my Ph.D. dissertation. Along this incredible journey, many people provided their support for me and motivated me to get closer to my goals. Here, I thank each and every one who had a role in my accomplishment.

To my parents, Weihu Wang and Fang Shu, who provided me their never-ending love. Thank you for providing me constant encouragement and strong support to complete this degree. You always had faith in me, and you were always there for me any time I needed anything. I love you, and I hope I have made you proud.

To my dear boyfriend, Lei Wu, who has been my pillar of support throughout the journey. Lei, thank you for being with me every step of the way. You are an inspiration for me, and I am so lucky to have you with me to sail through the journey.

To my major professor, Dr. Sally Zepeda, words cannot express how much I am grateful to you. Thank you for everything you have done for me. You are an incredible mentor not only in providing me guidance and support in my academic work, but also in assisting me pursuing my career in higher education. It is your constant encouragement and appropriate nudges that have enabled me to go through this journey. I will never forget your tireless effort in repeatedly reviewing my work, providing advice, editing words, and polishing the writing. I am impressed by your strong work ethic and dedication to my work. You have taught me much more than the

research. I will forever be appreciative for all the support you have given to me for my success. You are the best mentor, and you are very kind, Dr. Zepeda.

To my committee members, Dr. John Dayton and Dr. Peg Graham, I appreciate your time and contributions to make this product stronger. You have both offered me your useful guidance and feedback. Peg, you are also my good friend in addition to being a committee member. You provided me with a graduate assistantship when I faced a financial crisis. You were always there supporting me both in my academic life and my personal life. I am fortunate to have you in my life. Thank you for always caring about me.

To my dear friends, Stephanie Short, thanks for doing me a big favor. Stephanie, you spent a great deal of time proofreading my papers since my comprehensive exams. I know it is not easy to polish an international students' paper. I am glad to have met you in that methodology class, and I am lucky to have you as my friend.

To my best friend, Jia Liang, who always knows what I needed exactly at the right time. As two international students from the same motherland, we have made friends with each other since the first day of our Ph.D. study. We have shared our experiences with each other, comforted each other, and encouraged each other for the past four years. Jia, thanks for staying with me along the entire journey.

And finally, to the participants who shared their time and stories with me. Thank you for your willingness to participate in my study. I am grateful to you all for taking time out of your busy schedules and bearing inconvenience I might have brought about during the research time. Your experiences provided rich data for my research. Thank you.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	v
LIST OF TABLES	x
CHAPTER	
1 INTRODUCTION	1
Background of the Study	3
Statement of the Problem.....	10
Purpose of the Study	12
Research Questions	13
Conceptual Framework.....	14
Overview of the Methods.....	15
Significance of the Study	17
Assumptions.....	18
Definition of Terms.....	19
Limitations of the Study.....	20
Organization of the Dissertation	20
2 REVIEW OF THE RELATED LITERATURE	22
Introduction.....	22
Definitions of Teacher Leadership.....	23
Roles of Teacher Leaders.....	30

Teacher Leader Status Attainment.....	34
Historical and Cultural Impediments	40
Impact of Teacher Leadership	45
Chapter Summary	58
3 RESEARCH DESIGN AND METHODOGOLGY	60
Research Questions.....	61
Theoretical Framework.....	61
Research Design and Rationale	63
Data Sources	66
Data Collection	74
Data Analysis	83
Trustworthiness.....	86
Limitations	88
4 CONTEXT OF THE STUDY.....	90
Introduction.....	90
Context of the Study	91
Profile of the School District	94
School Profiles	95
Participant Profiles.....	101
Profiles of the Principals.....	104
Profiles of the Backbone Teachers	106
Profiles of the Non-Backbone Teachers	110
5 INDIVIDUAL CASE FINDINGS.....	114

Introduction.....	114
Roles of Backbone Teachers.....	115
Conditions for Developing Backbone Teachers	137
Impact of Developing Backbone Teachers.....	157
Case Summary	184
6 CROSS CASE FINDINGS.....	191
Introduction.....	191
Roles of Backbone Teachers.....	192
Conditions for Developing Backbone Teachers	197
Impact of Developing Backbone Teachers.....	203
Analysis of the Findings	212
7 SUMMARY, DISCUSSION, AND IMPLICATIONS	219
Summary of the Research Design.....	219
Discussion of the Findings.....	221
Unexpected Findings	234
Implications.....	237
Concluding Thoughts.....	242
REFERENCES	244
APPENDICES	
A PARTICIPANT INTERVIEW QUESTION GUIDES.....	260
B PARTICIPANT CONSENT FORMS.....	264
C PARTICIPANT DEMOGRAPHIC SHEETS	267
D OBSERVATION LOG.....	269

LIST OF TABLES

	Page
Table 2.1: Evolution of Teacher Leadership from 1980 to the Present	25
Table 2.2: Definitions of Teacher Leadership in the United States and in Mainland China	29
Table 2.3: Roles of Teacher Leaders in the United States and in Mainland China	33
Table 2.4: Personal Qualifications for Attaining Teacher Leader Status in the United States and in Mainland China.....	36
Table 2.5: Context Conditions for Attaining Teacher Leader Status in the U.S. and in Mainland China	40
Table 2.6: Teacher Leadership Impact on Teacher Leaders in the U.S. and in Mainland China ..	54
Table 3.1: Sample Interview Questions Related to the Overall Research Questions	65
Table 3.2: School Data Comparison during the 2011-2012 School Year.....	68
Table 3.3: Student Achievement Data Comparison during the 2011-2012 School Year	70
Table 3.4: Principal Participant Profiles	72
Table 3.5: Teacher Participant Profiles in KM Middle School	73
Table 3.6: Teacher Participant Profiles in SY Middle School.....	73
Table 3.7: Data Collection Methods	75
Table 3.8: Key Questions from Interview Guide Directly Aligned with Research Questions	76
Table 3.9: Observations in KM Middle School	78
Table 3.10: Observations in SY Middle School	79
Table 3.11: The Course of Shadowing the Backbone Teachers	81

Table 3.12: Context Artifacts and Documents for the Study.....	82
Table 3.13: Code Mapping: Three Iterations of Analysis.....	85
Table 4.1: School Data Comparison during the 2011-2012 School Year.....	94
Table 4.2: Key School Data Comparison for 2011-2012 School Year.....	95
Table 4.3: Data Comparison between KM Middle School and SY Middle School	101
Table 4.4: Principal Participant Profiles	102
Table 4.5: Teacher Participant Profiles.....	103
Table 5.1: Categories and Sub-themes for Roles of Backbone Teachers	115
Table 5.2: Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Backbone Teacher Participants	137
Table 5.3: Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Non-Backbone Teacher Participants.....	138
Table 5.4: Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Principal Participants.....	138
Table 5.5: Categories and Sub-themes for Impact of Developing Backbone Teachers for the Backbone Teacher Participants	158
Table 5.6: Categories and Sub-themes for Impact of Developing Backbone Teachers for the Non-Backbone Teacher Participants	158
Table 5.7: Categories and Sub-themes for Impact of Developing Backbone Teachers for the Principal Participants.....	159
Table 6.1: Participants’ Perspectives on the Practical Roles of Backbone Teachers	195
Table 6.2: Participants’ Perspectives on the Espoused Roles of Backbone Teachers	197

Table 6.3: Participants’ Perspectives on the Facilitating Conditions for Developing Backbone Teachers.....	200
Table 6.4: Participants’ Perspectives on the Challenging Conditions for Developing Backbone Teachers.....	202
Table 6.5: Participants’ Perspectives on the Impact of Developing Backbone Teachers on Backbone Teachers	207
Table 6.6: Participants’ Perspectives on the Impact of Developing Backbone Teachers on Peers	209
Table 6.7: Participants’ Perspectives on the Impact of Developing Backbone Teachers on Students.....	210
Table 6.8: Participants’ Perspectives on the Impact of Developing Backbone Teachers on the School.....	212

CHAPTER 1

INTRODUCTION

The notion that students could be considered as the human resources for a nation's competitiveness in the global labor market has been broadly accepted (Farrell, 2007). Since then, interest in how to ensure student learning and to improve schools has come under heightened scrutiny both in the United States and in China (Elmore, 2004; Wong & Nicotera, 2007; Zhang, 2008). Beyond principals, assistant principals, and headmasters, the notion of teacher leadership is a broadly accepted way to build school capacity, to improve the instructional program, and to provide support to teachers in and out of the classroom (Harris, 2008; Spillane, Halverson, & Diamond, 2001, 2004; Zepeda, 2011; Zepeda, Mayers, & Benson, 2003). For much of the last quarter century, educators, policy-makers, and the general citizenry have been seeking to understand the work and role of teacher leaders in both the United States and in Mainland China (Elmore, 2004; Zhang, 2008).

Research in the United States over the past two decades has consistently underscored leadership as a critical key to school improvement (Hart, 1995; Wong & Nicotera, 2007). However, scholars (e.g., Lambert, 2002; York-Barr & Duke, 2004) indicated that the principal as the sole leader is no longer an effective model. And the central role teacher leadership plays in school improvement efforts has been gradually identified as a way to extend the leadership of the principal (Harris & Muijs, 2003; Murphy, 2005). While the teacher leadership construct had not broadly been accepted in American schools until the 1990s (Katzenmeyer & Moller, 1996),

during the last two decades, “teacher leadership has become an established feature of educational reform in the United States” (Smylie, Conley, & Marks, 2002, p. 162).

Currently, teacher leadership in the United States is an established practice as evidenced by “the vast growth of the numbers of instructional leadership positions, the inclusion of teacher leadership in standards for teachers, collaborative work across states on licensure for teacher leaders, and the proliferation of teacher leadership literature” (Katzenmeyer & Moller, 2009, p. 4). Although there is a commonly held belief in the United States that teacher leadership can have a wide range of impact, less is known about its impact or the implications on the teaching profession, student achievement, and school improvement (Harris, 2005; York-Barr & Duke, 2004). In addition, it has not been easy to promote the development of teacher leadership because it has been reported that assuming teacher leadership roles and responsibilities alters some traditional norms and beliefs that American teachers hold within the cultures in which they work (Murphy, 2005).

Compared to the abundance of current American literature related to teacher leadership, research on the development of teacher leadership in China has just recently emerged since 2007, when Hong Kong scholars Xu and Li (2005) first introduced this concept. According to the definitions and descriptions of teacher leaders in the American literature, a unique teacher group in Mainland China, the Backbone Teachers, are broadly considered as the teacher leaders with formal titles by scholars in Hong Kong and in Mainland China (e.g., Chen & Lu, 2010; Jin, 2007).

In China, there is an expression, “stones from other hills may serve to polish the jade of this one,” that is worth examining for this study by using the lens of teacher leadership as explicated in the literature in the United States to examine Chinese Backbone Teachers.

Considering the different cultures and norms teachers embrace in the United States and in Mainland China, this exploration about Backbone Teachers in China offered an international insight on the development and impact of teacher leaders.

Such a study begs many questions to consider. How did Chinese Backbone Teachers develop? Did they consider themselves as teacher leaders? How did they exert their leadership? Bound by different norms and cultures, did they rid themselves of challenging conditions and impediments which their American colleagues typically face? What other challenges did Backbone Teachers face, which American teacher leaders would never experience? Did they have impact on students, schools, and teacher professional development under completely different circumstances? These questions helped, in part, to frame the present study.

Background of the Study

The concept of teacher leadership is an emerging idea, which has taken root in educational reform initiatives in the United States since the 1980s (Katzenmeyer & Moller, 1996, 2001, 2009; Murphy, 2005). Embedded in the different waves of educational reforms, the three overlapping phases of the evolution of teacher leadership in the United States has been identified and discussed by scholars (e.g., Katzenmeyer & Moller, 2009; Little, 2003; Murphy, 2005; Silva, Gimbert, & Nolan, 2000; Zepeda et al., 2003).

There have been phases in which teacher leadership has evolved over the years. In the 1980s, teacher leadership in its first phase was mainly shaped by policy related to performance-based compensation, especially by the career ladder initiative. In 1983, the first wave of American educational reform was launched by the release of the National Commission on Excellence in Education's report, *A Nation at Risk*. This report pointed out that poor student outcome measures were attributable to the poor quality of workers and to the inadequacy of their

tools. Therefore, the reform called for state mandated, top-down initiatives of control to improve educational quality, and during that time, the public's attention turned to upgrading the quality of teaching through tighter controls and regulations.

Soon, a wide variety of scholars and practitioners argued that the early reform agenda was inadequate (e.g., Darling-Hammond & Berry, 1988; Chubb, 1988; Cuban, 1984). Concerns were voiced that this centralized reform ignored the teacher's role (Maeroff, 1988), weakened teacher professionalism (Frost & Durrant, 2003), and constrained sustained school reform (Crowther, Kaagan, Ferguson, & Hann, 2002). New approaches to school improvement began to surface in the mid-1980s.

In 1986, a series of reports, issued by the Carnegie Forum on Education and the Economy, the National Governors' Association, and the Holmes Group, initiated the second wave of American educational reform. All those reports placed emphasis on improving the status and power of teachers and professionalizing the occupation of teaching (Smylie & Denny, 1990). Teacher leadership spawned from recommendations in those reports. This period witnessed the emergence of initiatives, such as career ladders, differentiated teaching, mentor teaching plans, and performance-based compensation systems, which led to the development of teacher leadership roles in schools.

A major initiative, the National Board for Professional Teaching Standards (NBPTS), was created in 1987 in response to the recommendation of the Carnegie Forum report aimed at increasing the professionalization of teaching. The purpose of the NBPTS can be summarized in three strands: "increased professionalization of teaching through development of standards and assessments, identification and certification of accomplished and effective teachers, and promotion of teacher leadership within schools and in large policy contexts" (Cannata, McCrory,

Skykes, Anagnostopoulos, & Frank, 2010, p. 464). The federal, state, and district sources have invested heavily in NBPTS which resulted in tremendous growth of National Board Certified Teachers (NBCTs), to more than 100,000 today (NBPTS, n.d., para. 1). Teacher leaders assuming formally assigned positions or titles, just like NBCTs, were expected to have expertise in their subject matter to support mainly new teachers and to work on school improvement initiatives related to the instructional program (Little, 1990).

During the 1990s, in the second phase, whole-school reform initiatives produced new definitions of teacher leadership, featuring shared decision making and the engagement of teachers in more collective practice (Wasley, 1991). Teachers became involved in the governance of schools, and widespread collaboration flourished marking the emergence of learning communities. New positions, such as program facilitator, curriculum developer, and staff development specialist, were created. State-sponsored initiatives under the whole-school reform put forward new professional roles, titles, and responsibilities for teachers (Little, 2003).

By the late 1990s, in the third phase, standards-based reform was mandated, and policies and laws focusing on high stakes accountability were enacted and implemented. In this period, new instructional leadership roles were created in response to external accountability pressures (Katzenmeyer & Moller, 2009). Pressing into the 1990s and including the 21st Century, the escalated pressures and demands on teachers have somewhat impeded teacher professionalism closely linked to the development of teacher leadership (Little, 2003; Schulz, 2008).

Historical Background of the Backbone Teacher

As Samoff (2007) stated, “societal interactions have been involved both borrowing and conquest” (p. 48). The concept of teacher leadership was a borrowing of an idea, which was not introduced into China until the mid-2000s. In 2005, two Hong Kong scholars, Xu and Li were

the first to introduce the Western concept of teacher leadership with an emphasis on teacher empowerment, a collaborative community, and professional development for teachers. Later, studies on developing teacher leaders and promoting teacher leadership were gradually drawing attention from educational scholars in academic fields in Mainland China and Hong Kong. In an academic study, the term teacher leadership was rarely used, let alone in policies and laws in Mainland China. Presently, one group of teachers, the Backbone Teachers, is broadly considered teacher leaders in Mainland China (Chen & Lu, 2010; Jin, 2007; Li & Lu, 2007). The historical background of Backbone Teachers in Mainland China is important to examine in light of the present study examining Backbone Teachers in Mainland China.

The proposal of developing Backbone Teachers was documented in 1962 in official papers of the Minister of Education of the People's Republic of China (condensed to Minister of Education in the following sections) and was entitled *The Decision to Develop a Group of Key Elementary and Middle Schools* (Ministry of Education, 2002b). Considering the lack of sufficient educational resources in Mainland China, the Chinese government decided to concentrate its limited resources on a preponderant group of public K-12 schools to develop key schools. In that proposal, the development of Backbone Teachers ran parallel to the development of key public K-12 schools as a solution to the problem of not having great teachers in classrooms and a lack of sufficient resources for training teachers and then providing them with professional development to be Backbone Teachers. To some extent, in 1962, the conditions within the structures of schools was not conducive to the emergence of Backbone Teachers, and due to political and economic issues, the proposal for Backbone Teachers was laid aside for several years.

Until 1990, the Ministry of Education proposed to implement training programs for all teachers with priority on Backbone Teachers, which was amplified in the official document entitled *The Meeting Record of Continuing Education for Elementary and Middle School Teachers All Over the Country* (Minister of Education, 1991). Since then, Backbone Teachers in Mainland China began to reignite the public's attention. By the late 1990s, many countries were setting up educational plans to improve national competitiveness through educational reform, among which teacher quality gained its currency (Li, 2006). Under the influence of this educational reform movement, in January of 1999, the State Council of the People's Republic of China approved *The Action Plan for Educational Revitalization Facing the 21st Century* proposed by the Minister of Education (Minister of Education, 2002c).

In this action plan, the proposal for nurturing teachers in a new century, the Minister of Education (1998) delineated a blueprint for developing new teacher groups in the new millennium. It was stipulated that to build a strong Backbone Teacher group, 1,000,000 Backbone Teachers in total would be selected and trained across Mainland China, of which 100,000 would be selected and trained by the Department of Education at the province level, 10,000 would be directly trained at the national level by the Minister of Education during the years spanning from 1999 through 2000, and the rest of the Backbone Teachers would be selected and trained at the local level.

The training, content, and management of schools were given specific guidelines. A group of educational colleges in specific universities at different levels were assigned to train the various ranks of Backbone Teachers, and school-based training programs were encouraged and would be supervised by higher education administrators. Trained Backbone Teachers would be expected to be exemplary examples, lead peers, and disseminate instructional improvement

techniques through various activities, such as school-based reform experiments, itinerant teaching, research and training, site-visitation, lesson demonstration, and so on.

In 2001, *The Decision on the Reform and Development of Basic Education*, approved by the State Council of the People's Republic of China, launched a basic education reform aimed at a quality-oriented education instead of a traditional test-oriented education (Minister of Education, 2002a). In the same year, a new round of curriculum reforms, with the same theme of promoting quality-oriented education, formally began in Mainland China. The curriculum guidelines called for an increase in formal in-service education for teachers to serve new student learning demands in quality-oriented education (Minister of Education, 2001). Based on the decision and the curriculum guidelines, the Minister of Education promulgated the selection and evaluation criteria for training Backbone Teachers in elementary and middle schools at the national level. The various departments of education at different levels, in succession, designed criteria for selecting and evaluating Backbone Teachers based on individual regions and the central government's tenets as outlined in higher authorities' documents.

Currently, the *National Education Reform and Development of Long-term Planning Programs* (2010-2020) was released in 2010 (Xinhua News Agency, 2010). Equity and professionalization are the two areas of focus in this educational plan. Developing Backbone Teachers and principals through in-service training, academic exchanges, and projects funded by the government would be continually implemented to form an effective and efficient group of instructional leaders. Besides Backbone Teachers, staff training would be implemented for each teacher every five years.

The lifelong education system and professionalization of teachers and principals has been largely promoted in this plan, in which the standards and certification requirements for entry and preparation are underscored as keys to professionalism. Teachers and principals are encouraged to produce new educational ideas, models, and instructional approaches to form individualized teaching styles appropriate for the site in which the Backbone Teachers work. The teachers making enormous contributions to educational causes would be actively advocated and awarded with honorable titles. In short, instructional leadership and lifelong education for teachers and principal professional development are priorities of educational policies over the next 10 years in Mainland China.

Backbone Teachers and Teacher Leadership

Based on history, it is clear that Backbone Teachers were being promoted by the latter part of the 1990s, and the upsurge in new curriculum reform, with focus on quality education and human comprehensive development, further heightened the crucial role of Backbone Teachers. Around this curriculum reform, some researchers called on the school to give Backbone Teachers more power to develop new instructional strategies for new curriculum (Huang & Zhu, 2005). Ding (2004) proposed the significance of collegiality for Backbone Teachers dealing with new curriculum reform. Li (2005) studied the model of collaborative community for Backbone Teachers and pointed out collaboration as one approach to teacher development. Although no one officially used the word “teacher leadership” or adopted the U.S. teacher leadership model as theoretical framework to guide their studies, those studies conducted in Mainland China and Hong Kong more or less mentioned part of the modern concept of teacher leadership as described in the Western literature (Ding, 2004; Huang & Zhu, 2005; Li, 2005).

After the Hong Kong scholars (Xu & Li, 2005) introduced the concept of teacher leadership, according to the Backbone Teacher's definition and function, Backbone Teachers were broadly considered as the teacher leaders with formal titles by educational scholars in Hong Kong and Mainland China (e.g., Chen & Lu, 2010; Jin, 2007; Leslie & Chen, 2007). Scholars tried to explore the impact of Backbone Teachers and made policy recommendations for Backbone Teachers from the perspective of teacher leadership (Leslie & Chen, 2008). As a matter of fact, developing Backbone Teacher has been proven as having a positive impact on collaborative instructional leadership, while the hierarchical structure has had negative impact (Chen & Lu, 2010; Jin, 2007).

In summary, although the advancement of Backbone Teachers was a Band-Aid approach to the problem of limited educational resources in the 1960s, the repeated proposal of developing Backbone Teachers into the 21st Century was one progression for basic educational reform and development as teachers were believed to be the foundation of the development of education. This new type of teacher group, the Backbone Teachers, developed by the government, was expected to lead all educators to promote quality education in Mainland China.

Statement of the Problem

There is a large body of literature surrounding the topic of teacher leadership in the United States. However, there has never been a consensus on a shared definition for this unique form of leadership in schools (Katzenmeyer & Moller, 1996, 2001, 2009; Murphy, 2005; Wasley, 1991; York-Barr & Duke, 2004). As a consequence, there is an “expansive territory encompassed under the umbrella term teacher leadership” (York-Barr & Duke, 2004, p. 260) and “ambiguity surrounding the term in the literature” (Crowther et al., 2002, p. 5). For example, teacher leaders are given different titles which mean different things in different settings

(Mangin & Stoelinga, 2008), and “confusions and expectations of teacher leaders abound” (Katzenmeyer & Moller, 2001, pp. 4-5).

For the past two decades, theories and ideas about dimensions of teacher leadership practice, teacher leader characteristics, and conditions that promote and challenge teacher leadership in the United States have been revealed and constructed in numerous studies in the Western literature; however, empirical studies to indicate how teacher leadership develops and its impact were still insufficient (York-Barr & Duke, 2004). Theoretically, teacher leadership is asserted to “make a major difference to the personal and interpersonal capacities of themselves and their colleagues, to pupils’ learning and to the organizational structures and cultures of their schools” (Frost & Durrant, 2003, p.4). However, operationally, there is only thin empirical evidence to support this assertion, and Harris (2005) summarized, “the available empirical evidence is mixed and includes some evidence of the negative effects of teacher leadership, at least in the form of associated opportunity costs” (p, 207).

However, Western literature reveals a number of barriers and facilitating factors to teacher leadership in the United States (York-Barr & Duke, 2004). But as Harris (2005) indicated we still did not know the way in which teachers positively influenced instructional and organizational development, how teacher leaders were best prepared for their role, which models of teacher development were the most effective in the generation of teacher leadership, and what combination of teacher leadership offered the most powerful platforms for organizational change.

The Backbone Teacher model in Mainland China could be considered as an alternative way to develop teacher leadership. The goal of developing Backbone Teachers is in pursuit of the common development of the teaching profession and school improvement, which are akin to the purposes and intents of teacher leadership in the Western world. Influenced by a complete

different culture and history, the conditions which might be barriers or facilitating factors to teacher leadership might be completely different in the United States and in Mainland China.

Purpose of the Study

The goal of this research was to explore the development of teacher leadership in two public middle schools in Mainland China. The practices and impact of current, formally appointed teacher leaders in Mainland China, called Backbone Teachers, were closely examined in relation to professional development and school improvement. The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of the Backbone Teachers, non-Backbone Teachers, and principals, and the interactions among these three groups were described and analyzed to understand better the role and impact of Backbone Teachers as teacher leaders in public middle schools in Mainland China.

The concept and practice of teacher leadership has gained momentum over the past two decades in the United States (York-Barr & Duke, 2004). The central role teacher leadership plays in school improvement has been identified (Murphy, 2005). Although there is a commonly held belief that teacher leadership can have a wide range of impact, less is known about how teacher leadership is developed and about its impact or implications on the teaching profession or efficacy (York-Barr & Duke, 2004). More empirical research is needed to clarify these issues.

In addition, compared to a great deal of current Western literature related to teacher leadership, research on the development of teacher leadership in Mainland China has just recently emerged since 2005, when Hong Kong scholars first introduced this American concept (Xu & Li, 2005). According to the definition and roles of teacher leaders, a unique teacher group in Mainland China, the Backbone Teachers, are considered elite teachers due to their

professional expertise, morality, and ability to conduct research. The Backbone Teachers are considered elite because they have been selected by the official government, and the practices of Backbone Teachers began attracting the attention of Chinese scholars (Chen & Lu, 2010; Jin, 2007).

Until now, however, as far as the literature on teacher leadership in Mainland China is concerned, empirical studies are so few that there is a void in the research regarding the dimensions of teacher leaders' perceptions, practices, and impact, and the conditions that promote and challenge teacher leadership, and the continued development of teacher leadership vis-à-vis Backbone Teachers in Mainland China. Therefore, this study was concerned about the roles and impact of current Chinese teacher leaders, and the relevant conditions that promoted and challenged teacher leadership in two public middle schools in one city in Mainland China.

Research Questions

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of Backbone Teachers, non-Backbone Teachers, and principals and the interactions among those three groups were described and analyzed to construct an understanding related to the development of teacher leadership in Mainland China.

To achieve these objectives, the guiding research questions included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?

3. What was the impact of Backbone Teachers as teacher leaders on teacher professional development and school improvement?

Conceptual Framework

Because the purpose for this research was to gain an in-depth understanding of the current dynamics guiding the development of Backbone Teachers, the use of a qualitative inquiry approach was imperative. According to Creswell (1994), the definition of qualitative research is “an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting” (pp. 1-2). The emphasis of qualitative research is recording constructed social experience with given meaning (Denzin & Lincoln, 2000), and qualitative methodology is best applied to an in-depth, detailed study of issues (Patton, 2002).

This study was framed in the epistemology of social constructionism with the design suited to construct knowledge about the experiences of Backbone Teachers as being teacher leaders in Mainland China. Because meaning is embedded in the social and historical context of Mainland China and the meaning making achieved through the perceived Backbone Teachers’ experiences, social constructionism was a logical approach to follow in the design of the study and throughout the analysis of data.

The theoretical perspective of this study was interpretativism. This study used an interpretivist theoretical approach to understand teacher leaders’ roles and impact within specific conditions which might be supporting or challenging to teacher leadership in Mainland China. The researchers’ interest in this study was the context-bound meanings of teacher leadership to the participants and how such an understanding guides them to exert their practices as Backbone Teachers.

A case study was selected as the method for this study. To understand the development of teacher leadership from the perspectives of the three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—at the research sites, a “collective case study” (Stake, 1995, p. 4), focusing on the combined three cases, was chosen. Those three groups whose perspectives were examined for this study constituted three separate cases as well as one bounded case.

Overview of the Methods

Stake (2005) described the case study as a method choice to “facilitate the conveying of experiences of actors and stakeholders as well as the experiences of studying the case” (p. 454). To understand the roles and impact Backbone Teachers exerted within the condition that might support or challenge the development of their leadership, a case study was chosen in this study as an appropriate qualitative inquiry to examine perceptions and behaviors of the three groups of actors—Backbone Teachers, non-Backbone Teachers, and principals—involved in the school. Therefore, 10 participants were purposefully chosen as participants, including 4 Backbone Teachers, 4 non-Backbone Teachers, and 2 principals respectively from 2 middle schools in the same district in a city in Mainland China. After giving the participants the consent forms and demographic sheets to fill in, the data were collected through interviews, observations, shadowing experiences, and artifacts and documents, in accordance with the study’s pursuit of participants’ perspectives of the development of Backbone Teachers as teacher leaders.

The interview question guided the conversations with the individual groups of participants, and the semi-structured interviews lasted approximately two hours. Follow-up interviews with participants were not planned to occur unless stray categories emerged from the data and required further information or elaboration from specific participants. All participants

agreed to possible follow-up interviews, but no follow-up interview actually occurred. With participants' permission, all the interview conversations were recorded. In the meantime, field notes were written during the interviews. The interview transcriptions were sent to my participants for accuracy checks. Each participant was assigned a pseudonym replacing direct identifiers in the interview data, data collected while shadowing participants, and in field notes and other research memos.

Observations were performed during the regularly scheduled formal meetings and activities including weekly lesson study meetings and weekly teaching and research activities in the two schools. In this study, the researcher shadowed in total four Backbone Teachers each for one week outside of their classroom environments in the two schools. When shadowing the Backbone Teachers, the researcher often asked questions on site, and the participants answered those questions quickly and even provided more illustrations to amplify their responses. Field notes of observations and shadowing experiences were taken to record the events, and the filed notes were further expanded soon after each encounter.

The constant comparative method was used in this study to make within-case analysis and cross-case analysis. This study strictly followed the four stages of constant comparative analysis—(a) comparing incidents, (b) integrating categories and their properties, (c) delimiting the theory, and (d) writing the theory—so as to “generate theory more systematically” (Glaser, 1994, p. 182). With the research questions as the guiding framework, data coding was conducted to develop categories, patterns, and themes. After fully understanding the individual cases, all three cases including Backbone Teachers, non-Backbone Teachers, and principals were combined and aggregated thematically.

Significance of the Study

The concepts and practices of teacher leadership have gained their currency in the past two decades, but less is known about how teacher leadership develops and about its impact in the Western literature (York-Barr & Duke, 2004). In addition, the lack of a precise definition has resulted in teacher leadership being associated with a wide range of activities, roles, and behaviors. As a consequence, “teacher leadership has become an ‘umbrella phrase,’ often meaning different things in different settings” (Harris, 2005, p. 204). More empirical research is needed to clarify these issues. This study attempted to offer plausible, international insights on the development and impact of teacher leaders with formal titles such as Backbone Teacher.

The empirical findings and theoretical themes constructed through this study will hopefully fill the gap in the teacher leadership literature. Besides, exploring the development of Backbone Teachers as teacher leaders in Mainland China can also provide a fresh perspective in contrast to the development of teacher leadership in the United States, which would help scholars to learn more about teacher leadership in different contexts through international perspectives.

Compared to Western literature, the current literature on teacher leadership development in China is very limited. There are almost no relevant theories about teacher leadership; therefore, it is necessary to study these complex relationships to construct theoretical concepts that could possibly be applied to the Chinese educational context about Backbone Teachers in Mainland China. Hopefully, this research on the impact of Backbone Teachers as teacher leaders in Mainland China will fill those gaps both theoretically and empirically.

As for the Chinese literature, the notion of teacher leadership is a fresh perspective that will be used to examine the applicability of the American concept of teacher leadership to Chinese concepts of Backbone Teachers. This new perspective will explore the feasibility of the development of teacher leadership concept applied to Backbone Teachers in China and construct the appropriate theories related to teacher leadership in the Chinese education context.

In addition, in practice, this research could possibly increase teachers' and principals' awareness and understandings of teacher leadership in Mainland China, which could be beneficial to Backbone Teachers, their teaching colleagues, and principals. Discussing their experiences and perceptions might enable the participants to understand themselves and their context more from the perspective of teacher leadership and to help them to exert their leadership in formal or informal ways. As the Western literature has shown that promoting teacher leadership enhances teachers' professional growth and school improvement (Murphy, 2005), the research findings might enable policy makers to consider adjustments of current Backbone Teacher policies related to teacher leadership.

Assumptions

It was assumed that developing teacher leadership had a positive impact on school improvement and teacher professional development. Backbone Teachers in Mainland China were assumed to have more leadership functions at both instructional and organizational levels of practice. The role teacher leaders played were bounded by the specific conditions and the context of the schools in which they worked.

It was also assumed that there was a high level knowledge about effective instructional practices as well as a high level of professionalism among Backbone Teachers involved in this study. This assumption was based on the selection criteria for Backbone Teachers in Mainland China.

Definition of Terms

To better understand the study, key terms were defined as follows to help clarify the contents of text, and to establish a context for the findings.

Teacher leadership – Defined by Katzenmeyer and Moller (2009), “teacher leaders lead within and beyond the classroom; identify with and contribute to a community of teacher learners and leaders; influence others toward improved educational practice; and accept responsibility for achieving the outcomes of their leadership” (p. 6).

Teacher leader – Summarized by York-Barr and Duke (2004), “teacher leaders are or have been teachers with significant teaching experience, are known to be excellent teachers, and are respected by their peers” (p. 267).

Backbone Teachers – Backbone Teachers are a unique group of teachers in Mainland China, who are selected as key teachers, recognized and developed by the official government and considered to be better than average teachers in aspects of morality, professional qualification, and research ability. In present practice, Backbone Teachers are generally considered excellent teacher representatives, sorted by three hierarchical levels—the national level, local level (including province, city, county), and school level, and are given honorable titles, such as “instructional leader,” “famous teacher,” “master teacher,” “backbone teacher,” and so on (Wang, 2008). This type of teacher group, developed by the government, was

supposed to act as a model and backbone, playing a significant role in promoting collective improvements for teachers in Mainland China.

Limitations of the Study

There were limitations to this study. First, the study was limited by qualitative bias that is inherent to this method. The findings gained from this study could only speak to the perceived understandings of the participants, which would provide lessons for further studies related to teacher leaders in China, but could not be a generalization aimed at the entire population of teacher leaders. Secondly, the study might be limited in its depth and accuracy because the participants might not be open and honest in their responses during the interviews and the language translation might cause missing information or misunderstandings. Finally, the researchers' lack of experience working in Chinese middle school might, to a certain extent, constrain analytic insights and theoretical sensitivity to the interview and observation data.

Organization of the Dissertation

Chapter 1 introduces the general information about this study including the background and rationale for the study, statement of the problem, purpose of the study, research questions, conceptual framework, significance of the study, pertinent definitions, and brief overview of the research method, limitations, and assumptions of the study. Chapter 2 presents a review of the literature relevant to the teacher leaders in both United States and Mainland China. Within this review, the topics included definitions of teacher leadership, teacher leader status attainment, historical and cultural impediments, and the impact of teacher leadership. Moreover, the history and research related to Backbone Teachers will be examined, and comparisons—both similarities and differences—between U.S. teacher leaders and Mainland China Backbone Teachers will be provided.

Chapter 3 describes the research method in detail about how the study was designed along with how the design aligned with the theoretical framework. Data collection, analysis, trustworthiness, and limitations are examined. Chapter 4 describes the context of the study including the profile of the district, the schools, and the participants. After presenting the context of this study, Chapter 5 and Chapter 6 respectively provide a within-case analysis and a cross-case analysis of the data. The last chapter, Chapter 7, offers a summary with implications and a discussion related to the findings. Implications for further research, policy, practice, and professional development are also offered in Chapter 7.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

Introduction

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of Backbone Teachers, non-Backbone Teachers, and principals, and the interactions among these three groups were described and analyzed to understand better the role and impact of Backbone Teachers as teacher leaders in public middle schools in Mainland China. To achieve these objectives, the guiding research questions included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teacher professional development and school improvement?

Considering the purpose of this study and based on the guiding research question, this chapter presents five areas of literature, including: 1) the definitions of teacher leadership, 2) the roles of teacher leaders, 3) teacher leader status attainment, 4) the historical and cultural impediments, and 5) the impact of teacher leadership. Each section of the literature review presents relevant studies grounded in the United States and in Mainland China and the findings from their comparisons.

Definitions of Teacher Leadership

It has been over two decades since the emergence of the concept of teacher leadership in the United States, and although teacher leadership is no longer an unfamiliar idea, there has never been a consensus on a shared definition for this unique form of leadership in schools (Katzenmeyer & Moller, 1996, 2001, 2009; Murphy, 2005; Wasley, 1991; York-Barr & Duke, 2004; Zepeda, Mayers, & Benson, 2003). As a consequence, there is an “expansive territory encompassed under the umbrella term teacher leadership” (York-Barr & Duke, 2004, p. 260) and “ambiguity surrounding the term in the literature” (Crowther, Kaagan, Ferguson, & Hann, 2002, p. 5). For example, teacher leaders are given different titles which mean different things in different school and system settings (Mangin & Stoelinga, 2008); therefore, “confusions and expectations of teacher leaders abound” (Katzenmeyer & Moller, 2001, pp. 4-5).

Murphy (2005) provided three possible rationales that affected the predicament faced by today’s educational scholars and practitioners who are interested in teacher leadership. First, teacher leadership was such a “fairly recent phenomenon” (Yarger & Lee, 1994, p. 233) that there was no “well-established body of literature” (Wasley, 1991, p. 9), and when including the term teacher leadership in their works, most authors described the various forms while very few authors considered the definition of this concept (York-Barr & Duke, 2004). Secondly, the idea of teacher leadership as “an element in school reform models” (Murphy, 2005, p. 10) was deeply woven into the various waves of educational reform movements. In other words, the meaning of teacher leadership had been constantly evolving and redefined based on the tenets of different reform efforts. Thirdly, teacher leadership, per se, was a complex issue. There was a great deal of variability in how teacher leadership was portrayed in practice. For example, teacher

leadership roles and positions, plus the situated context, were all critical variables to the implementation of teacher leadership.

Looking back on the existing definitions of teacher leadership in the United States, it was clear that most highlighted the roles and operations of teachers exerting leadership, rooted in various educational reforms in the United States since 1980s. The typical attributes included:

- Teacher leadership is defined as influencing and engaging colleagues toward practice. (Wasley, 1992, p. 2)
- Our definition of teacher leadership proposes that teachers are leaders when they are contributing to school reform or student learning (within or beyond the classroom), influencing others to improve their professional practice, or identifying with and contributing to a community of leaders. (Moller & Katzenmeyer, 1996, p. 5)
- Teacher leadership is about action that transforms teaching and learning in a school, that ties school and community together on behalf of learning, and that advances social sustainability and quality of life for a community. (Crowther, Kaagan, Ferguson, & Hann, 2002, p. xvii)

Most commonly, teacher leadership was represented by the instructional expertise of teacher leaders assuming formal positions (e.g., department chairs, curriculum leaders, etc.), or with formal titles (e.g., mentor, master teacher, National Board Certificate Teachers, etc.) in an existing hierarchical school structure that influenced and helped other teachers to perform better. Then, teacher leadership roles were expanded to include participating in decision making, supporting restructuring in schools, and contributing to the development of learning communities, and in providing key professional development (Darling-Hammond, Bullmaster, & Cobb, 1995; Moller & Katzenmeyer, 1996; Murphy, 2005; Zepeda, 2011). New positions such as coaches

and coordinators were created to expand the responsibilities of teacher leaders. Later, performance outcomes as an accountability measure were emphasized in developing teacher leadership to improve the quality of teachers' and student's achievement. Apparently, the definitions of teacher leadership highlighted those evolving themes and expanded the roles of teacher leaders in the United States. Table 2.1 illustrates the evolution of teacher leadership from 1980 to the present.

Table 2.1

Evolution of Teacher Leadership from 1980 to the Present

Years	Roles of Teacher leaders	Positions or Titles
1980s	Instructional expertise	Department chair; grader leader; curriculum leader; mentor; master teacher; National Board Certified Teacher; etc.
1990s	Shared decision making in a professional learning community	Coach; coordinator; etc.
2000s	Accountability	Department chair; grader leader; curriculum leader; mentor; master teacher; National Board Certified Teacher; coach; coordinator; etc.

While American scholars were searching to identify commonalities and inconsistencies that defined teacher leadership in the diversified studies on teacher leaders in the United States, Chinese scholars on the Mainland have just begun the journey of conducting teacher leadership research with few studies available, following the lead of Hong Kong scholars. Recently, the terms “teacher leadership” and “teacher leader” have been used in academic articles related to outstanding Chinese teachers with formal titles or positions, such as Backbone Teachers. Faced with various definitions from American research, Hong Kong scholars Leslie and Chen (2006) were inclined to employ the teacher leadership concept defined by Harris (2003). After making

some adjustments, however, Leslie and Chen created their own definition of teacher leadership: “teacher leadership is the exercise of leadership by teachers regardless of position or designation, of which enhancing teacher professionalism, redistributing power, and improving mutual engagements among colleagues are its natural characteristics” (p. 56).

Another scholar, Jin (2007) in Mainland China, adopted the definition proposed by Rosenholtz (1989): “Teacher leaders were identified as those who reached out to others with encouragement, technical knowledge to solve classroom problems, and enthusiasm for learning new things” (p. 208). Jin (2007) asserted that Rosenholtz’s definition of teacher leadership would make more sense because Rosenholtz defined leadership as a rational process where individuals influenced a community to achieve common goals.

Other scholars in China have described various teacher leadership concepts as an introduction to the development of teacher leadership in the United States (Liu, 2007; Long & Chen, 2010). Except for these two specific definitions, Chinese scholars did not concur on a definitive concept for teacher leadership.

But before the introduction of the concept of “teacher leadership” and “teacher leader,” there was a definition about Backbone Teachers. Since Backbone Teachers have been considered as teacher leaders with formal titles, the definition of Backbone Teachers might reflect some attributes of teacher leaders. In the Chinese Educational Dictionary, the Backbone Teacher is defined as “a kind of teacher with a high-quality in professional and research ability, playing the key role in pedagogy, instruction, and research” (Gu, 1990, p. 22). Presently, Backbone Teachers are generally considered as excellent teacher representatives, assuming the position of department chair, grade leader, or director of teaching affairs in the school, usually with the honorable title, such as “Primary Teacher,” “Teaching Master,” “Backbone Teacher,”

and so on. Currently, this new type of teacher group was broadly considered as teacher leaders to lead whole teacher group to promote high-quality education in Mainland China (e.g., Chen & Lu, 2010; Jin, 2007).

Although the advancement of Backbone Teacher was a Band-Aid approach to the problem of limited educational resources in the 1960s, the development of Backbone Teachers has evolved through the years in Mainland China. Compared to the evolving phases of teacher leadership in the United States, the current development of Backbone Teachers in Mainland China appears to be following all the evolving phases of the American models of teacher leadership. Comparisons are offered to illustrate the similarities in the evolution of Backbone Teachers within the context of the evolution of teacher leadership in the United States.

First the development of Backbone Teachers in Mainland China seems to be similar with the development of the first phase of teacher leadership in the United States in the 1980s, with features of instructional expertise in a hierarchical organizational structure (Murphy, 2005). In Mainland China, the hierarchical teacher career ladders are based on expertise with matching benefits provided for backbone teachers. . Each Backbone Teacher must fulfill his or her assigned task, including being a mentor for novice teachers and a leader of research projects.

Also, the second phase of teacher leadership in the United States featured widespread collaboration, peer coaching, and learning communities. While in Mainland China the collectivism of the Chinese culture has always been embraced such features among teacher groups (Ding, 2007). Moreover, the idea of promoting the professionalization of all teachers in the United States matches the goal of developing Backbone Teachers, whose main value is to develop entire teacher groups.

In addition, the latest development of teacher leadership is facing the political environment oriented to increasing external intervention and control in the United States. Within the centralized education system, the Chinese teachers have been working in such conditions for years. However, the recent educational reforms have seemed to make decentralized educational system in the United States oriented toward centralized reforms and structures, while centralized educational system in China have historically been oriented toward decentralized reforms and structures. Therefore, the current development of teacher leadership in Mainland China is a mixture of all evolving phases in the United States but with a different political ideologies and cultural assumptions. The concept of teacher leadership presented by Katzenmeyer and Moller (2009) appears to capture both the definition and roles of teacher leaders in both countries, “Our definition is teacher leaders lead within and beyond the classroom; identify with and contribute to a community of teacher learners and leaders; influence others toward improved educational practice; and accept responsibility for achieving the outcomes of their leadership (p. 6). Embedded in this definition are four characteristics: 1) shared leadership opportunities; 2) learning community; 3) collaboration; and 4) accountability. These four characteristics are all appropriate for the current development of Chinese teacher leaders.

As for the first characteristic, shared leadership opportunities, although currently most Chinese teacher leaders do not participate much in school decision making, some have tried to expand their roles at the local level. Studies on school-based experiences, referring to the latest curriculum reform, have found teacher leaders were gradually collaborating on some school decisions (Li & Lu, 2009).

The second characteristic, building a teacher learning community, is an effective approach to promoting teacher professional development and school improvement. Katzenmeyer and Moller (2009) clearly expressed that all teachers could be leaders in a community, while Chinese cultural norms assume that only selected elites could be leaders. However, since the goal of teacher leadership in both countries was to improve the quality of all teachers, it was possible to adopt different ways of achieving common goals under the same guide of the learning community.

The third and fourth characteristics, collaboration and accountability, are suited to the instructional responsibilities of Chinese teacher leaders who face the astronomical pressure of student achievement from society as a whole and who, also, affect their colleagues' ability to improve instructional expertise. In short, this definition can be used as a framework to better understand the responsibilities and goals of teacher leadership both in the United States and Mainland China. Table 2.2 illustrates the definitions of teacher leadership in the U.S. and in Mainland China.

Table 2.2

Definitions of Teacher Leadership in the United States and in Mainland China

Unite States	Researcher(s)	Mainland China & Hong Kong	Researcher(s)
Influencing and engaging colleagues toward practice.	Wasley, 1992	Teacher leadership is the exercise of leadership by teachers regardless of position or designation, of which enhancing teacher professionalism... are its natural characteristics.	Leslie & Chen, 2006

Unite States	Researcher(s)	Mainland China & Hong Kong	Researcher(s)
Teachers are leaders when they are contributing to school reform or student learning ... or identifying with and contributing to a community of leaders.	Moller & Katzenmeyer, 1996	Teacher leaders were identified as those who reached out to others with encouragement ... and enthusiasm for learning new things.	Jin, 2007 adopted Rosenholtz's definition (1989)
Action that transforms teaching and learning in a school ... that advances social sustainability and quality of life for a community.	Crowther, Kaagan, Ferguson, & Hann, 2002	Backbone Teacher is defined as a kind of teacher with a high-quality ... playing the key role in pedagogy, instruction, and research.	Gu, 1990
Teacher leaders lead within and beyond the classroom ... and accept responsibility for achieving the outcomes of their leadership.	Katzenmeyer & Moller, 2009		

Roles of Teacher Leaders

Teacher leaders are both teachers and leaders. Therefore, their roles are both referring to teaching activities and leadership activities. A number of different roles have been suggested for teacher leaders by leading scholars in the United States. For example, Smylie and Denny (1990) described four types of roles of teacher leaders: being a resource for other teachers and administrators, planning and leading staff development activities, leading and assisting in the development of curricula and instructional strategies, and serving as a link among teachers and administrator. Boles and Troen (1996) listed five areas of teacher leadership: pedagogical innovation, preservice teacher education, curriculum development, research, and governance. Katzenmeyer and Moller (2001) outlined three main facets of teacher leadership: leadership of

students or other teachers, leadership of operational tasks, and leadership through decision making or partnerships.

Based on those typical role descriptions of teacher leaders, Murphy (2005) summarized that most of these descriptors could be sorted into two broad related categories: helping teacher colleagues and facilitating school improvement. The former category was the foundation of the latter, for the primary roles of teacher leaders were identified in terms of helping and supporting fellow teachers within their buildings (Smylie & Denny, 1990). Related to helping teacher colleagues, teacher leaders, who are “role models who facilitate the development of those around them” (Boles & Troen, 1996, p. 48) by standing up to confront the barriers, revealing to others new ways of working, and positively influencing fellow teachers’ willingness and capacity to implement change in the school (Leithwood, Jantzi, Ryan, & Steinbach, 1997).

To facilitate school improvement, teacher leaders were usually involved in three broad domains: administrative tasks, staff development activities, and curriculum and instructional functions (Murphy, 2005). Over the years, administrative tasks were always reported as central elements of teacher leadership (Leithwood et al., 1997; Wasley, 1991). Teacher leaders often serve as mentors to new teachers and peer coaches to experienced colleagues (Katzenmeyer & Moller, 2001, 2009). Moreover, the significant role of teacher leaders in the areas of curriculum and instruction were reported in many studies (e.g., Phillips, 2004; Wasley, 1991). Beside the three standing domains, there were also three cross-cutting domains, including conducting research with colleagues on the curricular and instructional programs (Boles & Troen, 1996), participating in school decision making (Smylie & Denny, 1990), and engaging as a liaison between administrative leaders and teachers (Silva et al., 2000).

In Mainland China, the roles of Backbone Teachers were delineated in *The Action Plan for Educational Revitalization Facing the 21st Century* proposed by the Minister of Education in Mainland China (Minister of Education, 1998). As the action plan stated, Backbone Teachers were expected to be exemplary examples to lead their fellow teachers to achieve the goal of building a high-quality teaching group. Based on the descriptions in the action plan, various scholars in Mainland China gave their own understandings about the roles of Backbone Teachers.

For instance, Fan (2004) provided four types of roles of Backbone Teachers in the educational reform in Mainland China: the leader of teacher professional development, the guider of school-based training, the facilitator of curricular reform implementation, and the collaborator in study and research projects. Guo (2006) categorized Backbone Teachers' work related to curricular and instruction into three areas: demonstrating and disseminating exceptional and effective instruction, facilitating curricular reform and mutual development of teachers and students, and bolstering school improvement. Zhou (2009) reviewed the existing literature related to teacher leaders and offered six clusters of roles teacher leaders in Mainland China assume:

- the facilitator for student learning,
- the helper for teaching colleagues,
- the constructor of learning community,
- the team collaborator,
- the participant of school development, and
- the guider of parents.

The roles were referring primarily to achievement related to instructional improvements.

In summary, there are many commonalities in the roles of teacher leaders in the United States and in Mainland China. Only two points are different. First, in the United States, teacher leaders are assuming the roles of participating in building-level decision making and acting as a conduit for communication between administrators and teachers. In Mainland China, these two roles have rarely been mentioned, almost beyond the consideration of teacher leaders' roles. Second, being instructional leaders is obviously the primary role of Backbone Teachers in Mainland China and it also includes the role of guiding parents to work together in improving student achievement, which has rarely been mentioned in the American literature. Traditionally, most Chinese parents believe that good performance in school is the only way for their children "to own" a bright future. That is why parents in China (even illiterate) pay much attention to their children's achievement, and they would try their best to assist teachers' efforts. Thereby, Backbone Teachers assume additional responsibility of providing advice for parents in Mainland China. Table 2.3 illustrates the teacher leader roles in the United States and in Mainland China.

Table 2.3

Roles of Teacher Leaders in the United States and in Mainland China

	United States	Mainland China
Roles of teacher leaders	Role models Administrative tasks Staff development activities Curriculum and instructional functions Conducting research <i>Participating in school decision making</i> <i>Liaison</i>	The facilitator for student learning Helper for teaching colleagues The constructor of learning community The team collaborator The participant of school development <i>The guider of parents</i>

Note. The italic parts in Table 2.3 highlighted differences in the roles of teacher leaders in the United States and Mainland china.

Teacher Leader Status Attainment

There are different assumptions in the United States and in Mainland China about who is capable of assuming the role of teacher leader. The current assertion in the United States is that every teacher can be a teacher leader (Katzenmeyer & Moller, 2009). However, the reality of teacher leadership is that it “may not be for every teacher at all points in a career” (Katzenmeyer & Moller, 2001, p. 57). When the time comes, American teachers may choose to accept or to avoid extra responsibilities. While in Mainland China, it is believed that very few people, only those who excel well beyond average, can be selected to lead followers to achieve common goals (Lesile & Chen, 2007). Under this assumption, presently, the majority of Backbone Teachers as teacher leaders in Mainland China are all selected and appointed, with formal titles or positions, by the higher educational administration. Therefore, both in the United States and in Mainland China, compared to the great population of teacher groups, there are only a few teachers actually engaging in teacher leadership. The attainment of teacher leader status depends on two conditions: the first is personal qualifications of the teacher and the second is the context conditions, including relationships with colleagues and principals, and the school needs where the role would be enacted.

Personal Qualifications

To attain teacher leader status, teachers must exhibit certain personal expertise, dispositions, and values. Of course, personal qualifications are diverse for each individual teacher leader in each diverse context. However, composite characteristics for teacher leaders in the United States and in Mainland China are as follows.

Expertise. To be a teacher leader, the most essential attribute is expertise (Snell & Swanson, 2000). York-Barr and Duke (2004) indicated that the significance of expertise in being a teacher leader had been ascertained in the American literature related to teacher leadership. Teachers' knowledge of subject matter and instructional skills, mastery of classroom management techniques, extensive teaching experiences, and additional years of formal education are all elements of expertise (Murphy, 2005). Apparently, expertise is connected to exemplary teaching, which is the foundation of teacher leadership (Snell & Swanson, 2000).

In Mainland China, a case study on the experiences of four Backbone Teachers found that before being selected to lead, the participants had to exhibit students' success (Wang & Cai, 2004a, 2004b). After administering a survey to hundreds of teacher leaders, non-teacher leaders, and principals in dozens of schools in Mainland China, Jin (2007) concluded that excellent teaching expertise was the primary qualification for being a Backbone Teacher.

It is clear that possessing expertise is a key characteristic of teacher leaders, which is broadly applied in both the United States and in Mainland China. In other words, teachers must develop classroom expertise before leading beyond the classroom (Katzenmeyer & Moller, 2001).

Dispositions and values. In addition to excellent expertise in teaching, teacher leaders are often distinguished by well-defined dispositions and values. In the United States, teacher leaders are often identified as risk-takers, collaborators, and reflective practitioners. Scholars found that teachers who engaged in leadership had higher risk-taking traits compared to those who did not engage in such acts (Wilson, 1993; Yarger & Lee, 1994). Teacher leaders must have the ability to collaborate with others (Danielson, 2007), and they are reflective about their teaching and their leadership (Katzenmeyer & Moller, 2001). Furthermore, teacher leaders are

known for their passion, enthusiasm and sense of optimism, conviction, and commitment to hard work (Crowther et al., 2002; Snell & Swanson, 2000; Wilson, 1993). Teacher leaders influence others and express a willingness to be responsible for their own actions (Yanger & Lee, 1994).

In Mainland China, except for general traits such as being hard working, open-minded, and willing to assume responsibility, effective Backbone Teachers should participate in research, be independent thinkers, and create innovation in their schools (Sun, 2009). There is no specific emphasis on collaboration, as collaborative work has always been the norm of teachers in Mainland China. In addition, morality has always been considered as the most important aspect of leaders' dispositions in any occupation in Mainland China. Therefore, Backbone Teachers' commitment to their students and schools was emphasized as a significant disposition by many Chinese scholars (e.g., Wang, 2005; Wang & Cai, 2004a, 2004b). Being a reflective practitioner seems to be the same for teacher leaders in both countries. Except for this commonality in dispositions and values, scholars in the two countries emphasized different attributes that make teachers into leaders. Table 2.4 illustrates personal qualifications for attaining teacher leader status in the United States and in Mainland China.

Table 2.4

Personal Qualifications for Attaining Teacher Leader Status in the U.S. and in Mainland China

	United States	Mainland China
Expertise	Good expertise	Excellent expertise
Dispositions and values	Risk-taker <i>Collaborator</i> Reflective practitioner Commitment to hard work Passion and conviction Willing to be responsible	Hard working Open-minded Responsibility Independent thinker <i>Morality</i>

Note. Italic parts in Table 2.4 highlighted the differences in personal qualifications for attaining teacher leader status in the United States and Mainland China.

Although there are different expectations placed on teacher leaders in both countries, the main characteristics are similar. Teaching expertise is the first step and foundational for gaining teacher leader status in both countries, while developing proper dispositions and values for teacher leaders is the second step.

Context Conditions

To gain teacher leader status also depends on the contexts of potential teacher leaders. Principals' and colleagues' trust, as well as opportunity, is significant for teachers gaining leadership status in both countries.

Colleagues. Potential teacher leaders need to gain respect and trust from their colleagues. Otherwise, they will never be recognized or emerge as teacher leaders. On the basis of their instructional expertise, teacher leaders need to build rapport and to gain the trust of their colleagues (Snell & Swanson, 2000). Hart (1994) stated that ongoing communication and feedback between teacher leaders and their colleagues promotes understanding and support. In Mainland China, Backbone Teachers are supposed to be elites. Based on the elitism assumption, if someone is considered elite, he or she will be so respected by others that his or her directives will be carried out without questions. Therefore, Chinese teachers usually respect the appointed Backbone Teachers and follow his or her lead to collaboratively do assigned tasks (Li & Lu, 2007). "The success of teacher leadership depends largely on the cooperation and interaction between teacher leaders and their colleagues" (Yarger & Lee, 1994, p. 229), which has been a universal assertion applied in school communities both in the United States and in Mainland China.

Principals. The support of the principal is critical for teachers to gain formal and informal leadership status in both countries. However, there is one thing worth noting. In the United States, sometimes, principals will not be willing to empower teacher leaders and the power conflicts might exist between teacher leaders and the principal; while in China, this situation will not happen because Chinese Backbone Teachers rarely participate in school decision making.

In the United States, numerous studies have suggested ways in which principals can promote teacher leadership (e.g., Hart, 1994; Murphy, 2005). Based on a multi-site case study of three schools, Ryan (1999) reported examples in which teachers were given and exercised leadership with the assistance of empowering principals. Silva, Gimbert, and Nolan (2000) describe a case where teachers felt as if their principals constrained their efforts to exercise leadership. Apparently, teachers cannot act in leadership roles unless administrators create conditions that foster empowerment.

In Mainland China, according to a directive from the Minister of Education (1998), principals would be in charge of selecting Backbone Teachers at the school level. The principal's choice determines a teacher's opportunity to assume this leadership position. In contrast to the situation in American schools, as of yet, there have not been reports in the literature or research about power conflicts between teacher leaders and their principals. Until now, Chinese Backbone Teachers, as instructional leaders, have rarely participated in making decisions for the school. Therefore, once a teacher is selected as a Backbone Teacher, principals usually support the Backbone Teachers, unconditionally.

Opportunities. Teacher leadership positions are always created based on a school's needs. Different waves of school reform in the United States have created a large number of leadership positions, such as master teacher, department chair, mentor, instructional coach, staff developer, and so on. In Mainland China, the curriculum reform of the 21st Century has also brought a host of new positions for teacher leaders, such as chief teacher and research director, and so on. Zepeda and other two scholars (2003) indicated that teachers could create opportunities for leading instead of being passive about teacher leadership. In their suggestion, teachers should express their interests in being teacher leaders, be aware of their environments and opportunities to lead colleagues, address the schools' needs, ask for more responsibilities and prove themselves. Therefore, when new positions or roles appear, it will be easy for teachers who actively prepared for those opportunities to assume these leadership responsibilities.

Summary. To gain leadership status, teachers need to work hard to win the support and recognition of colleagues and principals and make appropriate preparation for opportunities in both countries. In Mainland China, once a teacher is selected by the principal as the Backbone Teacher, he or she will usually never face any obstacles from colleagues and principals, while in the United States, it is a different story. To attain leadership status, in practice, American teachers need to gain cooperation through frequent communication and feedback. Table 2.5 illustrates the context conditions for attaining teacher leader status in the United States and in Mainland China.

Table 2.5

Context Conditions for Attaining Teacher Leader Status in the U.S. and in Mainland China

	United States	Mainland China
Colleagues	<i>Work hard to win</i> respects and trust from colleagues	Colleagues usually show respect and trust
Principals	Principal's support and willingness to empower (<i>Sometimes power conflict</i>)	Principals are in charge of selecting and usually support the selected teacher leaders.
Opportunities	Created by reforms	Created by reforms

Note. Italic parts in Table 2.5 highlighted differences in context conditions for attaining teacher leader status between the United States and Mainland China.

Historical and Cultural Impediments

Although opportunities for participating in teacher leadership have increased, there are still challenges facing teachers who are considering assuming these leadership responsibilities in the United States and in Mainland China. Scholars (e.g., Ding, 2004; Hart, 1995; Wilson, 1993) concluded that the long-established and accepted values, beliefs, and norms of the teaching profession, to a certain extent, have had a negative influence on the development of teacher leadership in the United States and in Mainland China. Based on different cultural and societal assumptions in the United States and in Mainland China, an overview of the existing historical and cultural impediments to teachers who seek to become teacher leaders in both countries can enable us to better understand the complexity and diversity of teacher leadership development. These historical and cultural factors can be divided into three categories: norms about teaching and leading, norms of teachers' work, and the nature of the organizational structure.

Norms about Teaching and Leading

Whether in the United States or in Mainland China, significant divisions exist between teachers and school administrators. It is believed that the work of teachers is to teach and the task of school administrators is to manage and to lead (Murphy, 2005). School administrators are the traditional authority figures in charge of school actions outside of the classroom (Smylie, 1992a). It is the teacher's job to comply with the directives from others higher up in the school hierarchy (Wasley, 1991). Teachers are supposed to be "followers, not leaders" (Moller & Katzenmeyer, 1996, p. 3). Related to this norm is a mutual agreement which refers to authority and autonomy between principals and teachers, in which teachers sacrifice influence at the school level for relative autonomy within their classrooms (Forster, 1997; Smylie, 1992b). Both teachers and principals often show reluctance to overturn this established understanding in both countries.

The United States. Teacher leadership in the United States requires teacher leaders to participate in school governance and to share decision making responsibilities with administrators, which violates the separation norms. If principals resisted such action and are not open to sharing power and authority, difficulties for teacher leaders would be predicted (Moller & Katzenmeyer, 2009). Forster (1997) argued that administrators' reluctance to share decision making powers might be responsible for teachers not assuming leadership roles. In addition, in his study, many teachers were also reluctant to become involved beyond the classroom level whether or not they desired to assume leadership roles.

Mainland China. In Mainland China, current Backbone Teachers mostly assume the role of instructional leader focusing on teaching, curricular issues, and lesson demonstrations. They rarely participate in school decision making, and their major responsibility centers on the

instructional program and conducting classroom observations (Jin, 2007). Therefore, there is not much of a power struggle between teachers and administrators. Chinese schools are bureaucratically oriented. This norm of teaching and leading results in a tacit pattern; a promotion to the Backbone Teacher can begin the progression to school administrator, and the instructional expertise of a teacher becomes a stepping-stone to success in his or her administrative career (Sun, 2009). Therefore, this mobility becomes one of the reasons why some teachers are reluctant to become Backbone Teachers to avoid being involved in leadership outside of the classroom.

Summary. The norm of the separation between teaching and leading is exerting negative influence on teacher leadership in both the United States and in Mainland China. In the United States, teacher leadership has expanded beyond the classroom, which has challenged this norm. In Mainland China, although the emergence of teacher leaders as instructional leaders does not usually conflict with this norm, bureaucratically oriented consequences have prevented some teachers from becoming teacher leaders.

The Norms of Teachers' Work

Differing norms have been established related to teacher professionalism in the United States and in Mainland China. The existing norms have different cultural impact on the emergence of teacher leaders in both countries.

The United States. Teachers' professional relationships were characterized by privacy, autonomy, and equality in the United States (Murphy, 2005). The norm of individual autonomy has bred a culture of isolation, which inhibits teachers from interacting with their teaching colleagues and administrators and exerting influence outside their classrooms (Wasley, 1991). The norm of professional privacy was defined as "freedom from scrutiny and the right of each

teacher to make independent judgments about classroom practice” (Little, 1988, p. 94), which is closely related to cultures of non-interference and non-judgmentalism. Teacher leadership requires a collaborative culture and frequent interaction with teaching colleagues, which breaches both the norms of autonomy and privacy. Therefore, the degree of collegiality is an important factor for teachers to consider before participating in leadership roles (Katzenmeyer & Moller, 2009).

The United States has a long history of “egalitarian norms” rooted in education (Katzenmeyer & Moller, 2001, p. 4). These norms suggest that all teachers hold equal positions and ranks except for seniority (Wasley, 1991). However, teacher leadership brings about differentiated status based on knowledge, skills, and initiative (Little, 1988; Yarger & Lee, 1994), which assaults the egalitarian culture in most American schools (Wasley, 1991).

Clearly, teacher leadership in the United States is inconsistent with these historical and cultural norms. The violation of these norms is associated with social costs, such as collegial disfavor and sanctions (Smylie, 1992a). Fearing the reactions of their colleagues, teachers are often reticent to assume leadership roles (Murphy, 2005).

Mainland China. In Mainland China, it is a completely different case. The norms of autonomy, privacy, and equality are replaced by collectivism, elitism, and hierarchism. The value placed on elite and hierarchical management has enabled the legitimacy of ranks with different tiers of titles based on professional expertise in every field including education. The belief in collectivism has formed a collaborative culture in Mainland China’s schools in which group lesson studies, group class observations, and group evaluations are the customary responsibilities of teachers (Ding, 2004). Chinese teachers are usually organized into teacher research groups, which are led by a teacher who is identified as one of the best in that group.

Teachers in the same group share office space and have common meeting times to discuss and exchange teaching experience and skills (Preus, 2007). As a matter of fact, from the perspectives of instructional leaders, the development of teacher leaders in Mainland China seems to be evolving more naturally than in the United States.

Summary. Therefore, norms of autonomy, privacy, and equality in teaching practices have become obstacles to the development of teacher leadership in the United States, as teacher leadership emphasizes collaboration, collegiality, and differentiated status. In contrast, the Chinese beliefs in collectivism, hierarchism, and elitism have enabled instructional teacher leadership to be more accepted among teachers.

The Nature of Organizational Structure

Bureaucracies in schools exert negativity on the condition of shared leadership both in the United States and in Mainland China. Rigidly timed schedules, the balance between classroom responsibilities and leadership functions, and a lack of access to new knowledge were all mentioned repeatedly by scholars (e.g., Smylie, 1992a; Katzenmeyer & Moller, 2009) as organizational barriers that hindered collegial interaction and leadership opportunities. Teacher leadership was considered to be equated with being overworked and working long hours in both countries (Walsey, 1991; Wang & Cai, 2004a, 2004b).

The United States. In the United States, teachers feel stressed due to organizational barriers as well as high-stake testing and accountability. Many American scholars (e.g., Harris & Muijis, 2003; Katzenmeyer & Moller, 2001, 2009; Murphy, 2005; Silva et al., 2000) indicated that these barriers suppressed the enthusiasm of faculty members to participate in leadership positions.

Mainland China. Chinese Backbone Teachers are facing the same stress originating from a lack of time, energy, and resources. Adding to this anxiety is the exam-oriented educational system, which means the entire society pays extra attention to student achievement. Chinese teacher leaders are expected to assume additional duties, while maintaining control over their students' achievement. Otherwise, they will face increased pressures from their principals and parents compared to teachers in the United States. In a case study on the experiences of four Chinese Backbone Teachers, Wang and Cai (2004a, 2004b) found that their participants felt stressed and exhausted in dealing with their classroom responsibilities and additional leadership roles. Furthermore, considerations of added anxiety and losses of personal well-being actually might deter teachers from assuming leadership responsibilities (Jing, 2007).

Because formal teacher leadership opportunities are few compared to the number of school teachers and the benefits are great, the competition for the Backbone Teacher positions in Chinese schools is very intense. The intense competition leaves some teachers feeling so drained and dejected that they never try for these positions (Jin, 2007).

Summary. The existing school structures in both the United States and Mainland China set up many organizational barriers which prevent teachers from assuming leadership roles. High-stake testing and accountability have aggravated these situations in both countries. The intense competitions for formal positions in Mainland China are also impeding teachers from being leaders.

Impact of Teacher Leadership

Teacher leadership is asserted to “make a major difference to the personal and interpersonal capacities of themselves and their colleagues, to pupils' learning and to the organizational structures and cultures of their schools” (Frost & Durrant, 2003, p. 4). However,

there is only thin empirical evidence to support these assertions. Therefore, based on the limited and mixed empirical evidences reviewed in the literature, Harris (2005) raised the concern whether teacher leadership was more than just a feel-good factor? Here the existing studies are presented, conceptually and operationally, on the impact of teacher leadership in both countries through three levels including impact on the school (including relationships, classroom practices, school decision making), impact on teacher leaders, and impact on students.

Impact on the School

Over the years, research has identified teacher leadership as being essential to school improvement (Murphy, 2005). Teacher leadership is considered “a vehicle for teacher professional development and improvement in school organization and classroom instruction” (Smylie, 2008, p. ix). Harris (2003) summarized four roles of teacher leadership in relation to school improvement: 1) influencing practice role, 2) empowering teacher role, 3) mediating role, and 4) forging relationship role. The first role assumes that through having meaningful conversations about teaching and learning with their peers, teachers can highlight good practices and areas for future development. The second role emphasizes that participative leadership can promote a sense of ownership and foster a more collaborative way of working towards collective goals. The third role indicates that teachers are important sources of expertise and information to help drive school improvement. The last role highlights the mutual learning between teachers as an important determinant of school improvement. Therefore, through collaboration and collegiality, with the goal of promoting the professionalization of all teachers, teacher leadership enhances the capacity for change and improvement at both the school and classroom levels (Harris & Muijjs, 2003).

United States. In the United States, empirical findings regarding the impact of teacher leadership on the school level were variable and inconsistent (Harris, 2005). One study conducted in a large urban district that measured degrees of participation in decision making and teacher satisfaction by surveying teachers at the identified sites showed that teachers at both high and low participation sites felt equally deprived in regard to their participation in decision making (Taylor & Bogotch, 1994). Griffin (1995) interviewed five teacher leaders, each from a different school district, and he found that the introduction of teacher leadership and the expansion of shared leadership had positive school-level impact but weak classroom-level impact.

The 12 teacher leaders in a multi-site case study of 3 schools conducted by Ryan (1999) on the perceived impact of teacher leadership were viewed as extending their influence beyond their own departments. The teachers reported being satisfied with the level of influences they could exert on school policy and teacher practice through their position as department chairs. Beachum and Dentith (2004) conducted an ethnographic study of 25 teacher leaders in 5 schools within a large Midwestern city school district and found that teacher leaders were successful agents and conduits in promoting cultural change in their schools. Their conclusions asserted the possibility of teacher leadership as a model and theory of leadership for school renewal.

As for the impact of teacher leadership on their colleagues, the findings were even more divided in the relevant research. For example, Wasley (1991) conducted case studies of three teacher leaders in three different schools. Findings indicated conflicts and tensions between teacher leaders and their teaching colleagues. However, in the research by Ryan (1999), a high level of perceived impact on instructional practice of colleagues due to supportive school cultures and principal leadership had been revealed.

Mainland China. The influence of teacher leadership at school level in Mainland China had nearly nothing to do with the degree of participation in decision making in schools. There was only one study related to this issue. Jin (2007) used a mix method in which 530 participants including principals, Backbone Teachers, and non-Backbone Teachers in different schools and different cities were surveyed, interviews with 30 key participants were conducted, observation were conducted, and written documents were examined to explore the status of Backbone Teachers. Jin found less than 30% Backbone Teachers had participated in decision making and the degree of participation of Backbone Teachers in elementary schools was a little higher than that in secondary schools.

However, the positive impact of Backbone Teachers in demonstrating good instructions and expertise to peers were identified in almost all studies related to Backbone Teachers (Jin, 2007; Sun, 2009). The research by Jin (2007) indicated that more than the majority teachers and principals had recognized the positive influence of Backbone Teachers related to instruction. Sun (2009) conducted a survey and focus group interviews with 100 Backbone Teacher and 100 non-Backbone Teachers in one district in a city and found that Backbone Teachers were perceived to have a positive impact on instructional effectiveness when they were assuming peer coaching or mentoring.

In addition, in Mainland China, Backbone Teachers have become the brand of a good public school, which is used by principals as a vehicle to attract high-performing students and teachers. The more highly-qualified Backbone Teachers there were in one school, the more funding would be allocated to this school (Chen & Lu, 2010a).

However, because different Backbone Teacher rankings are related to different educational resource allocation, there are huge gaps in the quantity and the quality of resources and benefits provided for Backbone Teachers and non-Backbone Teachers and even for Backbone Teacher groups (Sun, 2009). For example, in a large-scale study conducted by Chen and Lu (2010a) they reported that Backbone Teachers at the national-level had opportunities to study abroad with funds provided by the Minister of Education, while their teaching colleagues, without leadership titles, only participated in free learning programs in the district. Therefore, intense competition occurred among teacher groups that led to various negative attitudes among teachers.

Summary. In summary, in both countries, the research related to the impact of teacher leadership on the school demonstrated inconsistent findings. In the United States, empirical studies showed positive relationships between teacher leadership and decision making, cultural transformation; however, numerous studies illustrated that there was a weak relationship with class instruction and negative relationship between teacher leadership and teacher satisfaction. In Mainland China, teacher leadership was positively related to instruction improvements among peers, resources allocated to the identified schools and instructional quality, but it also resulted in intense competition and inequality, which might not support professional development for all teachers within schools as Backbone Teachers were elites.

Impact on Teacher Leaders

Many studies have provided evidence that teacher leadership had a lasting, positive impact on teacher leaders themselves in both the United States and in Mainland China (Chen & Lu, 2010a, 2010b; Harris, 2005; York-Barr & Duke, 2004). There was also negative impact on the teacher leaders themselves. Teacher leaders were found hesitant to assume leadership

position because of the problematic relationship with colleagues (Wasley, 1991) and the stress from switching roles between teacher and leader (Katzenmeyer & Moller, 2001, 2009).

Similarly, Chinese Backbone Teachers were also facing pressure and overwhelming assignments from the parents and the school which often led them to feel exhausted (Wang & Cai, 2004a, 2004b).

As for the positive impact, according to the literature about teacher leadership in the United States and in Mainland China, teacher leaders' professional and personal gains were reported in the primary areas of improved expertise, promoted ownership, increased recognition and self-esteem, and status rewards.

Improved expertise. Assuming teacher leader positions such as mentors, instructional coaches, and curriculum developers provides teacher leaders with opportunities to reflect their own practices while helping their colleagues. Reflection has been reported to support the improvement of teacher leaders' instructional skills (Katzenmeyer & Moller, 2009). In addition to the growth in instructional and leadership skills, the participation in shared leadership and interaction with administrators can lead to increased organizational perspectives for teacher leaders (Barth, 2007; Ryan, 1999).

Teacher leadership has encouraged the same growth in expertise, which includes both aspects in teaching and leading, for Chinese Backbone Teachers. Open demonstration lessons are frequently used by Chinese Backbone Teachers to disseminate exemplary teaching strategies and to impart skills to other teacher leaders and teaching peers (Ding, 2004). Teacher leaders learn new instructional strategies through interaction with colleagues related to the demonstration lessons they observe (Song, 2009). In addition, through directing research groups, the leadership skills of teacher leaders also improve (Song, 2009).

Promoted ownership. Teacher leadership requires lead teachers in the United States to participate in decision making and to share leadership with principals, which can promote teacher leaders' commitment to their school communities. Barth (2007) asserted that "the teacher who leads gets to sit at the table with grownups as a first-class citizen in the schoolhouse rather than remain with the subordinates in a world full of superordinates" (p. 14). A sense of ownership is promoted by principals who empower their teacher leaders.

Although currently the majorities of teacher leaders in Mainland China assume instructional leadership positions and still do not participate in school decision making, the Chinese belief in collectivism and elitism of teacher leaders has enabled these teachers to consider themselves as the backbones of their school communities. Therefore, just like their American peers, after being teacher leaders, Chinese teachers enjoy a sense of ownership, albeit with more responsibilities and pressures from school administrators.

Increased recognition and self-esteem. Jointly, in the United States and in Mainland China, having been recognized as instructional leaders, the more roles teacher leaders assume, the more opportunities teacher leaders will have to earn recognition. A case study on lead teachers in the United States found that teaching colleagues support the added credibility of teacher leader roles and recognized their status (Taylor, Yates, Meyer, & Kinsella, 2010). Besides gaining recognition from colleagues and principals, Chinese Backbone Teachers also gain recognitions from the parents as well as the community in which the school resides. Due to the Chinese societal norms of respecting teachers and emphasizing student achievements, parents will try to enroll their children in the Backbone Teachers' classes, and this practice recognizes teacher leaders' expertise (Wang & Cai, 2004a, 2004b).

Such recognition can, in turn, generate enhanced self-esteem and self-confidence. Research findings in the United States suggested that “empowering teachers to take on leadership roles enhances teachers’ self-esteem” (Harris, 2005, p. 208). Margolis (2008) reported that teacher leaders gained improved self-confidence through teaching and leading. A similar case study on the growth experience of Chinese teacher leaders also supports the point that leading experience has enhanced these teachers’ self-esteem and self-confidence in their own abilities (Wang & Cai, 2004a, 2004b).

Status rewards. Teacher leadership offers alternative approaches for teachers to advance their careers besides climbing the traditional career ladder into school administration (Katzenmeyer & Moller, 2001; Zepeda et al., 2003). The differentiated professional status provided by teacher leadership has satisfied a need for teacher leaders’ career options. As a matter of fact, in addition to more options in career development, teacher leader status has brought substantial rewards for teacher leaders, including money and power.

As teachers assume leadership positions, such as department chairs, mentors, etc., they usually gain additional monetary compensation. In the United States, because of the norm of equality in the teaching profession, monetary compensation is minimal. Teacher leaders in the United States complain about the additional burdens outweighing the limited monetary rewards (Katzenmeyer & Moller, 2009). However, in Mainland China, because of the norm of elitism, to retain good teachers in the local community, there are a variety of rewards, such as monetary bonuses, which are based on ranking and granted to teacher leaders and educational administrative agencies. Backbone Teachers with good reputations can also earn tutoring fees from parents and educational institutions when urged to give additional lessons to children after

school. In this case, after teachers become teacher leaders, their socio-economic status is elevated, also.

One tenet of teacher leadership is to distribute power to teachers (Harris, 2003). Zepeda et al. (2003) summarized seven potential powers that teacher leaders could have: reward power, coercive power, legitimate power, expert power, referent power, informational power, and connection power. With all these powers, teacher leaders have more opportunities to gain access to resources and information, represent their teacher colleagues, arrange job duties and schedules, and make decisions as leaders. In Mainland China, because the teacher leaders approach is based on hierarchical roles, the higher up in the hierarchy these teachers are, the more power and benefits they will have. For example, in the survey conducted by Chen and Lu (2010a, 2010b), the Backbone Teachers at the national level had opportunities to study abroad with funds provided by the Minister of Education, while his or her teaching colleagues, without leadership titles, could only have access to free learning programs in the district (Chen & Lu, 2010a, 2010b).

Summary. Except the negative impact on collegial relationships and overwhelming workloads, teachers gain confidence and substantial rewards and benefits after they become teacher leaders in both countries. They are offered economical compensation as well as access to additional resources, information, and opportunities compared to their teaching colleagues. Their expertise in instruction and leadership are improved through experience and opportunities. In the meantime, their sense of ownership, recognition, and self-esteem have been enhanced by colleagues, principals, and parents. Based on different values and norms, American teacher leaders have relatively limited economic rewards compared to their Chinese peers. Table 2.6 illustrates the impact of teacher leadership on teacher leaders in the United States and in Mainland China.

Table 2.6

Teacher Leadership Impact on Teacher Leaders in the U.S. and in Mainland China

		United States	Mainland China
Impact on teacher leaders	Negative (few)	<i>Problematic relationships with colleagues</i> The stress	Much pressure and overwhelming assignments from parents and schools
	Positive (many)	Improved expertise <i>Promoted ownership</i> Increased recognition Self-esteem Status rewards	Improved expertise, Leadership skills, Recognitions and self-esteem, <i>More substantial status rewards</i>

Note. Italic parts in Table 2.6 highlight differences in teacher leadership impact on teacher leader between the United States and Mainland China.

Impact on Students

The United States. The relationship between teacher leadership and student learning outcomes is the most unclear issue in the existing teacher leadership literature in the United States. Many scholars argued that teacher leadership could enhance student learning (e.g., Katzenmeyer & Moller, 2001, 2009). However, the empirical evidence is sparse. York-Barr and Duke (2004) found only five studies directly related to the impact of teacher leadership related to gains in student achievement. In these five studies, the conclusions of the relationship between teacher leadership and student learning were inconsistent.

The first research conducted by Ryan (1999), who interviewed 12 teacher leaders, 18 teaching peers, and 3 principals in 3 elementary schools, showed that teacher leaders were perceived to have a positive impact on students because of teacher leaders' influences on instructional practice of colleagues and their involvement in school decision making. The second study conducted by Louis and Marks (1998) involved 24 urban schools, and the findings of this study did not discern a direct relationship between teacher empowerment and student

learning. However, Louis and Marks strongly supported the argument that empowerment did positively influence teachers' efforts to improve instruction. The third one was a quantitative study conducted by Taylor and Bogotch (1994) that reported no significant differences in terms of student attendance, achievement, or behaviors between schools with high degrees of teacher participation in decision making and schools with low participation. Leithwood and Jantzi (1999, 2000) conducted two large-scale quantitative studies involving about 1800 teacher each, with 9,900 students in the original study and 6,490 in the replication, and they reported no statistically significant relationship between teacher leadership and student engagement.

Besides these five reports, a few studies evaluating the impact of National Board Certified Teachers (NBCTs) have reported mixed findings. Some studies found that NBCTs were more effective in producing student achievement compared to non-NBCTs (e.g., Cantrell, Fullerton, Kane, & Staiger, 2008; Clotfelter, Ladd, & Vigdor, 2007); while some studies reported insignificant results about the relationship between student achievement and National Board Certified Teachers (e.g., Harris & Sass, 2007; Sanders et al., 2005).

In the book, *Improving Schools through Teacher Leadership*, Harris and Muijs (2004) examined a variety of research projects and found an indirect relationship between teacher involvement in decision making and improved student outcomes. Phillips (2004) conducted interviews with 1 principal and 12 teacher leaders in an elementary school and found that teacher leaders used the instructional leadership strategies and the outcomes of their use had positively affected classroom instruction, leadership capacity, ownership, job satisfaction and stability, and student engagement and achievement.

Based on what we have learned about the impact of teacher leadership on student achievement, Harris (2005) summarized:

What the literature does confirm is that where teacher leadership work is focused upon the classroom rather than the organizational level and where instructional improvement is at the heart of the work of teacher leader, there is greater chance of a positive impact upon student learning outcomes. (p. 210)

Except for this point, the link between teacher leadership and student outcomes is still unclear, and more studies are needed.

Mainland China. It is the same case in Chinese literature about the impact of Backbone Teachers on student achievement. In the existing literature about Backbone Teachers, it was asserted the positive influence of Backbone Teachers on students, but only three articles reporting empirical research about student learning outcomes could be found. The first study was conducted by Sun (2009) who conducted a survey and focus group interviews with 100 Backbone Teachers and 100 non-Backbone Teachers in 1 district. The purpose of the study was to explore the practicability of Backbone Teacher development. Sun (2009) found that Backbone Teachers were perceived to have a positive impact on instructional effectiveness when they were assuming peer coaching or mentoring, which also led to perception of positive impact on student learning.

Wang and Cai (2004a, 2004b) conducted case studies with four Backbone Teacher in four different schools to explore their experiences of being Backbone Teachers. The participants in Wang and Cai's research (2004a, 2004b) showed the positive impact on their students because the Backbone Teachers had more opportunities to share effective strategies with other Backbone Teachers and to participate in professional development to learn new instructional ideas. There were also some improvement of student achievement in the departments led by Backbone Teachers they were consistently sharing effective instructional strategies with their peers.

Jin (2007) used a mix method approach including a survey of 530 participants including principals, Backbone Teachers, and non-Backbone Teachers in different schools in different cities, interviews with 30 key participants, observation, and written documents to explore the status of Backbone Teachers. Jin reported that Backbone Teachers exerted a positive influence on their colleagues related to instruction. Jin also found since superior teaching was one of the major conditions for increased student achievement and since superior teaching is one of the primary conditions for a teaching being appointed as a Backbone Teacher, the impact of Backbone Teachers might not be directly related to student learning outcomes. However, through interviews, Jin (2007) implied such positive influence related to instruction on Backbone Teachers' colleagues would have the responding influence on student achievement in their colleagues' classes.

Obviously in Mainland China, Backbone Teachers do set a good example as instructional leaders for other teachers. Although articles (e.g., Jin, 2007; Wang & Cai, 2004) showed the positive relationship between Backbone Teachers and their colleagues' instructional improvement, and it was believed that sharing effective instructional strategies could enhance the students' achievement, few researches actually provide the evidences to support these assertions about Backbone Teachers.

Summary. Both in the United State and in Mainland China, teacher leadership is asserted to enhance student learning outcomes, but few empirical studies support this assertion. The empirical studies in the United States reported conflicting findings. Apparently, more empirical studies are needed to confirm or disconfirm the link between teacher leadership and student outcomes in both countries.

Chapter Summary

Over more than two decades since the emergence of the concept of teacher leadership in the United States, American scholars still have not reached an agreement on the definition of teacher leadership (York-Barr & Duke, 2004), due to the complicated nature of the concept of teacher leadership and the constantly evolving meanings of teacher leadership rooted in various waves of American educational reforms (Murphy, 2005). Compared to the diversified articles in American literature related to the definition of teacher leadership in the United States, there are only a few articles related to this concept existing in the present Chinese literature. According to the basic descriptions of teacher leaders in the United States and in Mainland China, the concept of teacher leadership defined by Katzenmeyer and Moller (2009) adequately defines the roles of teacher leaders in both countries, which emphasizes shared leadership opportunities, participating in learning community, supporting collaboration, and focused efforts on teacher and student accountability.

Teacher leaders are assuming both roles of teachers and leaders. The suggested roles of teacher leaders in the United States were clustered by Murphy (2005) into two categories including 1) helping teacher colleagues and 2) facilitating school improvement. The former one is the primary role and provides the foundation for the latter one. Compared to the roles of American teacher leaders, there is one different role of Chinese Backbone Teacher that is guiding parents to increase achievement on students. The role of Backbone Teachers participating in school decisions that was suggested for American teacher leaders has not attracted much attention in Mainland China.

Based on different assumptions in the United States and in Mainland China, focus on attaining teacher leadership status has emphasized different aspects of personal qualifications and conditions. However, the approaches are the same in both countries. In short, to attain teacher leadership status, teachers primarily need to develop unique personal qualifications. In the meantime, teachers need to maintain good relationships with their principals and colleagues and be ready to assume opportunities to assume more responsibility. As Zepeda et al. (2003) asserted, a “teacher leadership role or position will mostly likely be the result of ‘earned leadership’” (p. 11).

The historical and cultural differences between the United States and Mainland China initiated different consequences on the emergence of teacher leaders. The separation between teachers and administrators, existing bureaucratic organizational structures, and high-stakes accountability generally challenge teachers who want to assume leadership roles. Core professional norms in the United States and the intense competition for teacher leader selection in Mainland China work against the development of teacher leadership.

In both countries, the positive relationship between teacher leadership and school improvement and teacher professional development were claimed at conceptual levels by the leading scholars in both countries in this domain. However, empirical studies in both countries could provide evidence to support such a claim only at the level of teacher leaders themselves. As for student-level impact, the current empirical studies were too few to prove the direct positive link between teacher leadership and student learning outcomes in both countries, although the scholars believed that students would benefit from the improvement of teachers’ instruction through teacher leadership. As for the school-level impact, the empirical studies provided myriad context-specific variables and inconsistent findings in both countries.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The existing literature about teacher leadership needs more empirical research to clarify how teacher leadership develops and about its impact on school improvement and teacher professional development (Harris, 2005; York-Barr & Duke, 2004). The goal of this research was to explore the development of teacher leadership in two middle public schools in Mainland China. The practices and impact of current, formally appointed teacher leaders in Mainland China, called Backbone Teachers, were closely examined in relation to professional development and school improvement.

There were 10 participants involved in this study, including 4 Backbone Teachers, 4 non-Backbone Teachers, and 2 principals respectively from 2 middle schools in the same district. A qualitative case study inquiry approach was used to understand the development of teacher leadership from the perspectives of three groups of participants—Backbone Teachers, the non-Backbone Teachers, and principals—at the two research sites. The context of these two middle schools and the characteristics of the participants are described in depth in Chapter 4.

This chapter details the research process used from the beginning to the end of the study. Included are the research questions, the theoretical framework, the research design and rationale for the study, a description of the data sources, data collection and analysis, and the trustworthiness, and the limitations of the study.

Research Questions

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of Backbone Teachers, non-Backbone Teachers, and principals, and the interactions among these three groups were described and analyzed to understand better the role and impact of Backbone Teachers as teacher leaders in public middle schools in Mainland China.

The guiding research questions this study sought to answer included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teacher professional development and school improvement?

Theoretical Framework

This study was framed in the epistemology of social constructionism with the design suited to construct knowledge about the experiences of Backbone Teachers as being teacher leaders in Mainland China. Five tenets were described by Lock and Strong (2010) guiding social constructionism: 1) human activity is centered around meaning making and understanding, 2) meaning and understanding begin in social interactions through shared agreements about symbolic form, 3) meaning making is embedded in socio-cultural processes and context, 4) people are self-defining and socially constructed participants in their shared life, and 5) a critical perspective is adopted.

The Backbone Teachers' daily actions interacted with the principal and their teaching peers, and these interactions shaped the meanings of being teacher leaders in Mainland China. Based on the analysis of the roles and impact of Backbone Teachers embedded in the social and cultural norms and values in current Chinese education systems, the understanding of teacher leadership in Mainland China was generated from the collective experiences of the three groups of participants, Backbone Teachers, non-Backbone Teachers, and principals.

The theoretical perspective of this study was interpretivism. Glesne (2010) described that the research goal of interpretivist theoretical approaches was “understanding human ideas, actions, and interactions in specific contexts or in terms of the wider culture” (p. 8). This study used an interpretivist theoretical approach to understand Backbone Teachers' roles and impact within specific conditions which might be supporting or challenging teacher leadership in Mainland China. The researcher's interest in this study was the context-bound meanings of teacher leadership to the participants and how such an understanding guided them to exert their practices as Backbone Teachers.

A case study was selected as the method for this study. Yin (2009) described the case study as an empirical inquiry to gain an understanding of an event or phenomenon within its real-life context. To understand the development of teacher leadership from the perspectives of the three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—at two research sites, a “collective case study” (Stake, 1995, p. 4), focusing on the combined three cases, was chosen. Those three groups of participants whose perspectives were examined for this study constituted three separated cases as well as one bounded case.

Research Design and Rationale

Qualitative methodology was applied to this study. According to Creswell (1994), the definition of qualitative research is “an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting” (pp. 1-2). Denzin and Lincoln (2000) highlighted that qualitative research was recording constructed social experience with given meanings. As Patton (2002) commented, compared to quantitative methodology, qualitative methodology was best applied to an in-depth, detailed study of issues. Considering the purpose of the research was to gain an in-depth understanding of the current dynamics guiding the development of Backbone Teachers, the use of qualitative methodology was imperative.

To understand the roles and impact Backbone Teachers exerted within the condition that might support or challenge the development of their leadership, it was appropriate to examine the perceptions and behaviors of the different groups of actors involved in the school. Stake (2005) described the case study as a method choice to “facilitate the conveying of experiences of actors and stakeholders as well as the experiences of studying the case” (p. 454). Therefore, in this study, the case study was chosen as an appropriate qualitative inquiry and three groups of actors—Backbone Teachers, non-Backbone Teachers, and principals—were purposefully selected as the three cases.

There are three types of case studies that Stake (2000) delineated as follows:

1. Intrinsic: The researcher desires a better understanding of an individual case.
2. Instrumental: An individual case is examined to provide insight into an issue or to redraw a generalization.

3. Collective: The researcher applies the instrumental study to several cases to investigate a phenomenon. (p. 437)

As a collective case study, this study was interested in the issue of the development of Backbone Teachers through examining perceptions and behaviors of three cases—Backbone Teachers, non-Backbone Teachers, and principals—in two middle schools in Mainland China. The study analyzed three cases both individually and then collectively to develop a better understanding of the Backbone Teachers' roles and their impact within the conditions that shaped the current development of Backbone Teachers.

When multiple cases are chosen, a typical format is usually used, and according to Creswell (1998), researchers:

First provide a detailed description of each case and themes within the case, called a within-case analysis, followed by a thematic analysis across the cases, called a cross-case analysis, as well as assertion or an interpretation of the meaning of the case. (p. 63)

This present study followed Creswell's format using a within-case analysis where individual findings from the perspective of Backbone Teachers, non-Backbone Teachers, and principals from two schools were constructed to render a deeper understanding of the participants and their points-of-view. Using a cross-case analysis, categories or themes from individual findings were analyzed together as a bounded case for this collective study.

The researcher conducted in-depth interviewing with each of the 10 participants with 3 groups—Backbone Teachers, non-Backbone Teachers, and principals—from 2 schools. The interviews allowed the researcher to obtain the participants' perceptions on the world around them related to teacher leadership. Those perceptions were not always readily observable or obtainable through quantitative methods (Merriam, 1998). For this study, interview guides (see

Appendix A) for each group related to the research questions were created in advance and used in the semi-structured interviews. Table 3.1 illustrates sample interview questions in the guides related to the research questions.

Table 3.1

Sample Interview Questions Related to the Overall Research Questions

Overall Research Questions	Interview Questions for BTs	Interview Questions for non-BTs	Interview Questions for principals
What were the espoused roles and actual roles of BTs as teacher leaders?	<p>Please describe your job as a BT.</p> <p>What do you enjoy about your role as a BT?</p> <p>What should BTs do? What should be their roles and functions?</p> <p>Do you think you fulfill the roles and functions of BTs you described above? Why?</p>	<p>What should BTs do? What should be their roles and functions?</p> <p>Do you think BTs in your department fulfill the roles and functions you described above? Why?</p>	<p>Please describe your job, BTs' job and their situations in your school.</p> <p>What should BTs do? What should be their roles and functions?</p> <p>Do you think BTs in your school fulfill the roles and functions you described above? Why?</p>

Note. BT=Backbone Teacher; non-BT=non-Backbone Teacher.

The researcher observed one school-level administrative meeting hosted by the principal and four department meetings and activities hosted by the Backbone Teachers with the non-Backbone Teachers involved respectively from each of the two schools to obtain the interaction among these three groups of participants. The researcher also collected artifacts and documents that helped to develop the context that surrounded each participant.

In addition to the data from regular sources including interviews, observations, and documents, this study adopted the shadowing method to obtain data. From the perspective of qualitative method, Quinlan (2008) had an explicit definition for shadowing:

Shadowing entails a researcher closely following a subject over a period of time to investigate what people actually do in the course of their everyday lives, not what their roles dictate of them. Behaviours, opinions, actions and explanations for those actions are reflected in the resulting thick, descriptive data. (p. 1480)

The researcher shadowed the two Backbone Teacher participants in each school to understand their perspectives about being a teacher leader. The researcher closely followed each Backbone Teacher participant for a week and obtained vast first-hand, detailed data generated from shadowing related to the Backbone Teachers' view of their work and the surrounding conditions.

Data Sources

The purpose of the study was to explore the roles and impact of Backbone Teachers as teacher leaders within the conditions that might support or challenge the development of their leadership in public middle schools in Mainland China. It was important to select participants diversely from the groups of Backbone Teachers, non-Backbone Teachers, and principals in the schools with different school environments because the researcher sought to understand further the interaction among these groups. The research site and participants were both purposefully selected because purposeful sampling “leads to selecting *information-rich cases* for study in depth” (Patton, 2002, p. 46, italics in the original).

Site Selection

The research sites were two public middle schools both located in the QP District in HA City in Mainland China. All of the names in the study that refer to the schools, cities, district, and participants were pseudonyms. In this study, deviant case sampling was used (Patton, 2002) to identify the two public schools as examples of a high-performing school and a low-performing school. Using deviant case sampling allowed the researcher to see the influences of different

schools' conditions on the development of teacher leadership and then to compare and contrast these similarities and differences. The following criteria were used to select the schools for this study:

- The selection of a high-performing school and a low-performing school was in accordance with the local educational administrative rating system, which was based on the 2011-2012 Unified Public School Entrance Examination scores.
- Both of the schools should be located in the same school district in the researcher's hometown, HA City, so that the research study would be feasible.
- Both of the schools had implemented strategic plans to develop Backbone Teachers as well as the new curriculum reform, which required Backbone Teachers to take the lead in teaching the new curriculum.

The compulsory education in China includes only elementary and middle schools. The middle school provides an essential foundation for students to be able to enter a better ranked high school that in turn, will make attending a better university possible. Hence, the issue of teacher quality in middle schools is of importance to schools and communities. Therefore, two middle schools as the research sites were chosen to study Backbone Teachers.

There are 8 public school districts comprised of 602 public schools including 404 elementary schools, 155 middle schools, and 43 high schools in HA City in Mainland China, in which the QP District operated 23 public schools. During the 2011-2012 school year, the Department of Education in HA City reported that the HA City Public School System served 597,000 students supported by 40,093 teachers, in which the QP District served 32,560 of those students supported by 1,972 teachers. In the QP District, there were 11 elementary schools (grade 1-6), 9 middle schools (grades 7-9), and 3 high schools (grades 10-12). Table 3.2 shows

the basic data of schools in the QP District compared with the entire HA City Public School System.

Table 3.2

School Data Comparison during the 2011-2012 School Year

	QP District			HA City		
	Schools	Students	Teachers	Schools	Students	Teachers
Elementary	11	20070	940	404	304,000	19,700
Middle	9	8029	638	155	186,000	13,700
High	3	4461	394	43	107,000	6,693
Total	23	32,560	1972	602	597,000	40,093

The top elementary school, top middle school, and top high school in HA City were all located in the QP District, based on the annually unified school entrance examination scores in the whole HA City Public School System. Since 2002, all the public schools in the QP District have begun to implement the new curriculum reform, such as changing textbooks, adjusting curriculum, developing school-based curriculum, and sending more Backbone Teachers to attend the new curriculum reform training programs. Therefore, the top middle school in the QP District, KM Middle School, as a high-performing school, which met all the criteria for site selection, was chosen as one research site for this study.

SY Middle School, also located in the QP District, as a low-performing school, was chosen as another research site because the school rules and policies in SY Middle School were very similar to those in KM Middle School. With the purpose of improving all schools, in 1992, the Department of Education in HA City enacted a policy to form a partnership between a high-performing school and a low-performing school to assist the low-performing school in making progress with the help of a high-performing school. Fortunately, SY Middle School was

assigned KM Middle School as its partner from 1992 to 1998. During that period, KM Middle School constantly sent experienced teachers to SY Middle School to coach teachers, to share lesson plan models, to examine papers and subject assignments, and to conduct professional development projects together. SY Middle School apparently learned a lot from KM Middle School. The rules and regulations related to professional development and instructions such as mental programs, lesson plan study meetings, department teaching and research activities, monthly examinations, and school teaching competitions were very similar in both KM Middle School and SY Middle School.

Although SY Middle School was improving in some areas, the students' achievement was just passable compared to other schools in the QP District and much lower compared to KM Middle School. The average scores in 2011 on the Unified High School Entrance Examination for SY Middle School were 530.57, while the scores averaged 697.36 for KM Middle School, 519.17 for the QP District school system, and 513.21 for the whole HA Public Middle School System. Based on the variable of average scores, SY Middle School ranked 4th out of the 9 schools in the QP District and 33rd out of 155 schools in HA City. Table 3.3 illustrates the student achievement data on the 2011 Unified High School Entrance Examination for both KM Middle School and SY Middle School compared with data for the entire public school system in the QP District and in HA City.

Table 3.3

Student Achievement Data Comparison during the 2011-2012 School Year

Student Achievement	KM Middle School	SY Middle School	QP District	HA City
Average Scores	697.36	530.57	519.17	513.21
Ranking	1st place out of 9 middle schools in the QP District;	4th place out of 9 middle schools in the QP District;		
	1st place out of 155 middle schools in HA City	33rd place out of 155 middle schools in HA City		

Sample Selection

Two Backbone Teachers and two of their teaching colleagues, as well as one principal from each school were purposefully chosen as participants in this study. In total, there were 10 participants, including 8 teachers and 2 principals respectively from KM Middle School and SY Middle School in the QP District in HA City. Developing a set of criteria is essential in purposeful sampling (Merriam, 1998). There were three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—from KM Middle School and SY Middle School in this study.

Selected teacher participants met the following criteria: (1) participants with the title of Backbone Teachers taught Chinese, Mathematics, and English in these schools, and their counterpart participants, non-Backbone Teachers, were selected for teaching identical subjects; (2) Backbone Teacher participants and non-Backbone Teacher participants shared the same office; and (3) the Backbone Teachers were recommended to the researcher by the principals at the two school sites, KM Middle School and SY Middle School.

Chinese, Mathematics, and English are core courses for Chinese middle school teachers, which are also the main subjects included in the high school entrance examination. Teachers teaching core courses were usually engaged in more curricular and instructional activities in the school compared to teachers of other subjects. Selecting participants teaching core courses could increase opportunities to reflect the role of Backbone Teachers as teacher leaders and the interaction between Backbone Teachers and non-Backbone Teachers in school activities.

The Backbone Teacher participants in this study were selected based on their principals' recommendations. The recommended Backbone Teachers assumed school leader positions such as the Department Chair, the Subject Chairperson of one specific grade, and the school supervisor. Furthermore, the recommended Backbone Teachers all earned many honorable titles related to curriculum and instruction such as the Academic Leader, the Teaching Master, and the Teaching Expert.

To capture more interaction among the Backbone Teachers and their teaching peers, the non-Backbone Teachers teaching the same subjects and sharing the same office with the recommended Backbone Teachers were selected. Similarly, the principals communicated with the non-Backbone Teachers and they demonstrated their willingness to participate in the study. Unlike in the United States, in Mainland China, students usually do not change classrooms, but instead, the teachers are mobile and go to different classrooms to teach. Thus, teachers in Mainland China, like administrators, always have independent offices separate from the classrooms.

In this study, at KM Middle School, Mr. Shen, as a Backbone Teacher participant, and Ms. Han, as a non-Backbone Teacher participant, shared the same office in the Mathematics Department; while Ms. Gen, as a Backbone Teacher participant, and Ms. Hu, as a non-Backbone

Teacher participant, shared the same office in the English Department. In SY Middle School, Mr. Li, as a Backbone Teacher participant, shared the office with Mr. Ming, as a non-Backbone Teacher, in the Chinese Department, while Mr. Wang, as a Backbone Teacher, shared the office with Mr. Yang, as a non-Backbone Teacher, in the Mathematics Department.

For this study, the courses taught by teacher participants covered all the core courses—Mathematics, Chinese, and English—representing all the middle school grade levels in China—grade 7, grade 8, and grade 9. The four Backbone Teacher participants all assumed certain positions, and had some honorable titles, while the four non-Backbone Teacher participants had no positions or titles. The Backbone Teachers teaching core courses were chosen based on their principals’ recommendations, while the non-Backbone Teachers were selected, because they taught the same courses and shared the same offices with the recommended Backbone Teachers. Table 3.4 shows the collective profiles of the principals; Table 3.5 shows the collective profiles of the teacher participants from KM Middle School; and Table 3.6 show the collective profiles of the teacher participants from SY Middle School.

Table 3.4

Principal Participant Profiles

School	Name	Gender	Part-time teaching Subject	Part-time teaching Grade	Years in Education		
					Current Position	Admin.	Total
KM MS	Zhu	Male	Geography	8	8	10	20
SY MS	Xu	Male	Politics	7	4	20	30

Note. MS=Middle School

Table 3.5

Teacher Participant Profiles in KM Middle School

	Name	Gender	Grade	Subject	Years of teaching	Position	Most honorable titles	Office Shared
BT	Shen	Male	8	Math	12	Math Dept. Chair; School Supervisor	City -Level Academic Leader	No.1 Math Dept. office for Grade 8
BT	Gen	Female	8	English	23	English Chair -person for Grade 8; School Supervisor	City -Level Teaching Master	English Dept. office for Grade 8
Non -BT	Han	Female	8	Math	11	None	None	No. 1 Math Dept. office for Grade 8
Non -BT	Hu	Female	8	English	4	None	None	English Dept. office for Grade 8

Note. MS=Middle School; BT=Backbone Teacher; Non-BT=Non-Backbone Teacher.

Table 3.6

Teacher Participant Profiles in SY Middle School

	Name	Gender	Grade	Subject	Years of teaching	Position	Most honorable titles	Office Shared
BT	Li	Female	7	Chinese	10	Deputy Chinese Dept. Chair; Chinese Chair -person for Grade 7	District -Level Teaching Expert	No. 1 office for Grade 7

	Name	Gender	Grade	Subject	Years of teaching	Position	Most honorable titles	Office Shared
BT	Wang	Female	7	Math	7	Math Chair -person for Grade 9	District -Level Teaching Expert	Math Dept. office
Non -BT	Ming	Male	9	Chinese	6	None	None	No. 1 office for Grade 7
Non -BT	Yang	Male	7	Math	7	None	None	Math Dept. office

Note. MS=Middle School; BT=Backbone Teacher; Non-BT=Non-Backbone Teacher.

The three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—were informed of the purpose of the study, the procedures, the potential risks and benefits, the conditions for voluntary participation, confidentiality, and the additional contacts for reference. After they agreed with all of these items, the three groups of participants were asked to sign two participant consent forms (See Appendix B), one was kept by the researcher, and the other was offered to the participant for their records. In addition, demographic sheets (See Appendix C) were given to participants to fill to obtain their personal information, including name, age, subjects taught, teaching experience, positions, certifications, and training programs attended in past three years. After that, data collection began.

Data Collection

The use of multiple data-collection methods can “contribute to research trustworthiness and verisimilitude, or sense of authenticity” (Glesne, 2011, p. 48). In this study, the data were collected through interviews, observations, qualitative shadowing methods, and artifacts and documents, in accordance with the study’s pursuit of participants’ perspectives of the

development of Backbone Teachers as teacher leaders in Mainland China. Table 3.7 summarizes the four data collection methods used in this study.

Table 3.7

Data Collection Methods

Data Collection Methods	Description
Interviews	Each participant had an approximately two-hour semi-structured interview guided around the interview question guides in their schools.
Observations	Regular administrative meetings hosted by the principal Weekly lesson study meetings led by the Backbone Teacher Weekly research and teaching activities led by the Backbone Teachers
Shadowing methods	The researcher closely following the four Backbone Teacher participants each for one week outside their classroom environments to capture their work as teacher leaders. Notes about questions during shadowing were written down to ask the participants at a later time.
Artifacts and documents	The documents related to teacher leadership and Backbone Teachers; The context documents related to the schools and the participants; Memos reflecting thoughts of the researcher during the process of data collection and analysis.

Interview

Interviewing allows researchers the ability to enter into participants’ perspectives to gather their stories and construct meanings (Patton, 2002). There are three types of interviews—unstructured, semi-structured, and structured (Glesne, 2010). Compared to the other two types of interview, semi-structured interviews can make sure all of the relevant topics are covered in a limited time (Patton, 2002) and allow for some questions that “might emerge in the course of interviewing and might add to or replace pre-established ones” (Glesne, 2011, p. 102).

Therefore, to gain personal accounts from the three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—in a limited time, the semi-structured interviews were used and centered on the interview question guides for the individual groups of participants provided in Appendix A. Based on the research questions, the questions included in the interview guides for the three groups of participants were open-ended and referred to the participants’ perspectives on their individual practices and their understandings of teacher leadership (see Table 3.8). The interview question guide was provided to each participant prior to the interview to give them opportunities to reflect on the question and prepare their answers in advance.

Table 3.8

Key Questions from Interview Guide Directly Aligned with Research Questions

Research Questions	Questions from the Interview Guides		
	For Backbone Teachers	For Non-Backbone Teachers	For Principals
What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?	Please describe your job as a Backbone Teacher.	Please the Backbone Teachers’ job you saw.	Please describe the Backbone Teachers’ job in your school
	What should Backbone Teachers do? What should be their roles and functions?	What should Backbone Teachers do? What should be their roles and functions?	What should Backbone Teachers do? What should be their roles and functions?
What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?	How long have you been as a Backbone Teacher? And how did it happen?	Do you want to become a Backbone Teacher? How?	How can a teacher become a Backbone Teacher?
	What kinds of successes / problems have you experienced as a Backbone Teacher?		

Research Questions	Questions from the Interview Guides		
	For Backbone Teachers	For Non-Backbone Teachers	For Principals
What were the impact of Backbone Teachers as teacher leaders on teacher professional development and school improvement?	How has becoming a Backbone Teacher changed you? Has your relationship with your colleagues / administrators changed? How?	Do you want to become a Backbone Teacher? Why?	Please give them (the Backbone Teachers) an overall evaluation.

The interview lasted approximately two hours for each participant. Follow-up interviews with participants were not planned to occur unless stray categories emerged from the data and required further information or elaboration from specific participants. All participants agreed to possible follow-up interviews, but no follow-up interviews were needed. The interviews with the teacher participants from the two schools were conducted in the school conference room arranged by the principals to minimize interruptions; while the interviews with the two principals were conducted in their own offices in the school.

With the participants' permission, two digital recorders were used to record the conversations to ensure no data were lost due to possible equipment malfunction or failure. The researcher first conducted the interviews and took notes, capturing salient points and notable quotes for future analysis. And then, the researcher transcribed the interviews word by word soon afterward and replaced all direct identifiers on the audiotapes with pseudonyms. After that, the transcriptions were sent to the participants for accuracy checks in case some additions or modifications were needed. And finally, the audio recordings were erased in accordance with the guidelines approved by the University of Georgia Institutional Review Board (IRB).

Observation

Patton (2002) described that through observation, in addition to better understanding the context, researchers are allowed to participate in open, discovery oriented and inductive inquiry on-site and learn things that participants were either unconscious of or unwilling to talk about in the interview. To capture how the Backbone Teachers exerted their leadership in the Chinese middle school context, observations were conducted by the researcher at the research sites. In both KM Middle School and SY Middle School, there were regular administrative meetings hosted by the principal, weekly lesson study meetings led by the Backbone Teachers, and weekly teaching and research activities both organized by the Backbone Teachers. Therefore, observations were performed during those regularly scheduled formal meetings and activities. Table 3.9 and Table 3.10 respectively show the detailed information about those observations in KM Middle School and SY Middle School.

Table 3.9

Observations in KM Middle School

Meetings and Activities	Participants	Topics	Date and Day	Length of Observation
A regular administrative meeting	Mr. Zhu (the principal) and other administrators	Reports of school issues, plans, and decisions	May 29, 2012 (Monday)	2 hours (9 am-11 am)
A weekly lesson study meeting	Mr. Shen (BT), Ms. Han (Non-BT), and other teachers in the Grade-8 Math Group	Collective Lesson planning for Grade-8 Math	May 29, 2012 (Monday)	2 hours (5:30 pm-7:30 pm)
A weekly teaching and research activity	Mr. Shen (BT), Ms. Han (Non-BT), and other teachers in the Math Dept.	Observing and Discussing a math model class	May 31, 2012 (Thursday)	2 hours (1:30 pm-3:30 pm)

Meetings and Activities	Participants	Topics	Date and Day	Length of Observation
A weekly lesson study meeting	Ms. Gen (BT), Ms. Hu (Non-BT), and other teachers in the Grade-8 English Group	Collective Lesson planning for Grade-8 English	June 4, 2012 (Monday)	2 hours (5:30 pm-7:30 pm)
A weekly teaching and research activity	Ms. Gen (BT), Ms. Hu (Non-BT), and other teachers in the English Dept.	Learning Experience sharing	June 5, 2012 (Tuesday)	2 hours (1:30 pm-3:30 pm)

Note. BT=Backbone Teacher; Non-BT=Non-Backbone Teacher.

Table 3.10

Observations in SY Middle School

Meetings and Activities	Participants	Topics	Date and Day	Length of Observation
A regular administrative meeting	Mr. Xu (the principal) and other administrators	Reporting school issues, plans, and decisions	June 11, 2012, (Monday)	2 hours (9 am-11 am)
A weekly lesson study meeting	Ms. Wang (BT) and other teachers in the Grade-9 Math Group	Collective lesson planning for Grade-9 Math	June 11, 2012, (Monday)	2 hours (5:30 pm-7:30 pm)
A weekly teaching and research activities	Mr. Wang (BT), Mr. Yang (non-BT), and other teachers in the Math Dept.	Discussing on the monthly Math test and a math model class	June 14, 2012, (Thursday)	2 hours (1:30 pm-3:30 pm)
A weekly lesson study meeting	Mr. Li (BT), Mr. Ming (non-BT), and other teachers in the Grade-7 Chin. Group	Collective Lesson planning for Grade-7 Chinese	June 18, 2012 (Monday)	2 hours (5:30 pm-7:30 pm)
A weekly teaching and research activities	Ms. Li (BT), Mr. Ming (non-BT), and other teachers in the Chinese Dept.	Observing and discussing a Chinese model class	June 19, 2012 (Tuesday)	2 hours (1:30 pm-3:30 pm)

Note. BT=Backbone Teacher; Non-BT=Non-Backbone Teacher.

Observations were recorded in an observation log (see Appendix D) noting how Backbone Teachers exerted their leadership during their interaction with the non-Backbone Teachers or with the principals on site, with a description of the activities the participants took part in during the observation period. Field notes were expanded on soon after each encounter. The researcher engaged in self-reflection about the observations and the interviews as well. These self-reflections were noted as well.

Shadowing

Shadowing is “a research technique which involves a researcher closely following a member of an organization over an extended period of time” (McDonald, 2005, p. 456). As a qualitative method to capture behaviors and perspectives, shadowing is “related to, but also distinctive from, both participant and non-participant observation” (Gilliat-Ray, 2011, p. 471). Shadowing is distinct from participant observation because it does not require the researcher to acquire a membership role, while it is distinct from non-participant observation because it produces a relationship between the research and the observed (Gilliat-Ray, 2011). In addition, shadowing often blurs the boundaries between different methods. For example, it usually incorporates both interviewing and observation.

In this study, the researcher shadowed in total four Backbone Teachers each for one week outside of their classroom environments in KM Middle School and SY Middle School. The principals both gave the researcher access to any place in the school at any time after the researcher gained the permission to shadow the Backbone Teachers. The researcher waited in the Backbone Teachers’ office and shadowed them once they came back from their classes. Normally, the working time for Backbone Teachers in both schools was from Monday to Friday, from 7:30 am to 5:30 pm. However, in many instances, the researcher had to stay late because

the Backbone Teachers did so. In addition, the shadowing time on Monday was special: from 1:30 pm to 7:30 pm because there was an administrative meeting in the morning and a lesson study meeting in the evening on that day.

Other than the administrative meetings in each school, the eight formally observed meetings and activities in the two schools highlighted in Table 3.9 and Table 3.10 all occurred during the same period of shadowing the four Backbone Teachers. In addition, over the course of shadowing the Backbone Teachers, the researcher followed the Backbone Teachers to observe their normal activities, such as their meetings with principals, their attendances of other colleagues' classes, their supervision of their colleagues, and their extra hour work to grade assignment and to design examination papers, and so on. Table 3.11 shows the course for shadowing the four Backbone Teachers.

Table 3.11

The Course of Shadowing the Backbone Teachers

BT Participants	Date	Time	Location
Mr. Shen	5/28/2012-6/1/2012	Depends on the BTs' time schedule.	KM MS
Ms. Gen	6/4/2012-4/6/2012	Normally, from Tuesday to Friday, it	KM MS
Ms. Wang	6/11/2012-6/15/2012	was from 7:30 am to 5:30 pm. And on	SY MS
Ms. Li	6/18/2012-6/22/2012	Monday, it was from 1:30 pm to 7:30 pm.	SY MS

Note. BT=Backbone Teacher; MS= Middle School

When shadowing the Backbone Teachers, the researcher often asked “what,” “how,” and “why” questions on site, and the participants answered those questions quickly and even provided more illustrations to amplify their responses. Undoubtedly, it enabled the participants to provide suitable answers in a specific context as well as to make the researcher triangulate the validity of the data. Just like McDonald (2005) mentioned, shadowing could produce first-hand,

detailed data rather than individuals' accounts of their roles in an organization and the possibility of an especially holistic view of the life and work of a particular individual. In this study, filed notes were taken to record detailed contexts and shadowed the participants' conversations and behaviors on site as much as possible. And field notes were further expanded at the end of the day during shadowing period.

Artifacts and Documents

Interview data, shadowing data, and observation data are usually considered as raw materials, while books and articles on teacher leadership and Backbone Teachers written by other researchers, artifacts and documents detailing the research context, and methodological notes, such as research memos, usually serve as “secondary sources” (McCulloch, 2004, p. 30) to be collected and analyzed. The literature documents were used to form the theoretical framework and compared to actual findings in the study. A series of context documents about the schools and participants were collected and reviewed, including the basic school information, such as school reputation, history, rankings, class schedules, etc.; school policies and plans for teachers' evaluation and promotion, teacher professional development activities, curricular and instructional activities; and school meeting agendas and notes. Table 3.12 shows the detailed context artifacts and documents for the context of the study. All of these documents were useful in providing a holistic and concrete background for this study.

Table 3.12

Context Artifacts and Documents for the Study

Context artifacts and documents	School rankings and scores for the 2011 Unified High School Entrance Examination in the city; School basic information from the website and the school documents; Criteria of Backbone Teacher selection; Meeting agendas and meeting notes;
---------------------------------	---

Context artifacts and documents	Class schedules for all participants; Class observation instruments; Notices of professional development programs at different levels; School policies for teacher’s pay, development, evaluation, and promotion; School plans and procedures for research projects, curriculums, public model classes, teaching competitions, and instructional activities.
---------------------------------	--

Furthermore, the memos were written to record insights gained from data collection and data coding. During the interviews, observations, and the shadowing, self-reflections emerged and documented immediately as the memos. In the coding process, memos were written to help explore new ideas and possibilities, broaden categories, and clarify thoughts. These memos were treated as data, sorted and integrated along with the interview, observation, and shadowing data in the analysis process (Charmaz, 1994).

Data Analysis

The constant comparative method was adopted to conduct the data analysis for this study. Although constant comparison analysis grew out of grounded theory (Glaser, 1994; Glaser & Strauss, 1967), it is usually used as an analytic coding strategy as well as a mode of inquiry to “build understandings across phenomena, experiences, and/or cases while embracing a theoretical stance that acknowledges subjectivity and multiple realities, enacts ethical practices, and derives social action” (Butler-Kisber, 2010, p. 26). Therefore, although this case study research did not employ grounded theory as a research methodology, the constant comparative method was used to make within-case analysis and cross-case analysis.

As stated by Glaser and Strauss (1967), there are four stages of constant comparative analysis: (a) comparing incidents, (b) integrating categories and their properties, (c) delimiting the theory, and (d) writing the theory. This study strictly followed these four stages. With the research questions as the guiding framework, data coding was conducted to develop categories,

patterns, and themes. First of all, for each participant, data from transcript, field notes of observations and shadowing experiences, and documents were all combined together for further analysis. And then, the theoretical findings of individual participants in one group were compared to make a within-case analysis. After fully understanding the individual cases, all three cases including Backbone Teachers, non-Backbone Teachers, and principals were combined and aggregated thematically. Later, the key themes for this study were constructed based on the framework. In addition, memos were written to record the reflections such as confusions, doubts, and questions during the process of data analysis and they were treated as data as well to be processed iteratively.

Take one participant data as an example. Table 3.13 illustrates the process of data analysis for an interview transcript of the Backbone Teacher, Mr. Shen. The analysis process in this study started with open coding his interview transcript and field notes of the observation and shadowing experiences (see Table 3.13, First Iteration). The data were broken apart into incidents corresponding to natural breaks in the flow of description in the transcript and field notes. Then similar incidents that told what was happening in the research setting were grouped together and labeled, which resulted in the preliminary categories.

After all the preliminary categories were constructed, properties of those categories were built (see Table 3.13, Second Iteration). Further analysis included refining the incidents, searching for common themes, and integrating the diverse properties and categories. As different categories and their properties tended to become integrated through constant comparison, the researcher began to make theoretical sense of each comparison.

The Third Iteration (see Table 3.13) shows the stage of theory development. Through reduction, including collapsing similar or overlapping categories and discarding the irrelevant categories or properties, theoretical findings within a smaller set of higher level abstract concepts were developed.

Table 3.13

Code Mapping: Three Iterations of Analysis (to be read from the bottom up)

Research questions 1, 2 and 3		
RQ.1 Roles	RQ2. Conditions	RQ3.Impact
Third Iteration: Application to data set		
The common and different areas between espoused and practical roles of BTs as TLs	How to promote a positive environment for BTs' development as TLs	Co-existed positive and negative impact of teacher leadership
Second Iteration: Pattern variables		
1A. the practical role 1B. the espoused role	2A. the supporting conditions 2B. the challenging conditions	4A. impact on BTs 4B. impact on peers 4C. impact on students 4D. impact on the school
First Iteration: Initial codes/surface content analysis		
1A. disseminate information 1A. share ideas 1A. take care of curriculum, and textbooks, lesson plan 1A. schedule plans and meetings 1A. initiate new things 1A. lead meetings and activities 1A. make team decision 1A. make recommendation 1A. observe peers' classes 1A. supervise peers' teaching 1A. demonstrate model classes 1B. see the whole picture 1B. be a liaison/intermediary 1B. be in charge 1B. be a role model 1B. be a good content person 1B. own leadership skills 1B. be an organizer 1B. good at interpersonal skills	2A. principal's support 2A. respect and trust from peers and kids 2A. the collaborative climate 2B. overloaded work 2B. time management 2B. work stress 2B. interpersonal conflicts 2B. lack of training for being a leader	4A. interpersonal skills, leadership skills 4A. more opportunities to attend PD programs, win titles, and gain promotion 4A. self-confidence and recognition 4A. self-reflection 4A. more respect from peers 4 A. subtle relationships with peers (tough, envious, closer/distanced) 4A. closer relationships with administrators 4B. help and support peers 4B. promote professional development for peers 4C. student success 4D. the model activity

Note. RQ=Research question; BT=Backbone Teachers; TL=Teacher leader; PD=professional development.

Trustworthiness

In qualitative studies, it is essential that trustworthiness is established (Merriam, 1998). Creswell (1998) described eight procedures that contributed to the trustworthiness of a qualitative study, including prolonged engagement and persistent observation, triangulation, peer review and debriefing, negative case analysis, clarification of research bias, member checking, rich, thick description, and an external audit. This study adhered to all of these procedures to increase its trustworthiness. .

Prolonged engagement and persistent observation. Prolonged engagement and persistent observation denotes the extended time in the field in which the researcher is able to develop trust, learn the culture, and check out his or her hunches (Creswell, 1998). The shadowing method adopted in the study enabled the researcher to deeply immerse in the world of the participants, to observe participants working for a longer period of time, to build relationships with participants, and to learn more about the participants' circumstances. By doing this, a holistic perspective and enhanced context sensitivity was formed, helping shape analytic insights and increasing theoretic sensitivity.

Triangulation. The triangulation design includes the use of multiple data collection methods, multiple sources, multiple investigators, or multiple theoretical perspectives (Glesne, 2010). This study collected data from interviews, observations, shadowing experiences, and documents. The participants were from three different groups, including the Backbone Teachers, non-Backbone Teachers, and principals. The study used a teacher leadership perspective to examine Backbone Teachers' development, which was a welcome perspective in the Chinese scholarly literature and which aided in triangulating the pre-established findings on Backbone Teachers in Mainland China.

Peer debriefing and external audit. Peer debriefing is a process of communicating with peers to provide external reflection and input on the researcher's work, while an external audit is an outside person's examination of the research process and product through "auditing" the researcher's field notes, research journal, analytic coding schemes, etc. (Creswell, 1998). For this study, my major professor reviewed the process of data collection and data analysis. Valuable feedback on how to conduct research was gleaned and supported more robust data collection protocols.

Negative case analysis. Negative case analysis means to search consciously for negative cases and disconfirming evidence so that the researcher can refine his or her hypotheses (Creswell, 1998). In this study, the participants were selected from three groups within different school settings. Obviously, the comparisons of different contexts and different groups of participants provided different perspectives on the development of Backbone Teachers as teacher leaders, which typically reflected this idea of negative case analysis.

Clarification of research bias. Qualitative research always requires the researcher to reflect his or her own subjectivity on how research will control for bias. The research bias and how to address it were discussed in the limitations section. Any propensity toward bias was monitored throughout the research process.

Member checking. Member checking is taking data, findings, and interpretations back to the participants to make sure the researcher is representing them and their ideas accurately (Creswell, 1998). After each round of interviews, the transcriptions were shared with the participants, and adjustments were made based on the participants' feedback.

Rich, thick description. Rich, thick description can help readers of a study enter the research context, understand the findings of the study, and assess the transferability of the findings to other situations (Creswell, 1998; Lincoln & Guba, 1985). Detailed information about the study contexts, data collection, and data analysis were provided. Participants were directly quoted to illustrate the theoretical categories; therefore, readers could form their own conclusions about the credibility of the constructed theories.

Limitations

There were possible limitations to this study. First, the study was limited by qualitative bias that is inherent to this method. The weakness of the qualitative method lies in generalizability (Patton, 2002). The findings gained from this study could only speak to the perceived understandings of the participants, which would provide lessons for further studies related to teacher leaders in China, but could not be a generalization aimed at the entire population of teacher leaders.

Secondly, the study might be limited in its depth and accuracy, because the participants might not be open and honest in their responses during the interviews and the language translation might cause missing information or misunderstandings. The participants could be afraid of retaliation for sharing something they are not supposed to share, or they might speak about superficial issues because of the researcher's position as an outsider. The confidential procedures might alleviate any possible hesitance about being honest in the interview, and building rapport with the participants might enable them to discuss some issues in depth with the researcher.

As for the language issue, this study was conducted in Mainland China, so the language which was used in the interviews and meetings was Chinese. The dissertation is required to be written in English; however, the transcription needed to be translated and the theoretical findings needed to be written in English. Because of cultural and linguistic differences between China and the United States and the level of my English proficiency, the translation might limit the depth and accuracy of the study. Therefore, a translator was invited to review my translation and American peers and the major professor were asked to help edit words and polish the writing. The major professor ensured that certain norms, values, and constructs related to teacher leadership in China were clarified in the data presentation and analysis.

Third, this study might be limited by the researcher's lack of relevant experience. The researcher has never worked in Chinese middle schools. The lack of experience might, to a certain extent, constrain the researcher's analytic insights and theoretical sensitivity to the interview and observation data. However, the researcher's knowledge of the literature and conducting this study in the field might compensate for the lack of relevant experience in Chinese middle schools. However, the lack of experience in Chinese middle schools could also be an advantage for this study because the researcher would have a fresh, relatively objective perspective, free from prejudices or other pre-conceived notions formed by relevant experience in schools.

The next chapter, Chapter 4, describes the context of the study including the profile of the district, the schools, and the participants. After presenting the context of this study, Chapter 5 and Chapter 6 respectively provide a within-case analysis and a cross-case analysis of the data.

CHAPTER 4

CONTEXT OF THE STUDY

Introduction

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of Backbone Teachers, non-Backbone Teachers, and principals, and the interactions among these three groups were described and analyzed to understand better the role and impact of Backbone Teachers as teacher leaders in public middle schools in Mainland China. To achieve these objectives, the guiding research questions included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teachers' professional development and school improvement?

This chapter describes the context of the study including the profile of the district, the schools, and the participants.

To further define this study, one high performing middle school, KM Middle School, and one low performing middle school, SY Middle School, in the same district, QP, in HA City in Mainland China were chosen as research sites. All of the names that refer to the schools, cities, district, and participants were replaced with pseudonyms to protect the confidential nature of the

study. The participants from these two schools included four Backbone Teachers, four non-Backbone Teachers, and two principals. This chapter is important as its content gives the reader the opportunity to learn about the context of the study and the profiles of the school district, schools, and participants.

Context of the Study

Since the research took place in Mainland China, several background characteristics of the Chinese public school system, which are different from the typical American public education system, need to be discussed. Unequal educational resource distribution and test-oriented environments are known to be two characteristics of the Chinese public educational system over the past few decades. These two issues have gradually drawn Chinese educators' attention, which further caused a new series of basic educational reforms in Mainland China during the 2000s.

As for the unequal distribution of educational resources, generally speaking, the urban schools exceed the rural schools, while key schools exceed the average schools in the urban areas of Mainland China. One critical factor that causes such an unequal situation is the insufficient educational resources spread among a large number of schools in Mainland China. Considering the fact that sufficient educational resources are exceedingly lacking, the Chinese government decided to concentrate its limited resources on a preponderant group of public K-12 schools to develop these key schools in the 1960s. In fact, most of those schools were located in urban areas. Therefore, on average, the urban schools have always gained more and richer educational resources (better students, more experienced teachers, better equipment, and adequate funding) than rural schools over the past few years in Mainland China. Similarly, key schools have

gained more resources than average schools in the urban district. Gradually, the urban schools exceeded the rural schools, while key schools exceeded the average schools in Mainland China.

The strong test scores earned by students are the most important evaluation indicator for signifying higher-performing students, teachers, and schools. Of all of the varieties of examinations, the unified entrance examination is the most important one in the public school system of Mainland China. Take middle school as an example; each middle school has two significant unified entrance examinations. Before students enter middle school, they need to take a standard middle school entrance examination. When they are going to graduate from middle school, they need to take a standard high school entrance examination. The results of the high school entrance examination directly determine whether a student will get into a good high school, whether the middle school teachers will get an annual bonus, and whether the middle school will be considered a high-performing school. The scores from the middle school entrance examination is another decisive factor, which controls the quality and quantity of enrolled students, which is closely related to the school enrollment policy, explained in detail in the *Profile of the School Districts* section of this chapter.

The Decision on the Reform and Development of Basic Education, approved in 2001 by the State Council of the People's Republic of China, launched a basic educational reform aimed at a quality-oriented education instead of a traditional test-oriented education (Minister of Education (MOE), 2002a). In the same year, a new round of curriculum reforms, with the same theme of promoting quality-oriented education, formally began in Mainland China. Compared with the old curriculum, the new curriculum emphasized: 1) the attainment of a three-dimension curriculum goal—the combination of knowledge and skill, process and method, and emotion and value instead of the traditional textbook knowledge; 2) the integration and diversity of the

curriculum, especially for elective subjects such as the arts, physical education, and health education, which are always overlooked in the traditional curriculum structure; 3) curriculum closely related to practical living and the latest technology instead of the difficult, complicated, rare, and outdated curriculum content; 4) student-centered learning rather than teacher-centered learning across the curriculum; 5) the diversity and usefulness of new curriculum textbooks in place of completely unified curriculum textbooks; 6) a comprehensive evaluation system for students, teachers, and curriculum development; 7) a three-level mutual management of central government, local government, and the school; 8) a training program for teacher improvement, and; 9) the mutual engagement of teachers, experts, and communities to carry out the new curriculum (MOE, 2001). To implement the new curriculum, the curriculum guidelines called for an increase in formal in-service education for teachers to serve new student learning demands for a quality-oriented education (MOE, 2001). Therefore, since 2002, many Backbone Teachers were selected to participate in in-service programs at different levels of professional development.

The National Education Reform and Development of Long-term Planning Programs (2010-2020) was released in 2010 (Xinhua News Agency, 2010). Equity and professionalization are the two main areas of this educational plan. To achieve the goal of equity, the central Chinese government plans to increase their educational investments to rural schools and to low-performing schools in remote provinces. The local Chinese government will ensure the uniformity of teachers' salaries with the same professional titles in different schools. School choice in school enrollment is strictly forbidden. To achieve the goal of professionalization, developing Backbone Teachers and principals through in-service training, academic exchanges,

and projects funded by the government will be continually implemented to form an effective and efficient group of instructional leaders.

Profile of the School District

This study took place in the QP District as one of eight public school districts located in HA City in Mainland China. During the 2011-2012 school year, the Department of Education in HA City reported that the HA City Public School System served 597,000 students supported by 40,093 teachers, in which the QP District served 32,560 of those students supported by 1,972 teachers. The QP District included 23 public schools in both urban and rural areas. Of these schools, there were 11 elementary schools (grades 1-6), 9 middle schools (grades 7-9), and 3 high schools (grades 10-12). Table 4.1 shows the basic data for schools in the QP District compared with the entire HA City Public School System.

Table 4.1

School Data Comparison during the 2011-2012 School Year

	QP District			HA City		
	Schools	Students	Teachers	Schools	Students	Teachers
Elementary	11	20070	940	404	304,000	19,700
Middle	9	8029	638	155	186,000	13,700
High	3	4461	394	43	107,000	6,693
Total	23	32,560	1972	602	597,000	40,093

In line with the principles of equity in the educational standards, yet considering the influence of the traditional enrollment policy based completely on entrance examination scores, the Department of Education in HA City implemented a modified *New Nearby School Enrollment Policy* to balance student resources as one of the educational initiatives for schools over the past three years. During the years of compulsory education (grades 1-9), it requires that

children must enroll in the nearby public school on the condition that they fail to earn the extra limited enrollment quota specifically assigned for key schools.

In addition to regular students enrolled based on the *Nearby School Enrollment Policy*, key schools were assigned the extra enrollment vacancies to select high-performing students based on the unified middle school entrance examination in HA City. The extra enrollment spots were extremely limited compared to the regular enrolled students in the key school; on average, the ratio was 1:10. There were only 7 key schools compared to the 559 schools in HA City, in which 1 elementary school and 1 middle school were located in the QP District. The key middle school in the QP District was a targeted school for this study. Table 4.2 shows the key school data in the QP District compared with data from HA City.

Table 4.2

Key School Data Comparison for 2011-2012 School Year

	QP District		HA City	
	Key Schools	Total Schools	Key Schools	Total Schools
Elementary	1	11	4	404
Middle	1	9	3	155
Total	2	20	7	559

School Profiles

This study took place in KM Middle School, representing a high-performing school, and SY Middle School, representing a low-performing school. These two middle schools were both located in an urban area of the QP District. The social economic status for the area where KM Middle School was located was better than the area where SY Middle School was located. The two schools were in the same district but with huge differences in their contexts, including the school’s history, building size, teacher quality, and student enrollment and achievement as

measured by specific tests administered at the beginning and ending of the middle school experience.

KM Middle School

KM Middle School first opened its doors to students in 1902, which made for a long history of over 100 years, and has always been considered the highest performing middle school, not only in QP District but also in the whole HA City public education system. Since 1953, KM Middle School has been approved as one of the key middle schools at the province-level and has progressed rapidly as a leading school with rich educational investments from departments of education at the province-level, city-level, and district-level. Therefore, in QP District and even in HA City, KM Middle School had the most advanced school equipment, a modernized environment, as well as the best teachers and more resources for students.

Until 2012, KM Middle School covered an area of 67,166 square meters, with 12 school buildings, including 5 standard teaching buildings and 2 multi-functional teaching buildings, 1 office building, 1 laboratory building, 1 library, 1 gymnasium, and 1 cafeteria. There were more than 60 standard classrooms and abundant subject specific classrooms. All of the classrooms were equipped with cable TV, an operator, loudspeakers, an exhibition booth, a platform, and the Internet.

Unlike the United States, in Mainland China, students usually do not change classrooms, but instead, the teachers are mobile and go to different classrooms to teach. Thus, teachers in Mainland China, like administrators, always have independent offices separate from the classrooms. In KM Middle School, the offices of teachers and administrators were both located in the office building. Teachers teaching the same subjects in the same grade were assigned the same office if the size of the office was large enough. If the office was not big enough, teachers

teaching the same subjects in the same grade were assigned several offices clustered together. For example, all 10 English teachers in grade 8 were working in a big office, while 10 Mathematics teachers in grade 8 were assigned 3 smaller offices next to each other.

In 2012, KM Middle School supported approximately 3,100 students in 52 classes from grade 7 to grade 9 with 200 faculty members. The percentage of teachers with bachelor's degrees or higher degrees in KM Middle School was 100%, in which more than 10% of the teachers had master's degrees, while the average percentage of middle school teachers with bachelor's degrees or higher degrees in the QP District was 62% and 69.6% for HA City. KM Middle School had an abundant number of Backbone Teachers with various titles and honors. For instance, until 2012, there were 9 teachers receiving national-level honors and 14 teachers receiving provincial-level honors, not to mention a large number of teachers who received city-level honors and district-level honors. Teachers in KM Middle School were extremely good at cultivating higher levels of student achievement, and for many years, the school had won awards for being an excellent teaching community.

Therefore, parents all wanted their children to go to KM Middle School. With limited spots, for many years before the implementation of the *New Nearby School Enrollment Policy* in 2008, only the students with higher scores on the Unified Middle School Entrance Examination in HA City would be given permission to enroll in KM Middle School. Since 2008, although 80% of the students enrolled in KM Middle School lived nearby, KM Middle School, as a key school in the city, still had the authority to select 20% of their students based on their high scores on the middle school entrance examination.

Although not all of the students enrolled in KM Middle School were high-performing students, since 2008, the achievements for the students at KM Middle School were, as usual, still ranked in first place among the 155 middle schools in the whole HA City Public School System because of the high scores, the highest individual total scores, and the most top 10 students' scores on the Unified High School Entrance Examination compared to other middle schools in HA City.

SY Middle School

SY Middle School was established in 1964. The school is located in a relatively poor area in the QP urban district. The school had not been performing well since its establishment, considering the fact that better schools were given priority for obtaining more and better high-quality educational resources. With the purpose of improving all schools, in 1992, the Department of Education in HA City enacted a policy to form a partnership between a high-performing school and a low-performing school to assist the low-performing school in making progress with the help of a high-performing school. Fortunately, SY Middle School was assigned KM Middle School as its partner from 1992 to 1998. During that period, KM Middle School constantly sent experienced teachers to SY Middle School to coach teachers, to share lesson plan models, to examine papers and subject assignments, and to conduct professional development projects together. SY Middle School apparently benefited a great deal from the partnership. As a result, the students' achievement was getting much better, and the teachers were gaining more experience than before the partnership. Furthermore, recently, educational resources had been furnished by the higher-level education administration, far more than before.

Until 2012, SY Middle School covered an area of 19,780 square meters, with 4 school buildings including 2 standard teaching buildings, 1 office building, and 1 multi-functional teaching building, which was still under construction. There were 25 standard classrooms. Compared to KM Middle School, the classrooms were equipped with the same resources except Internet access.

Administrators' offices were located in the office building, while teachers' offices were standard classrooms located in a different teaching building. Teachers were assigned to different offices based on three factors: teaching the same grade levels, the availability of offices, and teaching the same subject. In fact, in considering the small size of the school, for each grade, there were, at most, four teachers teaching the same subject. Therefore, there were always teachers who were teaching different subjects or different grade levels but sharing the same office. For example, five teachers teaching three different subjects in seventh grade were assigned the same office in the building where their students were having classes instead of a separate office building.

Until 2012, SY Middle School supported 890 students in 22 classes from grade 7 to grade 9 with 102 faculty members. The percentage of teachers with bachelor's degrees or higher degrees in SY Middle School was 49%, while the average percentage of middle school teachers with bachelor's degrees or higher degrees in the QP District was 62% and 69.6% for HA City. Many teachers in SY Middle School gradually developed into Backbone Teachers with various titles and received different kinds of honors. However, so far, the highest level of honor for the Backbone Teachers at SY Middle School was at the district-level.

SY Middle School had no authority to select students, since it was not a key school. Since 2008, when the *New Nearby School Enrollment Policy* was implemented, all the enrolled students in SY Middle School were students living in the nearby communities, which were not affluent compared to the district where KM Middle School was located. As for student achievement, the performance of SY Middle School was just passable. The average scores in 2011 on the Unified High School Entrance Examination for SY Middle School were 530.57, while the scores averaged 697.36 for KM Middle School and 513.21 for the entire HA Public Middle School System. Based on the variable of average scores, SY Middle School ranked 4th out of the 9 schools in the QP District and 33rd out of 155 schools in HA City.

Summary

A huge gap existed between KM Middle School and SY Middle School from the aspect of school history, building size, teacher quality, student enrollment, and student achievement. KM Middle School, as a key school with high scores, had a long history with a good reputation, received enough construction funds, hired high-quality teachers, had the authority to select part of their enrolled students based on their scores on the entrance examination, and produced the highest student achievement. Compared to KM Middle School, SY Middle School, as an ordinary small-scale public middle school which received much less funding for school construction and hired relatively low-quality teachers, could only enroll students living nearby, and produced relatively lower student achievement. Table 4.3 shows the detailed data comparison between KM Middle School and SY Middle School.

Table 4.3

Data Comparison between KM Middle School and SY Middle School

		KM Middle School	SY Middle School
School history and building size	Establishment year	1902	1964
	School area	67,166 square meters	19,780 square meters
	School building	12	4 including 1 building still under construction
	Numbers of student class	52	22
	Student numbers	3100	890
	Faculty members	200	102
Teacher quality	The percentage of teachers with bachelor's degrees or higher degrees	100%	49%
	Highest honor received for Backbone Teachers	National-level	District-level
Student enrollment and achievement	Student enrollment	80% nearby students and 20% self-selected students	100% nearby students
	Student achievement	1st place out of 155 middle schools in HA City with an average score of 697.36 on the Unified High School Entrance Examination	33rd place out of 155 middle schools in HA City with an average score of 530.57 on the Unified High School Entrance Examination

Participant Profiles

To better explore the experience and perspectives of Backbone Teachers, a total of 10 participants were selected from KM Middle School and SY Middle School for this study, including 4 Backbone Teachers, 4 non-Backbone Teachers, and 2 principals. All the participants in this study hold middle school (MS) teaching certificates. The certification for middle school teachers from low to high in China are as follows: MS Level-3, MS Level-2, MS Level-1, and

MS Level-Advance. As for the participating principals, beside the regular administrative tasks, the two principals still assumed part-time teaching assignments.

The courses the teacher participants taught during this study covered all the core courses—Mathematics, Chinese, and English—representing all the middle school grade levels in China—grade 7, grade 8, and grade 9. The Backbone Teachers usually were assigned some positions, and they had some honorable titles, while the non-Backbone Teachers usually had no position and had not received any titles. As reminder, the reader is cued to know how a Backbone Teacher becomes one. The great moral traits and expertise reflected by student achievement, class demonstrations, peer reviews, and research publications were the common evaluation indicators for the principal to select Backbone Teachers. In this study, the Backbone Teachers were chosen based on their principals’ recommendations. To capture more interaction among the Backbone Teachers and their teaching peers, the non-Backbone Teachers were selected, because they shared an office with one of the recommended Backbone Teachers. Table 4.4 shows the collective profiles of the principals, and Table 4.5 shows the collective profiles of the teacher participants.

Table 4.4

Principal Participant Profiles

School	Name	Gender	Part-time teaching Subject	Part-time teaching Grade	Certificate	Years in Education		Total
						Current Position	Admin.	
KM MS	Zhu	Male	Geography	8	MS Level-Advance	8	10	20
SY MS	Xu	Male	Politics	7	MS Level-1	4	20	30

Table 4.5

Teacher Participant Profiles

School	KM MS	KM MS	KM MS	KM MS	SY MS	SY MS	SY MS	SY MS
BT / Non-BT	BT	BT	Non-BT	Non-BT	BT	BT	Non-BT	Non-BT
Name	Shen	Gen	Han	Hu	Li	Wang	Ming	Yang
Gender	M	F	F	F	F	F	M	M
Grade	8	8	8	8	7	9	7	7
Subject	Math	ENG	Math	ENG	CHN	Math	CHN	Math
Total Years Teaching	12	23	11	4	10	7	6	7
Years at Site	12	7	11	4	10	7	6	6
Certificate	MS Level-Advance	MS Level-Advance	MS Level-1	MS Level-2	MS Level-1	MS Level-2	MS Level-2	MS Level-3
Position	Math Dept. Chair; School Supervisor	English Chair-person for Grade 8; School Supervisor	None	None	Deputy Chinese Dept. Chair; Chinese Chair-person for Grade 7	Math Chair-person for Grade 9	None	None
Most Honorable Title	City-Level Academic Leader	City-Level Teaching Master	None	None	District-Level Teaching Expert	District-Level Teaching Expert	None	None

Note. MS=Middle School; BT=Backbone Teacher; Non-BT=Non-Backbone Teacher; M=Male; F=Female; ENG=English; CHN=Chinese.

Profiles of the Principals

The principal of KM Middle School and the principal of SY Middle School were interviewed for the study. Both of them assumed dual responsibilities of being an administrator and a part-time teacher, teaching minor subjects at their schools. They both held teaching certifications on different levels, and their experience levels ranged from 20 to 30 years in education.

Mr. Zhu

Mr. Zhu had been the principal of KM Middle School for eight years at the time of this study. Prior to being principal of KM Middle School, he was a full-time geography teacher. Now teaching geography was still his part-time job. With 20 years of educational experience, Mr. Zhu had earned the highest level of teaching certification and held an administrative position for 10 years. To be a qualified principal, he attended several professional development programs for principals. The primary programs for principal professional development Mr. Zhu had attended in recent years included a national-level middle school principal training program in 2006, a provincial-level middle school principal over-seas investigation program in 2007, and a national-level curriculum reform trend seminar in 2011.

Mr. Zhu said that he had a more “open mind” about new ideas in the educational field since he attended the over-seas investigation program. He was the only participant familiar with the concept of “teacher leader” and “teacher leadership.” Mr. Zhu agreed with these concepts and expected all of his teachers to be teacher leaders. Therefore, he paid a great deal of attention to providing professional development opportunities for his teachers.

KM Middle School was a high-performing middle school, in which academic achievement was the first priority for everyone in the school. After holding the principal's position for eight years, Mr. Zhu's school remained the top performer in student achievement competitions with other middle schools in HA City. However, he also believed scores should not mean everything to learning, which was also a principle in the new round of basic educational reforms. Based on the requirement of the new curriculum reform, several school-based curriculums were placed into students' class schedules every week. For those courses, Mr. Zhu empowered teachers to teach whatever they wanted in the course. In his own words, as a principal, Mr. Zhu "tried my best to give students at his school a quality-oriented education within the exam-oriented education circumstance."

Mr. Xu

Mr. Xu was in his fourth year as the principal at SY Middle School, and he taught Politics part-time in the school. With 30 years of experience in education, Mr. Xu assumed many positions in the educational field. Prior to becoming principal of SY Middle School, Mr. Xu used to be a Chinese teacher in an elementary school in the QP District; then, he was promoted to principal of that elementary school. After that, Mr. Xu transferred to the upper central office and assumed the job of Director of Teaching and Research in the QP District Bureau of Education. Since he was assigned to assume the position of the principal at SY Middle School, Mr. Xu attended many professional development trainings related to middle school principal development. All of them were provincial-level training programs.

Just like Mr. Zhu, Mr. Xu agreed with the principles included in the new round of basic education reform. He clearly knew that SY Middle School was not a high-performing middle school from the lens of academic achievement. Since most of the students in SY Middle School

would not do as well in academic competitions as the students from the higher-performing schools, Mr. Xu tried to find a new way for those students to build up their confidence and to prepare them better for their future. Therefore, Mr. Xu led the establishment of school clubs as school-based curriculum in SY Middle School, and he expected this new course to assist students with their overall development. Mr. Xu expressed his educational philosophy like this: “I cautiously kept my balance in quality-oriented education and exam-oriented education.”

Profiles of the Backbone Teachers

A total of four Backbone Teachers, three females and one male, were interviewed for the study, two from each school. Two taught grade 8, one taught grade 7, and one taught grade 9. Two taught Mathematics, one taught Chinese, and one taught English. All of them had many years of teaching experience with a minimum of 7 years and a maximum of 23 years.

The Backbone Teachers in this study assumed some school positions including the curriculum chairpersons for their individual grades, the department chair and deputy department chair, and the school supervisor member. All of them had received honorable titles at the city-or district-levels. The certification for Backbone Teachers participating in this study ranged from two holding the highest level for middle school teachers, MS Level-Advance, one holding MS Level-1, and one holding MS Level-2.

Mr. Shen

Mr. Shen had been teaching Mathematics for 12 years and stayed at KM Middle School since he was hired for the teaching position. The principal at KM Middle School obviously thought very highly of Mr. Shen’s teaching ability. He was the first Backbone Teacher recommended by the principal, and his name was repeatedly mentioned in reference to being a teacher leader in the school during my conversations with the principal. Mr. Shen was always

assigned different roles and had earned various honorable titles. He used to serve as the Mathematics Chairperson for his individual grade, as well as the grade leader. Now, Mr. Shen was serving as the chair for the whole Mathematics Department from grade 7 to grade 9. As the department chair, Mr. Shen was responsible for all the mathematics teachers' professional development and all relevant activities related to teaching Mathematics. In the meantime, Mr. Shen was also serving as a key member of the school's supervisory group. Mr. Shen needed to observe at least one teacher's class at his discretion every two weeks, and he was expected to provide feedback on his or her teaching performance.

The most important title Mr. Shen had earned was Academic Leader for HA City. He had also earned many other honors on a lower scale. Mr. Shen has earned the highest level of teaching certification, MS Level-Advance. However, Mr. Shen still aspired to earn the most honorable title given to a public school teacher—Teacher of Special Grade—although he knew it was really difficult to achieve. The competition for Teacher of Special Grade was always extremely competitive. So far, according to his description, out of more than 40,000 public school teachers in the whole city public education system, there were a dozen of Backbone Teachers who could eventually win that title. But, Mr. Shen had faith in himself. Every year, Mr. Shen was recommended to participate in a variety of professional development programs at different levels, and he always grasped those opportunities. Taking higher level professional development projects over the past three years as an example, Mr. Shen had participated in the department chair training program at the city-level in August 2010, the math subject instruction training program at the city-level in July 2011, and the teaching expert training program at the provincial-level in May 2012.

Ms. Gen

Among all of the teacher participants, Ms. Gen was the one with the longest teaching experience. She had been teaching English as a second language for 23 years and had been at KM Middle School for 7 years. Her previous teaching experience was in a middle school in the rural area of the QP District that lacked adequate funding to run the school. As a Backbone Teacher, Ms. Gen used to assume many positions in her previous school because of her excellent teaching experience, which was also the reason she was hired by KM Middle School. Now, in KM Middle School, Ms. Gen was serving as the English chairperson for the eighth grade, in charge of regularly weekly meetings and activities for the eighth grade English teachers. Although Ms. Gen had only worked at KM Middle School for less than 10 years, considering her lengthy teaching experience and excellent teaching ability, she was assigned supervisory responsibilities. Like Mr. Shen, Ms. Gen was serving as a member of the school's supervisory group and also needed to observe one teacher every two weeks and provide feedback on his or her teaching ability.

Ms. Gen had earned the highest level of teaching certification, MS Level-Advance, and won many honorable titles during her 23 years of teaching, in which the most honorable title was city-level Teaching Master. Ms. Gen was very satisfied with what she had achieved and expressed that she would not be pursuing any more titles because of her age. Ms. Gen frankly mentioned that she had earned enough honors and should give opportunities to other younger teachers. But, Ms. Gen was very interested in professional development. Compared to her previous school, KM Middle School provided her many more opportunities to attend higher-level professional development programs, and Ms. Gen felt fortunate and always seized those opportunities. Over the past three years, Ms. Gen participated in the supervisor training program

at the provincial-level in July 2011 and the teaching expert training program at the provincial-level in May 2012.

Ms. Li

Ms. Li had worked at SY Middle School teaching Chinese for 12 years, since the beginning of her teaching career. She used to assume the position of Deputy Chinese Department Chair in 2011. Now, Ms. Li was serving as Deputy Chinese Department Chair (grade 7-9) as well as Chinese Chairperson for grade 7. Her responsibilities included planning all teaching and research activities in the Chinese Department and leading activities for the seventh grade Chinese teachers at SY Middle School, such as holding lesson plan meetings, assigning questions for the English examination, and organizing teachers to score tests for students in the seventh grade.

At the time of this study, Ms. Li held the teaching certification of MS Level-1. She was planning to apply for a higher level in the next year or two. Ms. Li had earned the title of Teaching Expert in a district-level competition. She taught two classes in the seventh grade. The exam results of the students in these two Chinese classes always ranked at the top compared to other classes in the seventh grade at SY Middle School. Considering the fact that SY Middle School was not a key school, compared to the Backbone Teachers at KM Middle School, Ms. Li had fewer opportunities to participate in teacher professional development projects. Over the past three years, Ms. Li had only participated in one project—a city-level Backbone Teaching training program. However, because of the limited spots for teacher professional development projects at SY Middle School, Ms. Li valued every opportunity she was given. Ms. Li expressed that she benefited a great deal from the project, and she would continue to seize any possible chance to attend another in the future.

Ms. Wang

Ms. Wang was the youngest Backbone Teacher of the teacher participants. She started her Mathematics teaching career at SY Middle School in 2005 and only had seven years of teaching experience. Although her teaching experience was not extensive, Ms. Wang's talent for teaching was highly recognized by the principal of SY Middle School. According to the principal, she was "young, passionate, creative, and never let people down." The principal assigned Ms. Wang the responsibility of being Mathematics Chairperson for the ninth grade, leading all the activities for mathematics teachers at the ninth grade level. Ms. Wang had the greatest growth in mathematics achievement at the ninth grade level.

Currently, the certification Ms. Wang was holding was MS Level-2. However, Ms. Wang had just submitted her application for MS Level-1. Her application was expected to be approved in the next coming months. Due to her principal's recommendation, Ms. Wang participated in two district-level teaching competitions and both times won honorable titles including Teaching Expert and Teaching's Rising Star. Over the past three years, Ms. Wang participated in two professional development projects—the Backbone Teacher training program in 2011 and the advanced seminar for mathematics teaching in 2012. As for her future plans, Ms. Wang indicated that she knew the expectations of her principal, and she would be ready to win more honors and assume more responsibilities.

Profiles of the Non-Backbone Teachers

A total of four non-Backbone Teachers, two females and two males, were interviewed for the study, two from each school. They taught in the eighth grade and the seventh grade, two from each grade. Two taught mathematics, one taught Chinese, and one taught English. This group of teachers had taught from 4 to 11 years. None of them assumed any positions at school

or had a chance to earn any titles yet. The certifications they held ranged from MS Level-3 to MS Level-1.

Ms. Han

Ms. Han loved teaching Mathematics. Her first teaching job at KM Middle School began in 2001, and he had stayed at this school for 11 years. During the time of the study, Ms. Han was teaching eighth grade mathematics. The highest level of teaching certificate she held was MS Level-1. With 11 years of teaching experience, Ms. Han was very confidence in her teaching abilities. Ms. Han expressed that she would definitely pursue the highest level, MS Level-Advance, in three years, because that certification represented the most honorable recognition of being a qualified teacher.

Ms. Han was in the same office with the Backbone Teacher Mr. Gen, since they both were teaching eighth grade mathematics. She gladly agreed to participate in the study after learning what the study entailed. Ms. Han had not taken any position or received any honorable titles, because she did not want to take any extra responsibility beyond teaching mathematics. Ms. Han thought that all of these extras were meaningless, and she did not wish to spend time and energy pursuing them. The professional development programs Ms. Han could have participated in were mostly projects at the school-level. The only project beyond the school-level that Ms. Han had participated in was city-level training for new curriculum in 2007.

Ms. Hu

Ms. Hu was the youngest teacher among all of the eight teacher participants. She began her teaching career at KM Middle School in 2008. At the time of the interview, Ms. Hu had been teaching less than four years. Ms. Hu was teaching the eighth grade English and sharing the same office with the Backbone Teacher, Ms. Gen since they were both teaching eighth grade

English at KM Middle School. Although Ms. Hu was too young to have had a chance to assume any positions or to earn any titles, she had ambitions and had faith in herself. Ms. Hu mentioned that if there was a chance, she would be happy to prove that she was capable of assuming more responsibility and earning honorable titles.

Ms. Hu was friendly and got along well with her peers. Ms. Hu had successfully gained a MS Level-2 certification during her third year of teaching, which is usually awarded after an average of five years for a middle school teacher. Her personality and potential also brought Ms. Hu more opportunities to participate in various professional development programs. Over the past three years, Ms. Hu had participated in three programs beyond the school-level, including a provincial-level English open class program in October 2009, a city-level teaching competition program in May 2010, and a provincial-level teaching competition program in September 2010.

Mr. Ming

Mr. Ming had been teaching for six years. He was hired by SY Middle School and had been in the position since he was hired. During the period of the research, Mr. Ming was teaching seventh grade Chinese and shared the same office with the Backbone Teacher, Ms. Li, because they were both teaching seventh grade Chinese at SY Middle School.

Currently, Mr. Ming held the certification of MS Level-2. Mr. Ming was very frank in saying that he was not qualified for the next level at this time, but he would try his best to apply in the next couple of years. So far, Mr. Ming had not been assigned more responsibility or chances to win honors. However, Mr. Ming had assisted Ms. Li to organize or to plan activities for teachers who teach seventh grade Chinese, and he consistently shouldered some tasks assigned by the school's administrators since there was often a shortage of help. Over the past

three years, Mr. Ming participated in a few professional development programs, in which the highest level project was a district-level new curriculum teaching training program.

Mr. Yang

Mr. Yang had been teaching for seven years. Except for his first year, he had remained at SY Middle School, teaching mathematics for six years. In his first year, Mr. Yang had worked as a mathematics tutor for middle school students in a learning center, and he was hired by SY Middle School the next year. During the time of the research, Mr. Yang was teaching seventh grade mathematics. Mr. Yang was in the same office with the Backbone Teacher, Ms. Wang, since they were all teaching mathematics at SY Middle School.

Mr. Yang had a strong personality. Mr. Yang was passionate about teaching mathematics, and he did not care about anything but teaching mathematics. This was the reason why Mr. Yang was still at a MS Level-3 certification level with seven years of teaching experience, and he did not participate in any competitions to win honors. However, the average mathematics achievement of his students always ranked at the top for SY Middle School. Mr. Yang was proud of the unique teaching style he had created, which was difficult for other teachers to learn. Mr. Yang candidly shared with the researcher that the professional programs he used to participate in were not much help. Over the past three years, Mr. Yang only participated in one district-level new curriculum training program in 2012.

The next chapter, Chapter 5 details the data collected from the interviews of the 10 participants and the analysis of this data as well as the analysis of observations made by the researcher and the analysis of field notes and artifacts. Following this analysis, Chapter 6 provides a cross-case analysis offered in a thematic fashion.

CHAPTER 5

INDIVIDUAL CASE FINDINGS

Introduction

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. Data related to the perceptions and experiences of Backbone Teachers, non-Backbone Teachers, and principals were collected and used to make within-case analyses and cross-case analyses. The guiding research questions included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teachers' professional development and school improvement?

With the research questions as a guiding framework, categories were first established and then themes were generated from the categories to construct the findings for each case.

Briefly speaking, the first theme, *Roles of Backbone Teachers*, addressed the practical duties Backbone Teachers fulfilled and what their roles were supposed to be. The second theme, *Conditions for Developing Backbone Teachers*, presented the positive and negative conditions which shaped the development of Backbone Teachers. The third theme, *Impact of the Development of Backbone Teachers*, showed the impact on Backbone Teachers, non-Backbone

Teachers, students, and schools. Based on the analysis of combined data from interviews, observations, shadowing experiences, and written documents, Backbone Teachers, non-Backbone Teachers, and principals had their individual interpretations on these three themes.

Roles of Backbone Teachers

As for the theme, Roles of Backbone Teachers, two sub-themes representing the practical roles and espoused roles emerged. The sub-theme related to the practical roles consisted of four overlapping categories including *developing curriculum and instruction*, *attending to administrative tasks*, *helping and supporting teachers*, and *being an intermediary*. The sub-theme related to espoused roles concluded two categories, *acting as a role model* and *playing a leading role*.

Data from the three cases, Backbone Teachers, non-Backbone Teachers, and principals, generated the same categories and themes with different highlights based on their individual interpretations. Table 5.1 lists relevant categories and sub-themes for the findings about the roles of Backbone Teachers.

Table 5.1

Categories and Sub-themes for Roles of Backbone Teachers

Themes	Sub-themes	Categories
Roles of Backbone Teachers	Practical roles of Backbone Teachers	Developing curriculum and instruction Attending to administrative tasks Helping and supporting teachers Being an intermediary
	Espoused roles of Backbone Teachers	Acting as a role model Playing a leading role

Backbone Teachers

The practical roles of Backbone Teachers. What Backbone Teachers actually did was associated with four practical roles including developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. The four roles practiced by Backbone teachers overlapped with each other.

Developing curriculum and instruction. The first duty for all Backbone Teacher participants mentioned was related to curricular and instructional activities. Since they were all appointed into some leadership position such as department chairs or chairpersons for a specific grade, Backbone Teacher participants were in charge of the relevant curricular and instructional activities in the individual group under their lead. Based on their own descriptions, Backbone Teacher participants needed to supervise teachers' instruction, study the textbook and the exam papers, review lesson plans, learn new curriculum guidelines, plan students' extracurricular activities and school-based curriculum, and arrange affairs related to teaching such as observing or demonstrating model classes.

In fact, the observation data related to the meetings led by Backbone Teachers in KM Middle School and SY Middle School showed that they typically engaged in activities related to curriculum and instruction. There was one lesson study meeting and at least one department teaching and research activity every week in both schools. Ms. Gen, Ms. Li, and Ms. Wang in the lesson study meeting were reviewing their colleagues' lesson plans, leading teachers' discussions, and making professional judgments on disputes individually during their meetings. In the department teaching and research activities, in SY Middle School, Mr. Li explained the new curriculum reform trend and explained the changes in the textbook and in the future exams, while in KM Middle School, Ms. Gen hosted a heated discussion on the model class observation,

and led colleagues in providing their feedback on the instruction of the teacher demonstrating that model class.

The observation data proved that similar activities could be seen in both KM Middle School and KM Middle School. In general, Backbone Teacher participants were engaged in all the curricular and instructional activities in schools and played a leading role in those activities.

Attending to administrative tasks. If the curricular and instructional activity was the Backbone Teachers' priority duty, administrative tasks would be an unlikely but inevitable duty they were "forced" to assume. Ms. Gen directly expressed that she actually had "a little bit [of] regret about being the chairperson" for eighth grade English. Since Ms. Gen was appointed to this position, she did not have as much time as before to study her own lesson plans and instructional activities. Ms. Gen's time was taken up by "all kinds of administrative affairs."

The other three Backbone Teacher participants described their administrative tasks, stating:

There are so many meetings I have to attend or schedule, so many school decisions I have to relay, so many assignments and evaluations from the higher-level administrative department I have to handle... For example, next week there will be a lesson plan examination in the school. I have to make sure every teacher in my department knows about this news and is ready for the examination. (Mr. Shen)

If the principal makes a decision, such as to initiate an activity, I have to make sure everything will be going the way it needs to go. I have to dispose manpower, communicate with involved teachers, set up time, book the room, arrange necessary equipment, prepare the back-up plan, and etc. (Ms. Li)

I take the responsibility of the ninth grade Mathematics materials, planning of meetings for the ninth grade Mathematics teachers, facilitating activities, asking people to come to do presentations, delivering messages from one to another, doing whatever the principal asked me to do. I am the person to make sure those things in my group go well. (Ms. Wang)

During the interview, similar words like "wrap things up," "filling out reports," "scheduling a meeting," and "doing paper work" were constantly mentioned by the Backbone Teachers.

The observation data from both KM Middle School and SY Middle School confirmed participants' administrative tasks. Mr. Shen, as Mathematics Department Chair at KM Middle School, and Ms. Li, as Deputy Chinese Department Chair at SY Middle School, were often found to be present in certain meetings after they finished their classes. Ms. Gen as Grade-8 English Chairperson at KM Middle School and Ms. Wang as Grade-9 Mathematics Chairperson frequently reminded teachers in their groups to attend the meetings before the meeting, and after the meetings, they stayed late to complete the meeting notes. They did those duties so naturally that it was evident that those duties had become part of their normal routines.

Helping and supporting teachers. Backbone Teacher participants identified their roles in helping and supporting their colleagues as another priority duty for them. In fact, the first prioritized role of leading curriculum and instruction overlapped with helping and supporting teachers. Most of the questions teaching peers asked or support teaching peers needed were associated with curriculum and instruction. As Mr. Gen stated, "Backbone Teachers were willing and capable of providing help and support" for their teaching peer, as "they were leaders in the curriculum and instruction." He further explained that his positions as department chair "made it [helping and supporting teachers] perfectly justifiable."

Backbone Teacher participants all clearly recalled the help provided by some experienced Backbone Teachers when they were novice teachers. They recalled the key times they could always get help from those experienced Backbone Teachers. Even now, they would still like to consult those experienced Backbone Teachers when they experienced difficult problems. As for themselves, Backbone Teacher participants all remarked that they continued such a custom of helping each other by sharing what they know and solving problems their peers faced.

The observation data did support their claims of helping peers. Since they were either a department chair or chairperson, when there was some instructional or curricular issue, teachers would naturally ask for the professional judgments of the Backbone Teachers. In a Mathematics Department meeting in KM Middle School, teachers could not reach agreement on how to teach a mathematics concept, and Mr. Shen was the one that everyone turned to for help to finalize the teaching content. Such an interaction in the meeting displayed how Mr. Shen, as a Backbone Teacher, helped teachers to resolve conflict around curricular and instructional issues.

In addition, most of the activities the Backbone Teachers were involved in were associated to teacher development. Backbone Teachers as staff developers supported their colleagues' professional learning needs. Mr. Shen and Ms. Gen at KM Middle School were both key members in their school's supervisory group. They observed at least one teacher's class every two weeks, and they provided their feedbacks with the observed teachers. In the meantime, as the department chair and chairperson, Ms. Shen and Ms. Gen recommended teachers with talents to attend various teaching competitions and actively helped teachers to prepare their instruction for the competitions. It could be said that the Backbone Teachers contributed to every honor earned by the teachers in their groups.

Ms. Li and Ms. Wang at SY Middle School shared their experience in teaching workshops with their colleagues, introduced, and even modeled the newly learnt instructional strategies related to pedagogic knowledge in their subjects. They expressed that they would like to share those good ideas with peers and expected them to learn something from the content and the activities in these workshops.

Being an intermediary. Backbone Teacher participants highlighted an important role they were playing—mediating issues among teachers and between teachers and the principal. The Backbone Teacher participants all had experiences of dealing with conflicts or disagreements among teachers. The observation data showed that Backbone Teacher participants were good at mediating conflicting issues amongst teachers. In the meetings led by Backbone Teacher participants, heated discussions often happened. At that time, Backbone Teachers were always able to calm teachers, to split the differences, and to mediate the disputes among teachers. These meetings went very smoothly no matter how heated teachers argued or debated in the meeting.

Being an intermediary between teachers and the principal was an inevitable role for Backbone Teachers, because the principal always interacted with them first and then had Backbone Teachers communicate with the other teachers. This role overlapped the role of administrative tasks Backbone Teachers enacted during their work days. The administrative rules and decisions were relayed by Backbone Teachers to the whole teacher group. As Ms. Li expressed, Backbone Teachers including herself were assuming the role of “disseminating information from the higher level to the bottom level in the school.”

Certainly, information transmission is bidirectional. Mr. Shen and Ms. Gen at KM Middle School stated that they often reported the current development of teachers to the principal and recommended to principal the teachers with potential. If some “accidents” (e.g., the teachers were being late for class demonstrations, missing students’ assignments, or receiving formal complaints from students or parents) happened in the Mathematics Department or the eighth grade English group in the school, Mr. Shen and Ms. Gen were usually the major communicators delivering messages, back and forth, between the principal and the teachers who were involved.

However, Ms. Li and Ms. Wang held a negative attitude toward the intermediary role between teachers and the principal. They complained that in SY Middle School such communication was only in a one-way direction—from the principal to the teachers. Ms. Li indicated that “there was lots of feedback from teachers coming toward the principal, but it wasn’t heard, and then no feedback from teachers’ group would be delivered again in the school.” Although Ms. Li and Ms. Wang represented teachers’ voices, they would not actively tell the principal the teachers’ information unless the principal asked.

The espoused roles of Backbone Teachers. In China, there was a standard answer to the question “What role should Backbone Teachers play?” which was stipulated in the policy document issued by the Minister of Education in Mainland China (Minister of Education, 1998). A Backbone Teacher should act as a role model and play a leading role for the whole teacher group (Minister of Education, 1998). The Backbone Teacher participants held a positive attitude that what they were actually doing was closely related to what they were supposed to do, while the differences were how well they fulfilled their duties, which are illustrated in the following descriptions.

Acting as a role model. Backbone Teacher participants remarked that a role model should be recognized by everyone, including themselves, colleagues, principals, students, and parents. They further illustrated that a role model should have expertise including sharing content knowledge and instructional skills, exhibiting positive and responsible working attitudes, acting in such a way that they could be respected and trusted by the principal and their colleagues, and promoting the success of the students.

The area in which the Backbone Teachers felt most competent was in their expertise. The Backbone Teachers were very confident about their professional abilities. The honorable titles the Backbone Teachers earned and the achievements of their students were evidences to reflect their professional levels of expertise. However, the Backbone Teachers all modestly expressed that there were always people better than them outside of their schools. Ms. Li and Ms. Wang both expressed that they might be good at teaching at SY Middle School, but the teachers at KM Middle School were much better than them. Both Mr. Shen and Ms. Gen, as Backbone Teachers at KM Middle School, thought that they could be considered as members of the best teachers in HA City; however, Mr. Shen and Ms. Gen always felt an impetus to learn when they came back from professional development projects where Mr. Shen and Ms. Gen witnessed so many better teachers outside HA City. Therefore, the scores Backbone Teacher participants gave themselves as role models were all around 75 on a scale of 100, because they all felt that improvements in their expertise were still needed.

Playing a leading role. Backbone Teacher participants all agreed that they did play a leading role in the teacher group. To play a leading role, as Mr. Shen noted, he “looked at the big picture,” and “stayed on top of research in the subject field.” Ms. Shen added that she “initiated activities” and “led the growth of [her] group members.” Ms. Li and Ms. Wang emphasized that they enacted their leading role through organizing the curricular and instructional activities and by helping and supporting teachers. However, Backbone Teacher participants in different schools have different opinions on the impact of their leading role. Mr. Shen and Ms. Gen at KM Middle School had much more confidence about their leadership impact than did Ms. Li and Ms. Wang at SY Middle School. For instance, Mr. Shen was credited with initiating a successful extracurricular activity for students called *Mathematics*

Festival in KM Middle School, which was so creative that it became the model activity for other schools in HA City. Ms. Gen was credited with recommending and supervising a young teacher in her group who attended the city-level teaching competition, and who gained the first place the previous semester. Apparently, Mr. Shen and Ms. Gen at KM Middle School played a very influential role in these two examples of the types of teacher leadership that Backbone Teachers exert.

Ms. Li and Ms. Wang at SY Middle School claimed that they did not have a chance to initiate similar activities. Instead, the principal at SY Middle School was “the man with ideas.” Usually Ms. Li and Ms. Wang just organized and implemented the activities initiated by the principal. So, Ms. Li and Ms. Wang did not credit these activities to their leadership. As Ms. Li commented, she actually acted as “an executant rather than a leader.” In addition, at KM Middle School, teachers were usually appointed by the principal and learned by themselves how to prepare for teaching competitions without the Backbone Teachers’ supervision unless they asked Backbone Teachers to assist. Therefore, as Mr. Li mentioned, “I did my part to introduce some good ideas in my group, but I don’t know whether the teacher would use it or not, and I could not force them to use it.” Basically, Mr. Li and Ms. Wang at SY Middle School had some doubts about their leading roles.

Certainly, even Mr. Shen and Ms. Gen at KM Middle School admitted that their interpersonal skills were the areas in which they felt least competent when they were enacting their leadership roles. Although Mr. Shen and Ms. Gen believed that they played an effective leading role, they still gave a relatively modest evaluation on their performance of leading. Mr. Shen and Ms. Gen both thought that they were doing only “OK” because they were not sure that every teacher was satisfied. Ms. Li and Ms. Wang at SY Middle School also had concerns about

their interpersonal skills. Considering their uncertain leadership impact, Ms. Li and Ms. Wang both adopted the phrase “just so so” as a self-evaluation on their performance of leading.

In summary, Backbone Teacher participants were confident that they were trying to act as role models as expected. As for their leading role, Backbone Teacher participants at KM Middle School had a positive attitude that they did perform the leading roles as expected; although, their interpersonal skills still needed improvement. However, Backbone Teacher participants at SY Middle School had concerns about their leading performance because they doubted the results of their efforts.

Non-Backbone Teachers

The practical roles of Backbone Teachers. The practical roles of Backbone Teachers in the eyes of non-Backbone Teachers were associated with four aspects: developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. These four aspects are the same with the four practical roles in the eyes of Backbone Teacher participants.

Developing curriculum and instruction. Non-Backbone Teacher participants all presented that Backbone Teachers in their group in charge of activities or programs were related to curriculum and instruction. The typical examples Non-Backbone Teachers recounted were the lesson study meeting every Monday evening and the department teaching and research activity once a week at both KM Middle School and SY Middle School. In a lesson study meeting, the teaching plan connected to the next week’s curriculum was reviewed, and the teacher, who developed the draft of the standard teaching plan framework, needed to present his or her instruction in front of all the teachers in the group.

The department teaching and research activities varied. During the research period, four department activities were observed including an exam activity for testing teachers' content knowledge in the Mathematics Department at KM Middle School, an experience sharing activity in the English Department in KM Middle School, a model class observation in the Chinese Department in SY Middle School, and a mathematics project discussion in the Mathematics Department at SY Middle School. The lesson study meeting and the department teaching and research activities required the presence of all teachers in the group and were led and organized by the grade chairperson and the department chair respectively. Therefore, every week non-Backbone teachers could observe Backbone Teachers leading the curricular and instructional activities at least twice in both KM Middle School and SY Middle School.

In addition to the lesson study meeting and the department teaching and research activities, Ms. Han at KM Middle School considered Mr. Shen as a man of creativity in terms of curricular and instructional activities. She cited the *Mathematics Festival* initiated by Mr. Shen as an example. The *Mathematics Festival* was a successful extracurricular activity for students and had become an established custom in KM Middle School. Ms. Han stated that Mr. Shen always had some great ideas on curricular and instructional activities planned, and he implemented them successfully.

Attending to administrative tasks. Non-Backbone Teacher participants did not mention much about Backbone Teachers' administrative tasks. As Mr. Yang mentioned, "I was not in that position so I do not know what kind of administrative tasks they (Backbone Teachers) might have." However, non-Backbone Teacher participants all mentioned one phenomenon that there were always some temporary meetings for Backbone Teacher participants to attend. And when the Backbone Teachers came back from these meetings, the Backbone Teachers would relay the

information learned from the meeting to everyone in the group and make relevant arrangements such as assigning tasks and disposing manpower. Although non-Backbone Teacher participants would not know exactly how the Backbone Teachers dealt with those things, non-Backbone Teacher participants were sure that those administrative tasks were time-consuming. As Ms. Han addressed, “so many factors needed to be considered.” Ms. Han even identified those administrative tasks as the main reason for discouraging her from becoming a Backbone Teacher. Compared to those administrative tasks, Ms. Han would rather spend more time on her regular teaching in her classroom.

Helping and supporting teachers. Most activities Backbone Teachers engaged in the eyes of non-Backbone Teachers were related to helping and supporting teachers. Non-Backbone Teachers’ themselves were also involved in those activities. Non-Backbone Teacher participants provided many examples they experienced or witnessed, by stating:

My previous mentor, the retired Mathematics Department Chair, was always patient with me when I was a novice teacher. No matter what kind of questions I asked, he always had a perfect answer. Until now, if I came across some problems, I would still like to consult him. His valuable advice always guided me to get rid of the trouble. (Ms. Han)

Since I was selected to attend the teaching competition last year, the department chair and the chairperson in my group both helped me to prepare for the competition. I demonstrated the trial presentations in front of them four times. They indicated the places that needed improvements every time after my demonstration and I came home and made adjustments. Their advice was very valuable. There was a huge improvement in my class demonstration. And finally I won the first place in that competition. (Ms. Hu)

The chairperson in my group was a man with a great deal teaching experience. And he was such a nice person willing to share his ideas and experience. If I did not know how to teach some knowledge points, I would go to observe his class without advanced notification. I always felt enlightened after observing his classes. (Mr. Yang)

I like observing classes taught by excellent teachers in various teacher professional development programs. I can learn a lot from such observations. However, I do not have many chances to attend those programs. But every time the Backbone Teachers in my group came back, they would share what they saw and experienced in the program with

us. I like those experiences sharing activities. I can still learn something, although I could not be there. (Mr. Ming)

Non-Backbone Teacher participants all expressed that the Backbone Teachers in their schools were doing a good job in helping and supporting teachers. They did appreciate such help and support from the Backbone Teachers in their schools.

Being an intermediary. Non-Backbone Teacher participants mentioned that another function of Backbone Teachers was being an intermediary. They claimed that most of the school news was heard from the Backbone Teachers and that the Backbone Teachers built a communication channel between the non-Backbone Teachers and the principal in the school. That's why Ms. Han called Backbone teachers "middle men," and Mr. Ming called Backbone Teachers "message deliverers." Mr. Ming at KM Middle School cited a recent school decision as an example to illustrate this point. The principal at SY Middle School decided to initiate a school-based curriculum called "School Clubs." The Backbone Teachers were first notified in a meeting, and then after the meeting, they went back to their departments or groups to disseminate the decision as well as the instructions created by the principal.

Ms. Hu was selected to attend a city-level teaching competition last year. The Backbone Teachers' intermediary role was also embodied in the selection process. Several candidates including Ms. Hu and others in her English Department were first recommended by the grade chairperson to the department chair. Then the English Department Chair, grade chairperson, and some other experienced supervisors reviewed candidates' class demonstrations in a department-level teaching competition, selected the winner, and recommended the winner to the principals. Then Ms. Hu received the appointment message from the grade chairperson that she was selected to represent the school and to attend the city-level competition. Ms. Hu appreciated the Backbone Teachers' recommendations so that her teaching ability could be recognized by the

principal. In this case, the Backbone Teachers played a significant role as an intermediary between Ms. Hu and the principal.

Ms. Han implied that the Backbone Teachers' role was to solidify colleagues and to mediate disputes. As Ms. Han stated:

The current Backbone Teachers in my group are all worthy of the name and are respected and trusted by most teachers. Usually, there are no conflicts in the group. Everyone gets along well with each other. However, there might be some academic disputes in the group. Then at that time, the Backbone Teacher in charge would step out to ease off the tension, mediate the disputes, and make the final judgment. And the mediation of the Backbone Teachers in charge always worked very well.

In conclusion, in the eyes of non-Backbone Teacher participants, Backbone Teachers were playing an intermediary role in delivering messages between the principal and the teachers, and to mediate issues among the members of teaching groups.

The espoused roles of Backbone Teachers. Similarly, the non-Backbone Teachers gave standard answers to what role the Backbone Teacher should play. A Backbone Teacher should act as a role model and play a leading role for the whole teacher group (Minister of Education, 1998).

Acting as a role model. All non-Backbone Teacher participants considered the current Backbone Teachers in their schools as role models. They could tell that the Backbone Teachers held a positive and responsible attitude toward the work. The class observation showed that Backbone Teachers had good expertise including content knowledge and instructional skills. On average, the students taught by Backbone Teachers had better achievement than students in non-Backbone Teachers' classes. Mr. Yang at SY Middle School and Ms. Han at KM Middle School directly stated that the current Backbone Teachers were acting as the *ideal* Backbone Teachers.

Playing a leading role. All non-Backbone Teacher participants agreed that the Backbone Teachers did play a leading role in teacher groups. Non-Backbone Teacher participants in two schools listed many cases that displayed Backbone Teachers' leadership. For instance, they all indicated that Backbone Teachers in their schools supervised the novice teachers, led and organized the group meetings and activities, introduced advanced instructional strategies and skills, made professional judgments and final decisions in their fields, and designed a plan for their teacher groups.

As a matter of fact, at KM Middle School, some non-Backbone Teachers directly called the Backbone Teachers in charge "the leader" on some informal occasions. Apparently, non-Backbone Teacher participants believed that Backbone Teachers at KM Middle School performed their leadership roles very well. However, the non-Backbone Teacher participants at SY Middle School highlighted that Backbone Teachers in their school still needed to work harder as leaders in shaping a positive and collaborative school culture. Non-Backbone participants at KM Middle School did not mention the culture shaping issue, since the culture in KM Middle School was very positive in the eyes of non-Backbone Teacher participants.

In conclusion, non-Backbone Teacher participants were generally satisfied with what Backbone Teachers actually did. They considered the current Backbone Teachers as role models who played the leading roles in the teachers' groups, which was what Backbone Teachers were supposed to do. However, non-Backbone Teacher participants at SY Middle School indicated one place that needed improvement for Backbone Teachers was in the realm of exerting leadership. They thought that Backbone Teachers should play more significant roles in shaping a positive and collaborative school culture at SY Middle School.

Principals

The practical roles of Backbone Teachers. From the perspectives of the principals at KM Middle School and SY Middle School, the practical roles of Backbone Teachers could be grouped into four categories: developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. Apparently, the principals shared the same opinion on the practical roles of Backbone Teachers as Backbone Teacher participants and non-Backbone Teacher participants.

Developing curriculum and instruction. Backbone Teachers' roles in leading curricular and instructional activities in the school were mentioned as a priority duty for Backbone Teachers by two principals. Mr. Zhu, as the principal at KM Middle School, expressed that since Backbone Teachers were excellent teachers with outstanding expertise, he trusted them "to do a good job in charge of activities." Regarding curricular and instructional issues, Mr. Zhu empowered the Backbone Teachers such as department chairs or grade chairpersons to take the lead to do whatever they wanted to do. Mr. Zhu believed that the empowerment in the field of curriculum and instruction could "bring Backbone Teachers' superiority into full play," so that solid curricular and instructional activities could be developed in the school. Mr. Zhu was extremely satisfied with the performance of current Backbone Teachers in the school. It turned out that the students' extracurricular activities, the public model classes, and the students' assignment designed by subject department teachers in KM Middle School were so good that other school principals were impressed, and they sent their Backbone Teachers to learn from the ones at KM Middle Schools.

Mr. Xu, as the principal at SY Middle School, expressed that he directed Backbone Teachers in the position related to curriculum and instruction to improve the quality of teaching in the school. Since Backbone Teachers' professional ability represented the best teaching quality of the school, it was rational to make Backbone Teachers take the lead in the field of curriculum and instruction. Mr. Xu listed many relevant activities Backbone Teachers were doing in SY Middle School. For example, Backbone Teachers in the supervisory group needed to observe and to supervise colleagues. Backbone Teachers needed to share their learning experiences from the conference or training programs they attended in school meetings, to lead the group of teachers to prepare classes in the weekly lesson study meeting, and to plan and to organize activities in the department teaching and research activities every week.

Apparently, Backbone Teachers in both KM Middle School and SY Middle School were empowered by the principals to take the lead in curricular and instructional activities. The observation data also confirmed Backbone Teachers' leading role in curriculum and instruction in both schools.

Attending to administrative tasks. The principals felt empathy for what Backbone Teachers had been through facing so many administrative duties. As Mr. Zhu mentioned, "besides the activities related to teaching affairs, Backbone Teachers had to do a lot of paper work and legwork, such as attending meetings, gathering information, disposing manpower, preparing materials, and arranging issues." Mr. Xu shared the same sentiments stating, "There is no doubt that Backbone Teachers often face so many reports to fill in, so many meetings to attend, and so many tasks to schedule." However, both Mr. Zhu and Mr. Xu touched lightly on this issue because they did not consider it as a big deal but only time-consuming. Mr. Zhu stated that "Backbone Teachers should be prepared to deal with those boring and trivial administrative

tasks.” Mr. Xu commented that “Backbone Teachers should expect those kinds of responsibilities since they were appointed into leader positions.”

Helping and supporting teachers. The principals believed that helping and supporting teachers was another major duty for Backbone Teachers. Mr. Xu stated, “Why are they called Backbone Teachers? The reason is they are the backbone of the teacher group and of the school and teachers can count on them to offer help and support.” Mr. Zhu expressed the same meaning when he shared that “the nature of forming Backbone Teachers’ was to better serve the other teachers and the whole teacher group.”

The descriptions from the two principals on what Backbone Teachers responsibilities were mostly associated with helping and supporting teachers. For example, there existed the supervisory group mentor projects, the weekly lesson study meetings, the weekly department teaching and research activities, and various school-level teaching competitions in both KM Middle School and SY Middle School. Backbone Teachers as the supervisors were required to observe teachers’ classes and to provide feedbacks for them. Backbone Teachers as the mentors helped teachers to solve problems during work and to guide teachers’ teaching and managing students in the class.

Backbone Teachers as the hosts led the lesson study meeting, reviewed the lesson plans, supervised trial teaching, designed assignments, and made professional decisions on uncertain subject content and instructional strategies. Backbone Teachers as leaders planned and organized the teaching and research activities to enable teachers to learn and to improve professionally. Backbone Teachers as the organizers and reviewers provided advice to facilitate teachers to grow through competitions. Apparently, the two principals appointed Backbone

Teachers to different leadership positions in both schools, so that Backbone Teachers could be engaged in all varieties of activities to help and support their teaching colleagues.

Being an intermediary. The two principals both highlighted that Backbone Teachers served as intermediaries and they indicated that they depended on Backbone Teachers to communicate with teachers. Mr. Xu described that Backbone Teachers acted like “a communication bridge” between the principal and the teachers. For any school information from the administrative level, Backbone Teachers would be notified first. As Mr. Zhu shared:

If I and other administrators made some school decisions or enacted some rules, I would gather the Backbone Teachers to have a meeting to announce the news. Then after meeting they would come back to the teacher group and relay the information to the other teachers.

In the meantime, Backbone Teachers acted as supervisors to report on the performance of the teachers in the group. Mr. Zhu explained that he often learned teachers’ information based on Backbone Teachers’ recommendations. As he stated:

If I need to send a young teacher to demonstrate a class to the public or to attend the some teaching competition, I will ask the Backbone Teacher in charge which teacher in his or her group will be most appropriate.

In addition, if some “teaching accidents” (e.g., the teachers were being late for class demonstration, missing students’ assignments, or receiving formal complaints from students or parents) happened, the regular procedure would be as follows, as Mr. Xu stated:

I will first learn the information from the relevant Backbone Teachers. Then usually I will send the Backbone Teachers to talk to the involved teachers to fix things up. Then the Backbone Teacher will come back to me to report the whole process of dealing with the accident. If the Backbone Teachers tell me that they cannot persuade the involved teachers, I will then personally talk to those teachers. That situation was very rare. In that case, the accident must be very serious.

Mr. Zhu mentioned the same procedure for dealing with “accidents” in his school. He explained that Backbone Teachers were “the best persons to communicate with teachers about the accident” because Backbone Teachers were “familiar with,” “trusted,” and “respected” by the teachers under their leadership. Therefore, the Backbone Teachers’ words might be more useful for the involved teachers. Mr. Zhu also mentioned that Backbone Teachers assumed roles in mediating issues among teachers. He asserted that it was easy for Backbone Teachers to “convince the teachers of Backbone Teachers’ decisions.”

The espoused roles of Backbone Teachers. Similarly, the principals gave the same standard answers to what Backbone Teachers should do as the Backbone Teacher participants and non-Backbone Teacher participants: a Backbone Teacher should act as a role model and play a leading role for the whole teacher group. However, the two principals had their individual understandings on the areas that needed improvement for Backbone Teachers to play their leadership roles.

Acting as a role model. The two principals emphasized two aspects of Backbone Teachers role models. One referred to Backbone Teachers’ “expertise” while the other one referred to their “moral traits.” The two principals claimed that Backbone Teachers should have outstanding professional qualities and that the current Backbone Teachers’ performance was satisfying to them. The two principals further explained that the students’ achievement in Backbone Teachers’ classes was always great with fine evaluations from students and parents in the schools. Besides, Backbone Teachers earned different kinds of titles or awards related to the instruction or curriculum, which showed that Backbone Teachers’ professional expertise was recognized by the teaching experts. Therefore, the two principals asserted that Backbone

Teachers' professional qualities had been good enough to act as a role model for other teachers in the schools.

As for moral traits, the two principals referred to Backbone Teachers' dedication to the work and to the school. They were aware that Backbone Teachers often brought work back to home or overworked on weekends. They appreciated that Backbone Teachers sacrificed part of their individual interests (e.g., spare time, family life, etc.) for the general interests of the schools. The two principals indicated that the current Backbone Teachers were all "dedicated" teachers in the schools.

Playing a leading role. The principals confirmed that Backbone Teachers were playing a leading role in the school. As Mr. Zhu further clarified, Backbone Teachers were definitely "leaders in the teacher group," although they might not be administrative leaders. The two principals both emphasized that Backbone Teachers should have creativity, hold the overall view of teaching and learning within their buildings, and shape a positive and collaborative culture in the schools.

Mr. Zhu was very satisfied with the creativity of the Backbone Teachers at KM Middle School. He cited a students' extracurricular activity initiated and led by the Mathematics Department Chair at KM Middle School as a good example of creativity. The department chair initiated the *Mathematics Festival* that connected mathematics knowledge to daily phenomena to attract students' interests in mathematics, which was impressive and became a successful model activity for other schools in the city.

Mr. Zhu indicated that Backbone Teachers played their leading role in directing the orientation of the teacher group. Therefore, in Mr. Zhu's opinion, Backbone Teachers need to "have the overall view to follow the trend of the educational reform" and "be sensitive to the

changes related to the curriculum and the exam.” Mr. Zhu further elaborated: “After all, Backbone Teachers’ professional judgments would determine how teachers would teach in the classroom and would eventually influence the students’ achievement on the Unified Higher School Entrance Examination, which was the foundation of the school reputation.” So far, the Backbone Teachers at KM Middle School were obviously doing very well, because KM Middle School remained in the top position on the school ranking list in HA City.

Mr. Xu thought that the Backbone Teachers at SY Middle School could neither follow the trend in the educational field nor figure out some creative activities to initiate. Consequently, he had to do it by himself. He did the research, formulated new ideas and plans, and had Backbone Teachers implement the plans in detail. For example, the recent educational reform advocated that the local schools should design their own school-based curriculum. To respond to this call, Mr. Xu immediately initiated the school-based curriculum in SY Middle School called *School Clubs*. After Mr. Xu proposed this idea, Backbone Teachers at SY Middle School began to plan the detailed operation. Apparently, in Mr. Xu’s view, Backbone Teachers at SY Middle School “could improve in owning creativity and the overall view of teaching and learning” in his school.

In addition, both Mr. Zhu and Mr. Xu believed that Backbone Teachers as leaders set the tone of the school culture. The principal indicated that when Backbone Teachers set good examples of always learning new knowledge and sharing ideas with others, more and more teachers could learn from them. Consequently, the whole school culture would become positive and collaborative. Mr. Zhu was very satisfied with the culture shaped by the Backbone Teachers at KM Middle School, while Mr. Xu thought the Backbone Teachers at SY Middle School should still work harder in shaping a positive and collaborative culture.

To summarize, Mr. Zhu was very satisfied with the Backbone Teachers' leading performance in KM Middle School. As he commented, "the Backbone Teachers' leadership made indelible contributions to the remarkable reputation and achievement of KM Middle School." Mr. Xu was not satisfied with the Backbone Teachers at SY Middle School in the aspect of having creativity, their overall view of teaching and learning, and their ability to shape a positive and collaborative culture. Much improvement in these three aspects for the Backbone Teachers in SY Middle School was needed.

Conditions for Developing Backbone Teachers

The theme of conditions for developing Backbone Teachers was classified into two general sub-themes: facilitating conditions and challenging conditions for the development of Backbone Teachers. Each sub-theme was comprised of different categories generated from the data pulled from the three cases, Backbone Teachers, non-Backbone Teachers, and principals. Tables 5.2, 5.3, and 5.4 separately show the categories and sub-themes for the conditions for developing Backbone Teachers based on data from the three cases.

Table 5.2

Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Backbone Teacher Participants

Themes	Sub-themes	Categories
Conditions for developing Backbone Teachers	Facilitating conditions	The desire to advance The principal's recognition and support Peers' respect and trust A positive and collaborative school culture
	Challenging conditions	Overloaded work with limited time Work stress Interpersonal conflicts

Table 5.3

Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Non-Backbone Teacher Participants

Themes	Sub-themes	Categories
Conditions for developing Backbone Teachers	Facilitating conditions	The desire to advance The principal's recognition and support Peers' respect and trust A positive and collaborative school culture
	Challenging conditions	Overloaded work with limited time Lack of a positive school culture

Table 5.4

Categories and Sub-themes for Conditions of Developing Backbone Teachers for the Principal Participants

Themes	Sub-themes	Categories
Conditions for developing Backbone Teachers	Facilitating conditions	Personal qualifications The principal's recognition and support Peers' respect and trust A positive and collaborative school culture
	Challenging conditions	Overloaded work with limited time Lack of a positive school culture

Backbone Teachers

Facilitating conditions. From the perspectives of the Backbone Teacher participants, four facilitating conditions for developing Backbone Teachers were noted. These facilitating conditions included the desire to advance, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture.

The desire to advance. All the Backbone Teacher participants stated that the first condition to become Backbone Teachers was “the desire to advance.” They pointed that only teachers who wanted to do a better job would have the chance of becoming Backbone Teachers. The Backbone Teacher participants all considered such a desire to advance as self-motivation that encouraged teachers to learn from experienced peers, to do research on instructional strategies and skills, and to reflect on how to improve one’s teaching ability and students’ achievement.

Based on their own descriptions of becoming Backbone Teachers, all the Backbone Teacher participants went through the similar striving experience with a sense of inspiration. They believed that compared to other teachers, teachers with such a desire would turn out to have advanced expertise. The advanced expertise was the foundation for becoming Backbone Teachers. Therefore, the Backbone Teacher participants all agreed that the desire to advance was significance to developing Backbone Teachers. After all, not every teacher had the same desire. Those teachers who were “muddling along obviously would never develop into Backbone Teachers,” as Ms. Li Shared.

The principal’s recognition and support. All Backbone Teachers at the school level were selected and later appointed into different positions or granted different titles by the principal. Backbone Teachers in the higher tier (i.e., district-level, city-level, province-level, and national-level) were selected by the higher-level educational departments from the Backbone Teachers in the lower tier. Therefore, earning the principal’s recognition was considered as a critical condition for developing Backbone Teachers by the participants.

According to the Backbone Teacher participants, “great” students’ achievement, good student and parent evaluations, Backbone Teachers’ recommendations, and excellent performance in teaching competitions were common factors that earned the recognition of the principal. Once the principal began to value a teacher, the teacher would assume extra duties and would be offered more opportunities to attend professional development projects, earn honorable titles, or be promoted. Soon, the teacher would be known as a Backbone Teacher and be appointed into a specific position or have a specific honorable title. All Backbone Teacher participants expressed that they were not surprised by their appointments, as they had been aware that they were valued by the principal for a while.

Once Backbone Teachers were appointed to leader positions, the principals showed Backbone Teachers their support. Mr. Shen and Ms. Gen at KM Middle School indicated that their principal was very supportive and empowered them to exert leadership to initiate activities related to curriculum and instruction. Ms. Li and Ms. Wang at SY Middle School implied that their principal always created conditions to strengthen their reputation, such as advocating their experience of winning places in competitions or letting everyone learn from them in public. Thus, in the Backbone Teacher participants’ view, developing Backbone Teachers always required the recognition and support from the principal.

Peers’ respect and trust. The Backbone Teacher participants emphasized the significance of a good relationship with colleagues for them to be able to exert their leadership. The Backbone Teachers asserted that their colleagues respected them, trusted them, and felt comfortable to communicate with them. The interactions during the lesson study meeting led by the department chair, Mr. Shen, showed a typical example. Teachers were debating whether a mathematics concept should be extended to an advanced level. Some teachers argued that this

knowledge point should be extended; otherwise, the concept could not be explained clearly and students might feel confused. Some teachers argued against the extension, because it would cost most of the class time to elaborate on a simple issue based on the eighth grade students' comprehension and there would be no time left for other mathematics concepts needed to be taught in that lesson. The teachers had a heated discussion and could not reach agreement at that time. Then the teachers stopped arguing and directly asked for Mr. Shen's opinion. Ms. Shen first eased off the tension in the meeting, then summarized the different opinions, and finally proposed his idea—teaching this concept without the extension at eighth grade but leaving the extension to teach at the ninth grade. As soon as his opinion was proposed, all the teachers with differing opinions nodded their heads to show their acceptance of Mr. Shen's solution.

Clearly, the teachers in the Mathematics Department respected Ms. Shen to let him decide. They trusted Mr. Shen's professional judgment and calmly accepted his proposal without any hesitation. The respect and trust from the teachers in the Mathematics Department further facilitated Mr. Shen's way of exerting leadership to resolve this disagreement and to finalize the instructional problem with a solution that would be implemented.

The positive and collaborative school culture. The Backbone Teacher participants at KM Middle School identified a positive and collaborative school culture as one condition for Backbone Teacher development. They were proud of the positive and collaborative culture in KM Middle School and considered the culture as an important reason why most Backbone Teachers would rather stay in KM Middle School than being at any other school in HA City. The observation data confirmed that most teachers including the Backbone Teachers at KM Middle School held positive attitudes toward their jobs, helped each other, and learned from each other. Mr. Shen described that he was highly influenced by such a positive culture that he

constantly reminded himself to become better. He also shared that he learned a lot from other teachers in such a collaborative atmosphere. Mr. Shen was now cultivating more potential Backbone Teachers in his department in such a positive and collaborative culture just as his elder Backbone Teachers did for him.

Ms. Gen candidly indicated that the school culture was quite different from her previous school. She really liked the current school culture, where everyone was willing to share and learn from each other. Ms. Gen thought that the growth of a Backbone Teacher definitely benefited from this kind of culture that further promoted Backbone Teachers to share ideas, collaborate with each other, and enact their leadership roles.

Challenging conditions. The Backbone Teacher participants noted three challenging conditions for the development of Backbone Teachers. These challenging conditions included the overloaded work with limited time, work stress, and interpersonal conflicts.

Overloaded work with limited time. The Backbone Teacher participants complained that they were expected to do much extra work with very little time. The “overloaded work” and “timing issue” were the two most frequently used phrases during the interviews. The Backbone Teachers at KM Middle School revealed that they usually bring their assignments home after school. Mr. Shen stated this issue with a wry smile:

There is even not much time for me to prepare my classes and grade students’ assignments. I still need to attend so many meetings, observe peers’ classes, and write feedback for them. I do not have any other solutions except for bringing my tasks home and working overtime to finish them.

Ms. Gen pinpointed that the overload of work had cost her so much energy and time that now her time and energy spent on instructional improvement was very limited. What she wanted most right now was to be left alone for a whole day so that she could completely concentrate on studying her lesson plan and contemplating teaching strategies.

Ms. Li and Ms. Wang at SY Middle School surfaced the same problem of overloaded work with limited time. They were ashamed to reveal that they had to stop observing teachers' classes and to use the saved time to finish other necessary and priority tasks. Mr. Li and Ms. Wang felt guilty because they were required to observe at least one teacher every two weeks, but they had no choice, considering there was so much work to be done and such limited time in which to complete it in SY Middle School.

Work stress. Extra work means extra responsibility. In response to the changes after they became Backbone Teachers, the Backbone Teacher participants had their individual answers. However, one thing was the same that all the Backbone Teacher participants felt the increased work stress. Since they became Backbone Teachers, the participants were not only responsible for the teaching in their own classrooms, but they also needed to take the teachers in their groups into consideration. Although very confident in their leadership within the classrooms, the Backbone Teachers were still concerned about their leadership of the teacher group. They were afraid that they might lead the wrong way, move forward in the wrong direction, or not see the whole picture.

The Backbone Teacher participants were clearly aware of what and whom they were accountable to when exerting their roles as leaders. Mr. Shen and Ms. Gen at KM Middle School both repeatedly mentioned the "responsibilities" and "pressures" they were always shouldering, and the "self-reflections" they were frequently making. Mr. Shen and Ms. Gen knew exactly that their decisions would not only affect their own students but also affect most teachers and those teachers' students in their departments. Ms. Li and Ms. Wang at SY Middle School shared the same sentiments on the increased work stress.

Interpersonal conflicts. Although all the Backbone Teacher participants claimed that they had a very good relationship with their principals as well as their peers, they considered interpersonal relationships as an area in which they felt the least competent as a Backbone Teacher. The Backbone Teacher participants admitted that sometimes they might bring some “uncomfortable” feelings to their colleagues. For instance, three of the four Backbone Teacher participants admitted that until now they still did not know the best way to deal with the senior teaching peers when they were allocating tasks that were perceived to be uninteresting. As Mr. Shen stated, he did “not want to raise disfavor” from his teaching peers, but sometimes he had to “make some tough decision” since he was the person in charge.

Overall, no one directly connected the interpersonal relationships between the Backbone Teachers and their teaching peers to the development of Backbone Teachers. However, based on the Backbone Teacher participants’ descriptions, the possible negative reaction from their colleagues more or less became a challenge for Backbone Teachers to exert their leadership. So far, the interpersonal conflict was still considered as a difficult problem the Backbone Teacher participants often needed to resolve.

The Backbone Teacher participants agreed that their relationships with the principals were much closer compared to non-Backbone teachers. After all, the Backbone Teacher was a type of “middle man” between the principals and their teaching colleagues. The Backbone Teachers delivered messages from their colleagues to the principal and relayed decisions from the principal to their colleagues. The communication which was supposed to be bidirectional usually was unidirectional—only from the principal to the teachers. According to the descriptions of Ms. Li and Ms. Wang’s, to a large extent, the communication in SY Middle School was a typical example of the unidirectional nature of communication. Ms. Li and Ms.

Wang expressed that they would not actively express the teachers' feedback about school decisions, because even if they did, there would be no reply from the principal. Ms. Li shared that there used to be one Backbone Teacher who represented the teachers to express some concerns to the principal, and then everyone "learned his lessons." Ms. Li did not elaborate what the "lesson" was exactly, but she clearly implied something bad had happened to that teacher.

The observation data from SY Middle School supported this claim that the communication was unidirectional—only from the principal to the teachers. Many teachers at SY Middle School including Ms. Li and Ms. Wang themselves had concerns about the new school-based curriculum called *School Clubs*, which was initiated by the principal at SY Middle School. But, neither Ms. Li nor Ms. Wang wanted to talk to the principal to give their feedback. They kept silent and waited for further orders from the principal.

The situation in KM Middle School was much better, as the principal tried to empower the Backbone Teachers to exert their leadership. Mr. Shen and Ms. Gen frequently had a meeting with the principal and reported on how things stood in their teacher groups. However, the content of their communication was mostly associated with the teachers' performance and the plans or activities related to the curriculum and instruction. Mr. Shen and Ms. Gen were very careful not to bother the principal with "other issues" (e.g., teachers had to grade assignments when observing others' model classes because of the limited time, or the bonus for teachers in KM Middle School in the Teachers' Day was much less than teachers in other schools, etc.). After all, it was the Backbone Teachers that would stand in front of the principal and confront the principal's discontent.

In general, the interpersonal conflicts between the Backbone Teachers and their peers and their principals might produce the negative reactions from the teaching peers and the principal in the school. The concerns on those negative reactions would negatively affect Backbone Teachers to be able to exert their leadership in their respective teacher groups.

Non-Backbone Teachers

Facilitating conditions. The non-Backbone Teacher participants presented the same understandings as the Backbone Teacher participants on facilitating conditions for developing Backbone Teachers. Similarly, in their eyes, the facilitating conditions included the desire to advance, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture.

The desire to advance. Three of the four non-Backbone Teachers shared that they were on the way to becoming Backbone Teachers, although they were not there yet. As Mr. Ming stated, becoming a Backbone Teacher meant "owning a relatively higher professional status" in the school, which represented "a sort of achievement of self-value" and "recognition from others." These three non-Backbone Teachers wanted to be great teachers with highly-skilled professional abilities compared to their colleagues. The non-Backbone Teachers believed that owning a desire to advance was the first step for them to become Backbone Teachers.

The three non-Backbone Teacher participants with such a desire were all younger teachers with a maximum teaching experience of seven years and a minimum teaching experience of four years. In contrast to those three younger participants, Mr. Han as a senior non-Backbone Teacher participant with 11 teaching years had a different opinion on such a desire. She mentioned that such a desire always cost time and energy, and the persons in those positions sometimes needed to sacrifice something or even fight with people. Her passion for

competing with peers had faded as Ms. Han grew older. Ms. Han thought that she was doing well presently and did not want to sacrifice anything or to fight with anyone.

The principal's recognition and support. All four non-Backbone Teacher participants came to the conclusion that the principal's recognition and support was a vital condition for developing Backbone Teachers based on their own experience or other's experiences observed by them. From her more than 10 year of teaching experience in the school, Ms. Han asserted that all current Backbone Teachers relied on the principal's approval and support. The processes for developing Backbone Teachers were the same in most schools: teachers with the desire and potential were first pre-selected, then they were offered various learning opportunities and given extra tasks, and then they were finally granted the official titles. Ms. Han had witnessed the development of many Backbone Teachers in the school.

Mr. Ming mentioned frankly that the words he wanted most to hear from the principal was "adding some burden," which implied that the principal began to value him and decided to impose some extra tasks on him. If everything went well, Ms. Ming would be offered opportunities for learning and be promoted with the titles of Backbone Teachers soon.

Mr. Yang also expressed that the principal's recognition was a vital factor for the development of Backbone Teachers. He was very confident in his instructional strategy that his students were divided into different groups teaching each other by themselves under his guidance. Mr. Yang proudly mentioned that his instructional strategy enabled the students to effectively master mathematics concepts and the achievement of his students was almost as good as the students taught by the Backbone Teachers. Mr. Yang also admitted that his instructional strategy might make the class seem like a mess, as students needed to leave their seats, to walk around, and to act like teachers. However, the current principal preferred that the school and the class be

arranged in a traditional manner and for the room and the student to behave in an orderly manner. Therefore, Mr. Yang complained that although his strategy was effective, it would not gain recognition from the principal, who consequently made his possibility of being a Backbone Teacher seem impossible.

Ms. Hu shared that compared to other peers she had been offered many opportunities to attend various professional development programs since she was selected to attend a teaching competition and gained first place last year. Ms. Hu was aware that it was an expression of the principal's recognition and support that enabled her to have those learning opportunities. She admitted that those professional development programs made her instructional knowledge and skills much improved and made her more ready for becoming a Backbone Teacher.

Peers' respect and trust. All the non-Backbone Teachers agreed that the respect and trust of peers was another positive condition for Backbone Teacher development. As Ms. Han stated:

If a Backbone Teacher in charge cannot have peers' respects and trusts, how will he or she successfully implement the leading job? In that case, teachers might ignore his or her orders or instructions and might even directly turn against him or her.

Mr. Ming stated that the principal would not nominate a teacher to become a Backbone Teacher who was marginalized in the teacher group or had bad relationships with peers. Otherwise, Mr. Ming commented that appointing a person who did not have positive relationships with his or her peers would "obviously do harm to the solidarity and development of the teacher group."

So far, all the non-Backbone Teachers remarked that they had a good relationship with their colleagues. However, except Ms. Han, three younger non-Backbone Teacher participants were still trying hard to win respect and trust from their peers through proving their qualifications to others. Ms. Hu had made some progress. She felt more recognition and respect from her colleagues since she won the first place in the city-level teaching competition last year.

In the Chinese culture, the elderly represent wise people with rich experience who deserve much respect from the young. Ms. Han, as a relatively experienced teacher with 11 years of teaching experience, had already earned respect within the ideology embedded in the Chinese culture of respecting the elderly. However, the respect shown to her could not be compared to the respect shown to Mr. Shen, as the Mathematics Department Chair. In the department meeting, Ms. Han's opinion was different from Mr. Shen's on how to teach a mathematics concept. After Mr. Shen revealed his thoughts, the teachers on Ms. Han's side immediately accepted Mr. Shen's idea without any hesitation, which displayed the full respect and trust an honored Backbone Teacher had earned from his peers.

A positive and collaborative school culture. Another facilitating factor for developing Backbone Teachers identified by the non-Backbone Teacher participants was a positive and collaborative school culture. The non-Backbone Teacher participants at SY Middle School especially emphasized the significance of a positive and collaborative school culture. They indicated that most teachers in SY Middle School had no strong desire to advance. In Mr. Ming's words, those teachers were only "drifting along" in the school. Mr. Yang admitted with embarrassment that although he wanted to be better, he sometimes would become "lazy" and "sloppy" when he saw his colleagues all muddling along. Mr. Ming expected the Backbone Teacher to play a major role in shaping a positive school culture, so that more teachers would be positively influenced and want to be Backbone Teachers in SY Middle School.

Ms. Han and Ms. Hu at KM Middle School both proudly indicated that considering the fact that KM Middle School was the top one middle school in HA City, generally speaking, teachers hired at KM Middle School had better qualifications and the whole school culture was much more positive and collaborative compared to other schools in the city. As Ms. Han shared,

“Teachers would be willing to exchange ideas and experiences, to learn from each other, and to promote professional development only in a positive and collaborative culture.” Ms. Han and Ms. Hu both commented that within a positive and collaborative culture, more teachers would have enough qualifications for becoming Backbone Teachers, and the current Backbone Teachers could better exert their leadership.

Challenging conditions. The non-Backbone Teachers noted two negative conditions that might challenge the development of Backbone Teachers. Those negative conditions included the overloaded work with limited time and the lack of a positive school culture.

Overloaded work with limited time. One condition mentioned by the non-Backbone Teacher participants that might negatively influence their desires to become Backbone Teachers was the overloaded work coupled with limited time. As Ms. Han stated, so far her time was “barely enough to prepare lesson plans, grade students’ homework, and make all kinds of tests and exams.” In fact, Ms. Han sometimes even needed to spend her spare time studying the textbook, which always interested her most. Ms. Han could not imagine how she would deal with an overload of work with the same schedule after she witnessed Mr. Gen in the same office so busy with other administrative or research tasks beyond regular teaching jobs. Ms. Han was worried about the teaching effects in her classroom if she was confronted with less energy and less time spent on her regular teaching tasks.

The other three non-Backbone Teachers also showed some concerns about the issues of overloaded work with limited time. They were not sure how well they could manage the time to deal with such overloaded tasks if they became Backbone Teachers.

Lack of a positive school culture. The two non-Backbone Teacher participants at SY Middle School frankly indicated that the school culture was not positive. Mr. Yang and Ms. Ming considered the lack of a positive school culture was a most critical factor challenging the development of Backbone Teachers in SY Middle School. And they shared:

I want to become a better teacher, so I spent more time on studying curriculum and instruction, actively observed experienced teachers' classes, and tried new strategies I learned from others in the class. Certainly, all these cost much of my time and energy. But the fact that most of my colleagues lazed about all day caused a very negative influence. It made me doubt myself whether it is worth being so busy and tired. It would awake my lazy nature and enable me to drift along like everyone else. (Mr. Yang)

When we gathered together, if most people want to chat about TV plays instead of how to improve students' achievement, I cannot stand against them; otherwise, I would be marginalized by the whole teacher group. I don't think such a culture would promote the development of Backbone Teachers and it would only worsen the positive impact made by Backbone Teachers. (Mr. Ming)

The non-Backbone Teacher Participants at KM Middle School did not mention the culture issue. Indeed, the culture in KM Middle School was more positive compared to SY Middle School, which was reflected on the descriptions of the non-Backbone Teachers at KM Middle School. As Ms. Han at KM Middle School mentioned, although she would not want to spend time engaging in the overloaded work, she would still like to spend her spare time on studying textbooks and learning about instructional strategies. Ms. Hu, as a potential Backbone Teacher, actively improved her professional ability in her spare time. Otherwise, she could not be recommended by the English Department Chair and selected to attend teaching competitions. And Ms. Hu felt "lucky," because as far as she knew, all her teaching peers were actively improving their instruction in their spare time so as to be ready for teaching competitions.

Therefore, participants at KM Middle School did not have such a culture issue. But for participants at SY Middle School, the lack of a positive culture negatively influenced them about their efforts to become Backbone Teachers.

Principals

Facilitating conditions. Compared to the Backbone Teacher participants and the non-Backbone Teacher participants, the principal participants had a similar understanding on the facilitating conditions for developing Backbone Teachers. In the sight of the principal participants, the facilitating conditions included the following factors: personal qualifications, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture.

Personal qualifications. Both principals identified the personal qualifications as the first condition for becoming Backbone Teachers. In their view, the personal qualifications included the desire to advance and having expertise in teaching. As Mr. Xu shared, "Backbone Teachers need to have the desire to advance; in that case, Backbone Teachers can always want to learn to become better." To answer how to evaluate a teacher's expertise, Mr. Zhu shared that a teacher's expertise could be embodied in "the student achievement," "the other experts' recommendations," "winning awards or honors in the teaching field," "the class demonstration," and "the teacher's research publications related to curriculum and instruction." Mr. Xu gave a similar answer. Mr. Zhu and Mr. Xu both indicated that the prospective Backbone Teachers were not expected to be the best in those areas. But the key point mentioned by the two principals was that the prospective Backbone Teachers needed to let the principals see their potential for leadership in these areas because becoming Backbone Teachers is a gradual process.

The principal's recognition and support. The two principals admitted that if a teacher had the desire to advance and the potential for building expertise about teaching and learning, he or she would attract the principals' attention. The principals would then assign extra tasks for this teacher to see whether this teacher might be capable of the job and follow up on the

principals' ideas. If so, the principal would begin to value this teacher and offer opportunities for attending learning programs or winning awards or titles related to teaching affairs. As Mr. Xu shared:

If I value a teacher, I will provide all kind of support to cultivate him or her to be a great Backbone Teacher and help him or her to boost his or her professional status. For example, recently, I am planning to support the current Chinese Department chair to gain the title of *Teacher of Special Grade* at the city level. To gain that title, the candidate needs to have experiences in some higher level training programs beyond the district level, to have some paper published in the core journals at the city level, and to host some projects beyond the district level. To meet those requirements, I sent him to attend the province-level professional development projects to learn new knowledge and perspectives, contacted some relevant journal editors for him, and appointed him to a project director position to lead a city-level research project in our school.

Apparently, Mr. Xu spared no effort to support the development of a Backbone Teacher that he thought highly of in this situation.

Mr. Zhu shared the similar idea. He indicated that all the Backbone Teachers were “the valued teachers” that were selected by the principal. Mr. Zhu identified himself as “a general servant” to provide support for the development of all the teachers especially the Backbone Teachers. If the time was appropriate, Mr. Zhu would exert the precious and limited educational resources held by him (e.g., the opportunities for attending some learning programs, winning awards and titles, and being promoted) to support the development of Backbone Teachers in his school. Apparently, Mr. Zhu's recognition and support was vital for Backbone Teachers to develop in KM Middle School.

Peers' respect and trust. The principals considered peers' respect and trust as the third condition for Backbone Teachers' development. The principals indicated that when they pre-selected Backbone Teacher candidates, the teachers with poor relationships with their peers would not be considered. As Mr. Xu explained, “If a Backbone Teacher could not earn peers'

respect and trust, no one would buy into what the Backbone Teacher said.” Mr. Zhu agreed about the importance of earning peers’ respect and trust, by sharing:

Usually, the Backbone Teachers’ outstanding expertise and their good moral traits would always win colleagues’ respect and trust. If a teacher with good expertise has a bad relationship with colleagues, it will be difficult for him or her to convince colleagues to follow his or her lead after he or she becomes a Backbone Teacher. In that case, it will be pointless for developing such a Backbone Teacher in the school.

In brief, both principals took peers’ respect and trust into account to developing Backbone Teachers. Moreover, with the peers’ respect and trust, Backbone Teachers could be able to exert their leadership.

A positive and collaborative school culture. Another facilitating condition for Backbone Teacher development emphasized by the principals was a positive and collaborative school culture. Mr. Zhu identified a positive and collaborative school culture as his “trump card” for developing Backbone Teachers in KM Middle School. He explained it as follows:

Within such a positive and collaborative school culture, Backbone Teachers are willing to learn new knowledge, to exchange new ideas, and to share experiences with their colleagues. And Backbone Teachers and their colleagues can learn from each other and both improve their professional knowledge and skills. Consequently, within such a culture, Backbone Teachers will gain more respect and trust from their group members and be able to exert their leadership. And more teachers will have good enough qualifications for becoming Backbone Teachers.

Mr. Zhu believed that “such a school culture created a strong sense of belonging for all teachers in KM Middle School.” Mr. Zhu shared that he accidentally overheard the Backbone Teachers saying good words about the culture in KM Middle School in front of teachers in other schools several times when he attended some conference or training programs with the Backbone Teachers. Mr. Zhu appreciated that Backbone Teachers at KM Middle School showed strong feelings about the school culture.

Mr. Xu shared the same understanding with Mr. Zhu on how a positive and collaborative school culture could foster the development of the Backbone Teachers. Mr. Xu indicated that the better the school culture was the more prospective Backbone Teachers would develop.

In brief, the positive and collaborative school culture was an important condition to develop Backbone teachers from the perspectives of principals in two schools. Without a positive and collaborative school culture, potential Backbone Teachers might not emerge.

Challenging conditions. The principal presented two conditions that challenged the development of Backbone Teacher. These conditions included the overloaded work with limited time, and lack of a positive school culture.

The overloaded work with limited time. Both principals thought that the overload of work with limited time for completion might have a negative influence on the development of Backbone Teachers. The principals mentioned that Backbone Teachers were always given extra tasks beyond their teaching in the classroom. Therefore, as Mr. Zhu stated, “how to appropriately arrange tasks and manage time” was usually the first problem Backbone Teachers would face. As a matter of fact, according to the principals, the Backbone Teachers had a spirit of dedication to their schools. The Backbone Teachers usually would choose to sacrifice their daily spare time or weekends to bring assignments back home or to stay late in the office to work overtime. However, as Mr. Xu indicated:

Backbone Teachers as normal persons also have families. Their family members also need them. This kind of sacrifice usually might cause some conflicts between family and work. It might negatively influence some teachers, especially female teachers in becoming Backbone Teachers, as female teachers usually pay more attention to their own families than male teachers.

Mr. Zhu added that beside the time conflicts between work and family, how to arrange the overloaded work within the limited time was another problem. Having the same work schedule, there was no question that Backbone Teachers did not have enough time to focus on their teaching in the classroom. Because of worrying about the time actually spent on regular teaching duties, some teachers might not choose to become Backbone Teachers and thereby assume extra duties. Ms. Han, the non-Backbone Teacher participant in this study, was a typical example who had no aspirations to be a Backbone Teacher.

Lack of a positive school culture. Mr. Xu, as the principal of SY Middle School, identified a “bad” school culture as a challenging condition for developing Backbone Teachers. He frankly admitted that the current school culture at SY Middle School was not as positive and collaborative as the cultures at KM Middle School. Mr. Xu thought “this (the culture) was one reason why Backbone Teachers at SY Middle School were not as good as Backbone Teachers at KM Middle School.” Mr. Xu ascribed the current school culture to the fact that there were many teachers in SY Middle School who did not have the desire to advance to the level of Backbone Teachers. Mr. Xu shared, “Those teachers had no ambition in the work and shaped the whole school culture as not being positive.” As a result, it was hard to develop Backbone Teachers among teachers.

In the meantime, it was also hard for Backbone Teachers to exert their leadership in the group with many teachers who held negative attitude toward teaching and learning. Mr. Xu expressed that there was a long way for him to go and the Backbone Teachers at SY Middle School to go to change the current school culture.

Mr. Zhu, as the principal at KM Middle School, did not mention the school culture issue in answering the questions of challenging conditions for developing Backbone Teachers, as the school culture in his school was very positive. However, Mr. Zhu's emphasis on a positive and collaborative school culture as a facilitating condition for the development of Backbone Teachers implied that the lack of a good school culture definitely would be a challenging condition for developing Backbone Teachers in the school. In brief, with a positive school culture, Backbone Teachers would be better developed; while without a positive school culture, it would be difficult for Backbone Teachers to develop.

Impact of Developing Backbone Teachers

The theme of the impact of developing Backbone Teachers was divided into four sub-themes: the impact on Backbone Teachers themselves, the impact on peers, the impact on students, and the impact on the school. Each sub-theme was composed by different categories generated from data from the three individual cases, Backbone Teachers, non-Backbone Teachers, and principals. Table 5.5, shows the categories and sub-themes for *Impact of Developing Backbone Teachers* based on data from Backbone Teachers. Table 5.6 shows the categories and sub-themes for *Impact of Developing Backbone Teachers* based on data from non-Backbone Teachers. And Table 5.7 shows the categories and sub-themes for *Impact of Developing Backbone Teachers* based on data from principals.

Table 5.5

Categories and Sub-themes for Impact of Developing Backbone Teachers for the Backbone Teacher Participants

Themes	Sub-themes	Categories
Impact of developing Backbone Teachers	Backbone Teacher themselves	Increased income, credits, and awards More recognition Improved instruction and leadership knowledge and skills More self-reflection Subtle relationship with peers Closer relationship with administrators
	Peers	Helping and supporting Positive impacts with doubts
	Students	Students' achievement
	The school	Meaningful activities such as <i>Mathematics Festival</i>

Table 5.6

Categories and Sub-themes for Impact of Developing Backbone Teachers for the Non-Backbone Teacher Participants

Themes	Sub-themes	Categories
Impact of developing Backbone Teachers	Backbone Teacher themselves	Credits, awards, and extra income Opportunities for learning and promotion
	Peers	Helping solve problems, Promoting peers' professional development, Subtle relationships
	Students	No direct link
	The school	Being a vehicle for publicity

Table 5.7

Categories and Sub-themes for Impact of Developing Backbone Teachers for the Principal Participants

Themes	Sub-themes	Categories
Impact of developing Backbone Teachers	Backbone Teacher themselves	Benefit of becoming Backbone Teachers Responsibility and sacrifice
	Peers	Positive impacts
	Students	Student achievements Student activities
	The school	School culture School reputation

Backbone Teachers

Impact on Backbone Teachers. Backbone Teacher participants expressed that since becoming Backbone Teachers, they gained increased income, credits, and awards, more recognition from themselves and others, improved instruction and leadership knowledge and skills, and increased self-reflection. Their relationships with peers have become subtle and their relationships with administrators have become closer.

Increased income, credits, and awards. Becoming a Backbone Teacher could bring financial and spiritual benefits. The Backbone Teacher participants in this study assumed different positions, including department chairs, supervisors, and department chairpersons for specific grades. And Backbone Teachers all have different honorable titles, including Academic Leader, Teaching Master, and Teaching Expert. Those titles represented the Backbone Teachers' instructional abilities and gave them professional credit that they were masters in teaching and experts in curriculum and instruction.

SY Middle School implemented a performance-related pay system. A teacher's position and title were considered as performance variables and quantized with weights, which were accounted into one's final income. Therefore, the Backbone Teachers apparently could earn a higher income than the non-Backbone Teachers in SY Middle School. In KM Middle School, there was no difference in teachers' salaries. However, winning titles was often accompanied by awards provided by KM Middle School as a type of encouragement and as a way to motivate teachers.

As for the Backbone Teachers in both KM Middle School and SY Middle School, credits instead of awards or increased income, were more significant to them. As Mr. Shen mentioned, "the increase income" or "the awards" were actually "too little, not worth mentioning," while "the credits" were "much valued," because they represented "a sort of recognition" from peers and from the principals.

More recognition. Becoming a Backbone Teacher represented a type of recognition by the principal, because Backbone Teachers were selected by the principal and appointed by the administrative department of education at different levels. Compared to non-Backbone Teachers, the principal would impose more responsibilities and more tasks on the Backbone Teachers, which further earned more recognition from the principal. Ms. Wang at SY Middle School stated, "It (becoming a Backbone Teacher and assuming the tasks involved with the position) is a good thing. It means the principal thinks highly of you."

Besides the recognition from the principal, Backbone Teachers received more recognition from themselves, and from their peers. Mr. Shen at KM Middle School described his own spiritual experience when he shared:

I was appointed to the department chair directly from the principal. I felt lucky, because I did not think I was better than others, and there were several peers as good as me during that period. But, when I was in charge of the entire Mathematics department for a while, I did believe that I was doing a good job in this position...In addition, the application for the honorable title of city-level Academic Leader was sort of a test to test how good my ability would be. When I did gain this title, it was like a fulfillment of self-value. And since then, my peers have showed more respect and recognition, for only a few teachers could have that title and I was one of them.

The other three Backbone Teachers expressed a similar view. After all, for any Backbone Teachers, there is always a transition process from being a non-Backbone Teacher to a Backbone Teacher. Usually, the prospective Backbone Teachers might only have the potential for increased expertise. Then their performance became better and better through attending more training programs and participating in teaching competitions. The recognition from themselves and from their peers was constantly increased during the process of becoming Backbone Teachers.

The observations during lesson study meetings held in the two schools also confirmed such recognition from Backbone Teachers' peers. If there were questions or confusions about the curriculum or lesson plans, teachers with different opinions argued heatedly in the meeting. But, when the Backbone Teacher expressed his or her opinion, most teachers quickly supported the Backbone Teacher, and no one showed disagreement when the final word was spoken by the Backbone Teacher. Obviously, the words of the Backbone Teacher weighed more than non-Backbone Teachers especially in matters related to the curriculum and instruction.

Improved instruction and leadership knowledge and skills. Becoming a Backbone Teacher meant assuming extra responsibilities and tasks beyond teaching. Backbone Teachers were in charge of a group of teachers. Their leadership skills quickly improved because of the imposed duties Backbone Teachers were expected to fulfill. All of the Backbone Teacher participants more or less mentioned that sometimes it was difficult to deal with the relationships

with their peers. Mr. Shen directly indicated that dealing with interpersonal relationships was his weakness as a leader. But no matter how difficult it was in dealing with interpersonal relationships, Mr. Shen still needed to handle this issue; otherwise, he could not fulfill his duties. As Mr. Shen described, “I learned from my own lessons and improved myself in this position gradually.” Thus, although much improvement was still needed, the Backbone Teacher participants all felt their leadership skills improved. As Ms. Li mentioned that she had “made some progress in the leadership area” and Ms. Wang mentioned that she had “become smarter in this position.”

Backbone Teachers were expected to be leaders with solid instructional knowledge and skills compared to their teaching peers. Backbone Teachers were often offered opportunities to attend various training programs. As Ms. Gen described, some professional development program functioned as “a real eye-opener,” which provided her “a brand-new perspective of teaching.” As a result, Backbone Teachers learned those new skills, adjusted their original instruction in class, and demonstrated those new skills in model classes for the whole school. In Ms. Shen’s words, “Backbone Teachers needed to get better first in the instructional field, and then, lead the rest.” Therefore, improved instruction and leadership knowledge and skills could be considered as professional benefits for Backbone Teachers.

More self-reflection. All the Backbone Teachers expressed that they were more involved in self-reflection after they became Backbone Teachers because they had more factors to consider compared to their peers. For instance, Mr. Shen was afraid of “not doing a good job as a role model” or “leading the wrong way for the teacher group.” The Backbone Teacher honor always reminded Ms. Gen that she needed to “figure out a better way of teaching.” The

Backbone Teacher responsibilities enabled Ms. Li to reflect constantly on “how to initiate new activities” and “how to lead the growth of the whole group.”

All four Backbone Teacher participants indicated that becoming Backbone Teachers strengthened their awareness of learning because they were offered more learning opportunities compared to non-Backbone Teachers. As Ms. Shen indicated, “The more training programs I participated in, the more I realized so many new ideas I still need to learn.”

In addition, the leaders’ duties also made Backbone Teachers spend more time on thinking and reflecting. Ms. Li at SY Middle School illustrated her self-reflection, by stating:

If I were just an ordinary teacher, the only thing I would need to consider was how to teach my students well. When I learned some good instruction strategies or skills, I only needed to think how to apply them to my class. But, now I am the deputy department chair, I also need to consider how to advocate the application of these new instruction strategies and skills to my peers and make them buy in.

Mr. Shen, as the Mathematics Department Chair at KM Middle School shared the similar opinion. Mr. Shen needed to figure out by himself the new activities and map out new plans for the whole Mathematics Department with other teachers giving feedback at KM Middle School. All of the Backbone Teacher participants were aware that their decisions more or less affected the development of the teacher group under their lead. Therefore, constantly reflecting on their learning and their duties became a necessary part of Backbone Teachers’ life.

Subtle relationships with peers. All four Backbone Teacher participants claimed that they still maintained good relationships with peers after they became Backbone Teachers. However, they also admitted that subtle changes occurred with their relationships with non-Backbone Teachers.

First, Backbone Teachers had to confront some tough relationship with peers, especially the elder peers. In the Chinese culture, the elderly represent wise people with rich experience who deserve much respect from the young. Making their elder peers uncomfortable might lead to a bad reputation for Backbone Teachers since there was a culture of respecting the elderly in China. Ms. Li indicated that it was hard for her to assign tasks to her older peers because usually her older peers would ask whether she could do it for them if the task was complicated or boring to them. Ms. Wang used the word “embarrassed” to describe the feelings she felt when she had to give lectures to her elder peers who all had more experience than her. Mr. Shen shared that he “tried his best not to bother older peers.” He would “fully consider their condition” and “assign the younger peers more tasks.” Mr. Shen added that his younger peers would usually accept his assignments without any complaints because everyone understood the culture of respecting the elderly. Ms. Gen had no such a problem because she was an older teacher with 23 years of teaching experience.

Secondly, Backbone Teachers might be envied by their peers. Backbone Teachers would have more opportunities to attend higher-level professional development programs or teaching competitions; as a result, Backbone Teachers might win more titles, awards, or credits than non-Backbone Teachers. This situation might raise some uncomfortable feelings from their peers. As Ms. Wang stated, “I had some concerns about some dissatisfaction feelings from my peers” because they never had as many opportunities as I did. Therefore, always keeping “a low profile” was the unified response for all Backbone Teacher participants on how to deal with peers’ envious feelings. Certainly, those titles, awards, and credits could also bring more recognition from non-Backbone Teachers.

Thirdly, Mr. Shen at KM Middle School indicated that since he assumed his Backbone Teacher position as a department chair, his relationships with peers was “sometimes a little bit closer, and sometimes a little further.” As for the “closer” issue, Mr. Shen’s conjectures were as follows, “It is right and proper to observe my classes, to consult me on questions, and ask me to supervise teaching without being concerned about bothering me too much, which makes my relationship with peers more casual.” In addition, since Mr. Shen and Ms. Gen had power over recommendations, teachers who wanted to get recommendations usually might interact with Mr. Shen and Ms. Gen frequently. As for the “farther” issue, as Ms. Shen stated, now that he was considered “a leader in the teacher group,” more or less, the peers under his lead might “keep their distance” from him on some occasions.

An example of this closer / further relationship became perfectly comprehensible in a teacher testing activity, which was a traditional staff development activity at KM Middle School. Mr. Shen as the Mathematics Department Chair created a mathematics exam paper for all the other teachers in his department to complete. After the teachers finished taking the exam, Mr. Shen graded their tests and directly reported the scores to the principal. After taking the exam, the teachers in the Mathematics Department gathered together and complained about how difficult the exam had been. But no one dared to sit around Mr. Shen’ and openly talk to him about the exam. Later, after school, most of them stopped by Mr. Shen’s office and asked about their individual scores privately. Someone who might not get a good score even begged Mr. Shen to put in some good words when Mr. Shen reported the scores to the principal. Obviously, Mr. Shen’s peers first kept their distance from him because Mr. Shen was the leader testing their knowledge, and then, they interacted personally with Mr. Shen because Mr. Shen’s words carried weight as he reported to the principal.

Basically speaking, except for more respect and recognition, Backbone Teachers were appointed to specific positions, which sometimes elicited uncomfortable feelings from their peers. In the meantime, their relationship with peers had become subtle, sometimes a little bit closer and sometimes distanced.

Closer relationships with administrators. All four Backbone Teacher participants admitted that their relationships with administrators had become closer since they became Backbone Teachers. They stated that closer relationships with their administrators brought them pressure as well as opportunities. As Mr. Shen claimed, this closer relationship was “a type of sweet burden.”

Backbone Teachers were offered more opportunities for promotion and learning by the principals compared to non-Backbone Teachers because of their closer relationships with administrators. Backbone Teachers were valued by the principal, and once some positions in the school opened up, their names would absolutely be on the candidate list. Mr. Shen at KM Middle School shared that he was offered the position of grade director four years ago. He worked in that position for two years but eventually quit and continued to work in the department chair position until now.

In addition, compared to non-Backbone Teachers, Backbone Teachers had more access to educational resources and information. For example, there were only one or two teachers in the whole school who could attend the province-level or national-level professional development projects. Usually, only Backbone Teachers that held higher status positions in the school would be offered these opportunities by the principal, and the other teachers were not even aware of such higher-level projects. The levels of training programs teachers attended coincided with the status of the teachers in the schools. At KM Middle School, Mr. Shen, as the Mathematics

Department Chair, had attended several national-level training programs, while Ms. Gen, as the English Chairperson for the eighth grade, had attended province-level training programs.

Similarly, at SY Middle School, Ms. Li, as the Deputy Chinese Department Chair, had attended province-level training programs, while Mr. Wang, as a Mathematics Chairperson for the ninth grade, had attended only city-level training programs.

The closer relationships with administrators had also added pressure to Backbone Teachers. Backbone Teachers were assigned various positions in the schools accompanied with extra responsibilities beyond teaching their own classes. Mr. Shen, as the Mathematics Department Chair, cited one example to describe his accountability and the associated additional pressure. Every year, there were different kinds of teaching competitions for younger teachers. Mr. Shen needed actively to provide guidance and supervision for the individual teachers in the Mathematics Department who were selected to participate in the teaching competitions because the selected teachers were representing the Mathematics Department at KM Middle School. If the teachers failed in the competition, Mr. Shen would face the doubts from the administrators that he did not choose the proper candidates or he did not help the teachers prepare well enough.

Mr. Li, Ms. Gen, and Ms. Wang all expressed that they faced a majority of the pressure from administrators when something went wrong. In the schools, the principals did not have much interaction with the non-Backbone Teachers unless the situation was very serious. Therefore, when something went wrong, the administrator would first talk to the Backbone Teachers, and then, let Backbone Teachers communicate with the involved teachers to figure out an appropriate solution. Although this was not the fault of the Backbone Teachers, they still faced criticism from the administrator, because the involved teacher was under their leadership.

Undoubtedly, becoming Backbone Teachers would bring Backbone Teachers themselves into closer relationships with their administrators. Such relationships could offer Backbone Teachers more access to valuable educational resources, including higher-level learning programs and promotion opportunities. And it could bring them a great deal of pressure and criticism, as well.

Impact on peers. All Backbone Teacher participants held positive attitudes toward their impact on non-Backbone Teachers. But they had different opinions as to what degree these impacts were imposed on their peers. Mr. Shen and Ms. Gen at KM Middle School argued that Backbone Teachers have significantly positive impact on peers. Ms. Li and Ms. Wang at SY Middle School argued that the impact depended on the learning awareness of the individual teachers. Ms. Li and Ms. Wang expressed that if teachers were eager to learn things, the positive impact would be to a greater extent; otherwise, such a positive impact on their peers might not exist.

To prove their positive impact, Mr. Shen and Ms. Gen at KM Middle School talked about their own experiences to provide examples. When they were non-Backbone Teachers, Mr. Shen and Ms. Gen learned a great deal from the previous department chairs who were Backbone Teachers. Ms. Shen and Ms. Gen observed the previous department chairs' classes, asked for solutions to their problems, and were given valuable advice by the previous department chairs. Because of the help and recommendations from the previous department chairs, Mr. Shen and Ms. Gen were able to advance in their occupations, and, ultimately, to their current leader positions. Ms. Shen and Ms. Gen believed that because they were doing the same things with their peers that the previous department chairs had done with them, their peers definitely benefited from them.

The observation data at KM Middle School also confirmed the positive impact on Backbone Teachers' peers. As a matter of fact, the occurrences of teachers turning to Mr. Shen and Ms. Gen for help were repeatedly observed, no matter in a meeting or just through daily interaction. In addition, Mr. Shen and Ms. Gen were responsible for selecting teacher candidates for various teaching competitions and supervising the teachers' instructions. The observation data showed that Mr. Shen spent a half morning supervising a young mathematics teacher who would be demonstrating a mathematics lesson at the upcoming city-level teaching competition. Mr. Shen provided plenty of advice down to the last detail after he listened and observed the young teacher's first demonstration. The younger teacher immediately accepted most of Mr. Shen's advice and asked Mr. Shen for more suggestions to apply to her second demonstration. Because of Mr. Shen's recommendations, the young teacher had the chance to participate in the competition, and because of Mr. Shen's supervision, the young teacher would have a better chance to win the competition. It was evident that Backbone Teachers had significant impact on their teaching peers at KM Middle School.

Ms. Li and Ms. Wang at SY Middle School expressed that they benefited from the Backbone Teachers since they were non-Backbone Teachers. However, this was because Ms. Li and Ms. Wang were trying to improve their teaching and to pursue their professional growth. If Ms. Li and Ms. Wang were like many other non-Backbone Teachers at SY Middle Schools, they might not bother to do those things, including actively observing model classes demonstrated by Backbone Teachers, asking questions often, or constantly seeking feedbacks. In fact, the observation data showed that compared to KM Middle School, the school culture in SY Middle School was not very collaborative mainly because the teachers at SY Middle School were working in isolation. For instance, the teachers selected to participate in teaching competitions

prepared alone at SY Middle School. The Backbone Teachers would not actively provide advice unless the teachers asked for it. Ms. Li illustrated the possible impacts of Backbone Teachers on peers by stating:

As a deputy department chair, I shared what I learned from the training programs, but I could not force my peers to accept my way. You know, learning and changing always cost time, energy, and even trouble. It's up to them to decide whether to adopt my advice. Therefore, only teachers who wanted to pursue professional growth would actually learn what I shared with them. So I cannot say that I absolutely have had great impact on my peers. But I did my job and I hope I could impact them positively.

Ms. Wang had a similar view. She admitted that she was doing a good job as a role model, and she loved to answer peers' questions. However, the truth was that Ms. Wang could not push her peers to ask her questions, and she was not sure her peers really learned something from her.

In summary, all of the Backbone Teachers agreed that they had positive impact on their teaching peers, but they had disagreements on how strong their impact was. Backbone Teachers at KM Middle School believed that they had had extensive and positive impact on their peers in the aspect of helping solve problems, supporting their professional growth, and making recommendations. The observation data also suggested this kind of impact. Backbone Teachers at SY Middle School believed that they had only had great impact on teachers who wanted to learn, but they felt that their efforts were in vain with teachers not wishing to improve or advance in their status.

Impact on students. The most proud accomplishment for all the Backbone Teacher participants was the growth of their students, which was also the biggest reason why they strongly believed that they indeed gained knowledge and made improvements after attending various training programs. The Backbone Teachers described how they implemented a new learned teaching strategy to attract more students' interests or to make students understand more easily. Mr. Shen and Ms. Gen at KM Middle School had confidence that the positive impact had

not only shown in their own students but also in the students in their peers' classes, as well. Ms. Li and Ms. Wang at SY Middle School could only make sure their own students benefited from their improved instruction after attending various training programs.

At KM Middle School, when a Backbone Teacher received professional learning opportunities to improve their strategies or skills, the collaborative atmosphere and positive school culture at KM Middle School enabled such strategies or skills to quickly spread from Backbone Teacher to non-Backbone Teachers. Eventually, most students would be taught by their teacher using such strategies or skills. The Backbone Teachers at KM Middle School proudly asserted that they truly implemented a balanced education because the difference in the average student achievement in each class for each individual subject was less than 2 points out of 100 points, and the achievement of students at KM Middle School were always ranked at the top for the entire city. However, at SY Middle School, the difference in average student achievement could reach more than 10 points out of 100 points. Obviously, not all of the students benefited from the improved instruction demonstrated by Backbone Teachers at SY Middle School.

Impact on the school. Only one participant, Mr. Shen, at KM Middle School, mentioned the impact of developing Backbone Teachers on the school. Ms. Shen claimed that the *Mathematics Festival* he designed and organized two years ago demonstrated such a good example of extracurricular activities for students that other department chairs imitated this activity, and finally, it officially become a traditional activity for each department at KM Middle School. The school documents recorded detailed procedures on when and how to implement the *Mathematics Festival*, *English Festival*, and *Chinese Festival* at KM Middle School. It even became a cross-school activity this year. The principal would invite students and teachers from

other schools to participate in these festivals. He indicated that there were many other student or staff development activities created by current or previous Backbone Teachers. Their creativity had always shaped the success of the school.

Non-Backbone Teachers

Impact on Backbone Teachers. Non-Backbone Teacher participants all asserted that Backbone Teachers themselves benefited from becoming Backbone Teachers. Backbone Teachers as a general term represented an excellent teacher group. Therefore, as Mr. Ming commented, being Backbone Teachers meant “higher professional status in the school,” accompanied by “all kinds of credits, awards, and extra income,” and “more valuable opportunities for learning and promotion.”

Credits, awards, and extra income. Ms. Hu, as a non-Backbone Teacher at KM Middle School, mentioned that last year she won first place in a city-level English teaching competition. And then, at the end of last semester, the English Department Chair and the seventh grade English Chairperson were both given credits for leading “the best group,” because Ms. Hu was a member of the group under their lead. Ms. Han, another non-Backbone Teacher at KM Middle School, indicated that Backbone Teachers like Mr. Shen were required to demonstrate a model class to the society each year which easily engendered a good reputation and credits for the Backbone Teachers from teachers in other schools.

Mr. Ming and Mr. Yang, as non-Backbone Teachers at SY Middle School, indicated that Backbone Teachers received an increase to their income. According to the criteria of the performance-related pay system at KM Middle School, the positions and titles of Backbone Teachers were all taken into consideration to calculate their final income. Mr. Ming and Mr.

Yang mentioned that although it was not much each month, it was still an allowance specifically for Backbone Teachers.

Opportunities for learning and promotion. In addition to credits, awards, and extra income, another benefit for Backbone Teachers mentioned by all non-Backbone Teacher participants was that Backbone Teachers were always offered valuable opportunities for learning and promotion. The non-Backbone Teacher participants indicated that Backbone Teachers could attend more learning programs at higher levels such as the province-level or national-level professional development projects, while non-Backbone Teachers could only go to the lower-level training programs, such as the district-level or city-level programs. Although the non-Backbone Teacher participants expressed that they understood that the spots for those learning programs were very few, they still showed a little bit of envy that the selected Backbone Teachers would “always be offered better opportunities.” As a matter of fact, when such opportunities became available, only the selected Backbone Teachers would be notified. Mr. Yang at SY Middle School revealed, with a little bit dissatisfaction, that many times, he did not even know the news until the participating Backbone Teachers came back from the program to share their experiences with others.

As for promotional opportunities, it was plain to everyone that Backbone Teachers were valued by the principal. Thus, it was understandable that Backbone Teachers were closer to the principal and were more easily promoted by the principal. In fact, except for Ms. Han, the other three non-Backbone Teacher participants all expected the principal would recognize their abilities, select them as Backbone Teachers, and promote them to some positions in the school. Ms. Hu had made great progress in winning the principal’s recognition, since she won a teaching

competition last year. Mr. Yang and Mr. Wang still needed to work harder to make the principal think highly of them.

Impact on peers. The non-Backbone Teacher participants presented the impact of developing Backbone Teachers on themselves in three aspects. They included helping solve problems, promoting peer' professional development, and forming subtle relationships between Backbone Teachers and their peers.

Helping solve problems. The non-Backbone Teacher participants agreed that they received a great deal of help from Backbone Teachers. Coincidentally, to answer the question who was the teacher providing the most help for them, the non-Backbone Teacher participants all mentioned their former mentors. The non-Backbone Teacher participants recalled that when they were in their first year of teaching, they were guided by the selected mentors to overcome problems and difficulties and to get through their first year of teaching. The former mentors for Mr. Hu, Mr. Ming and Mr. Yang were the current department chairs corresponding to their specific subject area in the schools. Ms. Han's former mentor was the previous Mathematics Department Chair who had retired from KM Middle School.

The non-Backbone Teacher participants indicated that at that time they were just novice teacher and often bothered their mentors with 'silly' questions. The non-Backbone Teachers appreciated the help and support from their former mentors. As Ms. Han mentioned, her mentor was "always there, helping and supporting [her] with incredible patience." Although after the first year, the department chairs were no longer their mentors. But until now, if they had questions or problems, the former mentors were still the first people they thought of to ask for help.

Promoting peers' professional development. The non-Backbone Teacher participants confirmed the role of Backbone Teachers as staff developers. There were many established requirements for Backbone Teachers related to promoting peers' professional development in both KM Middle School and SY Middle School. One established rule was that when the Backbone Teachers came back from some higher-level professional development projects, they needed to share their learning experiences with the whole teacher group, and introduce the learned instructional strategies or pedagogic perspectives to their colleagues. Mr. Ming indicated the non-Backbone Teachers including himself could "more or less learn some new knowledge from this kind of sharing experience meeting," although it might not be so much effective. For Mr. Ming himself, these new ideas would "be embedded" in his mind and "unconsciously influenced" his actual teaching practices.

Another established rule was that Backbone Teachers needed to demonstrate model classes each year. Mr. Yang considered it as "the most effective professional development project" for him so far. He indicated that those model classes were open to the whole society. Beside the model classes in his own school, Mr. Yang also went to other schools to observe those classes because he always learned something after observing Backbone Teachers' instruction in those model classes to improve his own instruction.

There was a specific rule for Backbone Teachers at KM Middle School that the group leader needed to help group members prepare for all teaching competitions. Ms. Hu and Ms. Han both had those preparation experiences with the department chair or grade chairperson, and they asserted that their instruction had improved quickly because of those special supervised sessions.

Subtle relationships with Backbone Teachers. Speaking of their relationship with teachers who became Backbone Teachers, all of the non-Backbone Teacher participants claimed that they had good relationships with the Backbone Teachers. However, according to the non-Backbone Teachers' descriptions, sometimes, their relationships with the Backbone Teachers were closer, while sometimes their relationships became distanced.

The non-Backbone Teacher participants indicated that since their former colleagues became Backbone Teachers, all those interactions, such as asking questions, observing classes, exchanging ideas, etc., occurred more frequently than before because it was perfectly justifiable for Backbone Teachers to help and support teachers. As Ms. Hu stated:

Although there was an open class observation policy at KM Middle School, it would be better to inform the teacher in advance that you are going to observe his or her class. It is about showing respect and letting the teacher be prepared in advance. After all, every teacher wanted to demonstrate a good class if someone is sitting in the back of the classroom. But I don't need to inform the department chair, as my mentor, that I will go to observe her classes, and I could go to her class every day and don't need to worry about bothering her. So, you know, in my first year, I almost observed the department chair's class every day, because I was so green and did not know how to teach a good class.

The other three non-Backbone Teacher participants shared the similar experience related to their closer interactions with the Backbone Teachers since they frequently needed to get advice from the Backbone Teachers.

In addition, Backbone Teachers had the authority to make recommendations. As teachers with the desire to advance, the three younger non-Backbone Teacher participants admitted that they also wanted to make a good impression on the Backbone Teachers through more frequent interactions. These non-Backbone Teacher participants expected that the Backbone Teacher would recommend them to the principal when some opportunities became available.

However, as Ms. Han commented, the Backbone Teachers' authority for recommendations was "a two-sided sword." It could not only give participants a closer relationship with Backbone Teachers, but also it could keep Backbone Teachers at a distance. The Backbone Teachers as leaders in their group were also responsible for evaluating their performance, and Backbone Teachers' words carried weight with the principals. No participant wanted to give Backbone Teacher a negative impression. Therefore, as Ms. Han stated, "sometimes keeping a distance is an effective way to avoid teachers showing their bad side in front of Backbone Teachers."

Impact on students. None of non-Backbone Teacher participants directly linked the impact of Backbone Teachers to the students. The non-Backbone Teacher noted that they were "not in the position to know the impact on the students in the Backbone Teachers' classrooms." As for the students in their own classrooms, the non-Backbone Teachers admitted that they would apply some new instructional strategies or perspectives learned from the Backbone Teachers in their own classrooms if those strategies or perspectives were seemingly effective. From this perspective, their students were influenced by Backbone Teachers. However, to satisfy their students' needs, the non-Backbone Teachers needed to make relevant adjustments for the application of those new strategies and perspectives. It was hard to tell what carried more weight, the adjustments made by the participants or the original strategies introduced by the Backbone Teacher.

Impact on schools. The non-Backbone Teacher participants at KM Middle School mentioned the Backbone Teachers' outstanding performance was always a good vehicle for school publicity. Ms. Han as a mathematics teacher was very proud that the *Mathematics Festival* as a student extracurricular activity in KM Middle School had now become a cross-

school activity. Teachers and students in other schools were invited to participate in the activity. Ms. Han could tell that these teachers and students invited to participate were envious. Ms. Hu mentioned that the public model class demonstrated by Backbone Teachers was another example for school publicity. She indicated that public model classes at KM Middle School would always attract many teachers from other schools and even some parents. These sessions obviously did strengthen the reputation of KM Middle School. Mr. Yang and Mr. Ming did not mention any impact on their school. After all, SY Middle School was not a top school and not many teachers would come to observe classes or take part in activities in this school.

Principals

Impact on Backbone Teachers. The principal participants presented both the positive and negative impact of developing Backbone Teachers on Backbone Teachers themselves. The principals noted the benefits Backbone Teachers gained and also mentioned the responsibilities and sacrifices Backbone Teachers made.

Benefits of becoming Backbone Teachers. The benefits included credits, awards, extra income, and opportunities for learning, winning titles, and earning promotions. The principals, Mr. Zhu and Mr. Xu, both confirmed that Backbone Teachers could get more credits, awards, and even extra income. Mr. Zhu remarked that the title of Backbone Teacher was, per se, “an honor, a sort of credit for teachers’ excellent performance.” At KM Middle School, the Backbone Teachers in charge were responsible for the progress of their group members. Typically, it was the Backbone Teachers’ duties to lead group members in all kinds of professional development activities, such as helping group members prepare for teaching competitions. Therefore, Mr. Zhu claimed that it was “reasonable” for the involved Backbone Teachers to “take credit if their group member won some rewards.” Moreover, Mr. Zhu thought

that it was “fair” to give Backbone Teachers “some financial award if they won some ‘big’ titles (e.g., Province-level Master Teacher, National-level Backbone Teacher),” so as to encourage them to make more progress, since there was no performance-related pay system at KM Middle School.

Mr. Xu expressed a similar idea about the benefits of becoming a Backbone Teacher. He agreed that Backbone Teachers deserved those credits, awards, and increased income. SY Middle School implemented a performance-related pay system, which certainly enabled Backbone Teachers to earn more income than non-Backbone Teachers. Mr. Xu mentioned that there were a variety of honors to award Backbone Teachers’ leadership, such as “best group leader.”

As for opportunities, Mr. Zhu and Mr. Xu clearly showed their attitudes that Backbone Teachers had the best claims to those opportunities. Mr. Xu explained about the allocation of learning opportunities, by stating:

The number of people who can attend some higher-level training programs is very few. Backbone Teachers are best qualified to participate in those programs. Firstly, Backbone Teachers have enough expertise to learn new knowledge well. Secondly, Backbone Teachers also shoulder the responsibility of introducing the good ideas learned from the program to the whole teacher group. It was their duty which made them better qualified than non-Backbone Teachers.

Mr. Zhu expressed that since Backbone Teachers represented the best teaching abilities in the school, they were obviously the best candidates for representing the school at workshops associated with leaders in instructions or curriculum. Mr. Zhu listed Mr. Shen and Ms. Gen, two Backbone Teacher participants, as examples to further illustrate the allocation of opportunities. Mr. Shen in the Mathematics Department won the city-level title of *Academic Leader*, and Ms. Gen in the English Department won the city-level title of *Teaching Master*, which meant the mathematics and English teaching levels at KM Middle School had reached the highest level in

the entire city public education system. Mr. Zhu expressed that if he had chosen someone else, they might not have successfully gained those titles, and those winning opportunities were too precious to be wasted.

Regarding promotion, the two principals openly admitted that Backbone Teachers were indeed on their candidate lists. The principals thought that it was normal for them to give Backbone Teachers more promotion opportunities than others because the principals personally selected those Backbone Teachers for their highly valued abilities, and would like to offer Backbone Teachers positions to facilitate the principals' work.

Responsibilities and sacrifices of becoming Backbone Teachers. Besides the benefits Backbone Teachers gained, Mr. Zhu and Mr. Xu also noted the responsibilities and sacrifices Backbone Teacher bore. The principals believed that Backbone Teachers were entitled those benefits because Backbone Teachers shouldered many responsibilities beyond their own classrooms, and they made many sacrifices, as well. The principals were clearly aware that Backbone Teachers usually had to take assignments back home and spent their spare time working overtime. Mr. Zhu showed his understandings about Backbone Teachers' work stress by stating that Backbone Teachers "not only need to take care of their own performance, but also they assume the responsibility of the performance of other colleagues." Mr. Xu indicated that it was "inevitable" for Backbone Teachers to have more pressure because more responsibilities means more risks. The principals appreciated Backbone Teachers' sacrifices and were thankful for Backbone Teachers' contributions to their work. As Mr. Zhu asserted, "The capable ones are the busiest!"

Impact on peers. Mr. Zhu and Mr. Xu both asserted that Backbone Teachers did have a positive impact on their colleagues. As Mr. Zhu proudly stated:

If you can see how many awards our young teachers had won in all kinds of teaching competitions, you will know how strong the positive impact from the Backbone Teachers is on those young teachers. You would be impressed. And I bet the situation would be completely different if the Backbone Teacher was not there helping those young teachers.

Mr. Zhu also indicated that the average difference for students' achievement for each subject was less than 2 points out of 100 points, which was further evidence to prove the Backbone Teachers' influence at KM Middle School. Mr. Zhu indicated that, for each subject in each grade, the chairperson reviewed the lesson plan framework to make sure that the knowledge points and the assignments were present, hosted the lesson study meeting every Monday night, and organized teachers to prepare lessons together. It meant that under the chairpersons' lead, teachers had the same content to teach and the same assignment for students in different classrooms. Apparently, the chairpersons as Backbone Teachers positively influenced their colleagues' teaching.

Mr. Xu illustrated such impact from the perspective of introducing new ideas. He mentioned the Backbone Teachers at SY Middle School were required to share their learning experiences with other teachers. Last semester, a Backbone Teacher came back from a workshop and introduced a new instructional strategy called the "little apprentice model," which impressed the Backbone Teacher, the principal, and other teachers in the school. And on the call of that Backbone Teacher, most teachers in the school tried this model in their classrooms and the teachers' feedback was generally positive.

Impact on students. The two principals both confirmed Backbone Teachers' positive impact on students. They indicated that the foundation for selecting Backbone Teachers was their expertise, which was reflected on their students' achievement. The principals believed that if the Backbone Teachers made some progress related to the instruction or curriculum, the

students of the Backbone Teachers clearly derived some benefit from their teachers' professional growth. Furthermore, such a positive impact could spread to students of other teachers because of Backbone Teachers' influences on their peers.

For example, as Mr. Xu mentioned, most students' feedback was positive on a new instructional strategy called the "little apprentice model," which was learned by a Backbone Teacher in a workshop and applied by most teachers at SY Middle School last semester. Mr. Zhu used the same example of impact on peers to prove Backbone Teachers' impact on students. He asserted that, since the students' average scores were approximately the same, this was enough to prove the Backbone Teachers' impact on students through their impact on colleagues. Otherwise, the students' achievement for the whole grade level would not be as balanced as was reputed by the participants.

In addition, Mr. Zhu mentioned that since Backbone Teachers are always in charge of instructional and curricular activities, the school-based curriculum and the students' extracurricular activities were usually designed by Backbone Teachers. Apparently, all of the involved students were influenced by the Backbone Teachers' plans. The *Mathematics Festival*, as a very successful extracurricular activity for students at KM Middle School, was mentioned by Mr. Zhu with pride. Mr. Shen, the Mathematics Department Chair, as the designer and organizer of the *Mathematics Festival*, had impact not only on students at KM Middle School but he also had impact on students invited to participate from other schools.

Impact on the school. Both principals affirmed the impact of Backbone Teachers on the school's culture and reputation. They both primarily highlighted that Backbone Teachers were the key factors shaping a positive and collaborative school culture. As Mr. Xu stated:

Backbone Teachers are setting good examples for other teachers in the school. Not only Backbone Teachers' professional expertise but also their attitudes and behaviors are observed and learned by their teaching colleagues. Since they are the leader in the teacher group, every other teacher takes them as models. If they did not want to improve themselves, no one else would want to spend time on learning. If they did not want to share, no one else would want to exchange ideas.

Mr. Zhu explicitly gave commendations to the Backbone Teachers at KM Middle School that the Backbone Teachers always "exerted themselves to accomplish their jobs," "learned to be better," "helped teachers," "collaborated with colleagues," and "shared ideas," and the other teachers "followed the good example of the Backbone Teachers." According to Mr. Zhu, because of the Backbone Teachers' positive influence on the peers, the school culture was "so positive and collaborative" and KM Middle School was "attractive for good teachers."

Another impact of developing Backbone Teachers was associated with the reputation of the school. Both principals mentioned that public model classes demonstrated by Backbone Teachers were a good way to strengthen the school's reputation because teachers from other schools and parents would be present to observe the model classes. Undoubtedly, Mr. Zhu indicated that KM Middle School, as the best middle school in the city, would always attract many audiences to observe the model classes, and the school's reputation was becoming stronger. In addition, Mr. Zhu used the *Mathematics Festival* again as a typical example to illustrate that the successful activities initiated by the Backbone Teachers could also expand the school's reputation. Mr. Zhu shared that the *Mathematics Festival* was now becoming a cross-school activity with a strong influence on other schools.

Mr. Xu indicated that Backbone Teachers were usually selected to gain some cross-school awards related to instruction or curriculum. Since Backbone Teachers represented the highest professional levels in the school, in Mr. Xu's view, "their successes were the school successes, because people might not remember the Backbone Teachers' name, but they usually

would remember which school the winners were from.” In that case, Backbone Teachers were the best vehicle for school publicity.

Case Summary

The findings in this chapter were grounded in the categories and themes which emerged from the data of three cases, Backbone Teachers, non-Backbone Teachers, and principals. Three themes connected with the research questions were presented from the perspectives of Backbone Teacher, non-Backbone Teachers, and principals respectively. Briefly speaking, the first theme, *Roles of Backbone Teachers*, addressed the practical duties Backbone Teachers fulfilled and what their roles were supposed to be. The second theme, *Conditions for developing Backbone Teachers*, presented the positive and negative conditions which shaped the development of Backbone Teacher. The third theme, *Impact of the development of Backbone Teacher*, showed the impact on Backbone Teachers, non-Backbone Teachers, students, and schools. Based on the analysis of the combined data from interviews, observations, and written documents, Backbone Teachers, non-Backbone Teachers, and principals had their individual interpretations on these three themes.

Backbone Teachers

From the perspectives of Backbone Teacher participants, the practical roles of Backbone Teachers included developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. Most of the time, the Backbone Teachers engaged in curricular and instructional activities, serving as leaders to lead the relevant activities, to provide teacher assistance, and to promote teachers’ development. The Backbone Teachers did not like administrative duties, which cost time and energy and distracted them from their regular teaching. The Backbone Teachers served as intermediaries to mediate issues among

teachers as well as between teachers and the principal. As for the information transmission between teachers and the principals, the Backbone Teachers at KM Middle School considered it to be bidirectional, while the Backbone Teachers at SY Middle School complained it was only unidirectional—from the principal to the teachers.

In addition, the Backbone Teachers believed that they were doing exactly what they were supposed to do—to act as a role model and to play a leading role—in their schools. The Backbone Teachers were very confident about their expertise in curriculum and instruction as role models, and they were still trying to become better at their jobs. The Backbone Teachers at KM Middle had a positive attitude that they did play their leading roles as expected, although their interpersonal skills still needed improvement. However, the Backbone Teachers at SY Middle School had concerns about their leading performance because they doubted the outcomes.

In their view, the facilitating conditions for developing Backbone Teachers included the desire to advance, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture. With the desire to advance, teachers would actively learn to be better, eventually to build expertise for themselves. Since Backbone Teachers were selected by the principals, becoming Backbone Teachers represented the recognition of the principal, which certainly would mean also garnering the support of the principal. Teachers' respect and trust could further facilitate Backbone Teachers to exert their leadership. In a positive and collaborative culture, teachers would like to collaborate with each other and to learn from each other to pursue excellence, which further promoted Backbone Teachers to successfully enact their roles as leaders.

The overloaded work with limited time, work stress, and interpersonal conflicts were considered as challenging conditions by the Backbone Teachers. They believed that the concerns raised from those conditions would have a negative influence on the development of Backbone Teachers.

Regarding the impacts of developing Backbone Teachers, the Backbone Teachers expressed that since becoming Backbone Teachers, they gained increased income, credits, and awards, more recognition from Backbone Teachers themselves and others, improved instruction and leadership knowledge and skills, and more self-reflection. The Backbone Teachers' relationships with peers became subtle and their relationships with administrators became closer.

All of the Backbone Teachers agreed that they had positive impact on their teaching peers. But they had disagreements on how strong their impact would be. The Backbone Teachers at KM Middle School believed that they had extensive and positive impact on their peers in the aspect of helping solve problems, supporting their professional growth, and making recommendations. The observation data also revealed such positive impact. The Backbone Teachers at SY Middle School believed that they only had great impact on teachers who wanted to learn, but their efforts seemed to be wasted on teachers who did not wish to learn or advance. The Backbone Teachers at KM Middle School asserted their own students as well as other students benefited from the improved instruction brought by Backbone Teachers, while the Backbone Teachers at SY Middle School were not sure about the impact on their colleagues' students. In addition, the creativity of Backbone Teachers might help to shape further the school's traditions of excellence.

Non-Backbone Teachers

The practical roles of Backbone Teachers in the Non-Backbone Teachers' eyes were associated with the same aspects as the Backbone Teacher participants' answers: developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. The non-Backbone Teachers witnessed the Backbone Teachers in their group in charge of all types of activities or programs related to curriculum and instruction. Although the non-Backbone Teachers would not know exactly how Backbone Teachers dealt with administrative tasks, they were pretty sure that those administrative tasks were time-consuming. The non-Backbone Teachers did appreciate the help and support from Backbone Teachers in their schools. They confirmed that Backbone Teachers were playing an intermediary role in delivering messages between the principal and the teacher groups, and in mediating issues among teachers.

Generally speaking, the non-Backbone Teachers were satisfied with what Backbone Teachers actually did. They considered the current Backbone Teachers as role models playing a leading role in the teacher groups, which was what Backbone Teachers were supposed to do. However, the non-Backbone Teachers at SY Middle School indicated that Backbone Teachers should play more significant roles in shaping a positive and collaborative school culture at SY Middle School.

As for the facilitating conditions for developing Backbone Teachers, the non-Backbone Teachers identified four factors: the desire to advance, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture. A desire to advance was considered as the first step for non-Backbone teachers to become Backbone Teachers. From their own experiences or others' stories told by them, the non-Backbone Teachers all confirmed

the significance of the principal's recognition and support and peers' respect and trust in the development of Backbone Teachers. The non-Backbone Teachers all agreed that only in a positive and collaborative environment, could teachers be willing to exchange ideas and experiences, to learn from each other, and to promote professional development. Then more teachers would have enough qualifications for becoming Backbone Teachers and the current Backbone Teachers could enact their roles more effectively.

The challenging conditions noted by the non-Backbone Teachers included the overloaded work with limited time and the lack of positive school culture. The non-Backbone Teachers were not sure how well they could manage the time to deal with the inevitable overload of work if they became Backbone Teachers. The non-Backbone Teachers at KM Middle School did not have a culture issue. However, for the non-Backbone Teachers at SY Middle School, the lack of a positive culture negatively influenced them on their way to becoming Backbone Teachers.

As to the impact of developing Backbone Teachers, the non-Backbone Teachers asserted that Backbone Teachers themselves benefited by receiving credits, awards, and extra income and more valuable opportunities for learning and promotion. The non-Backbone Teachers identify three aspects including helping solve problems, promoting peer' professional development, and forming subtle relationships as the impact of developing Backbone Teachers on themselves. None of the non-Backbone Teachers directly linked Backbone Teachers to the students, because it was hard to tell what carried more weight, the adjustments made by the non-Backbone Teachers, or the original strategies introduced by the Backbone Teachers. The non-Backbone Teachers at KM Middle School mentioned that the Backbone Teachers' outstanding performance was always a good vehicle for school publicity.

Principals

From the perspectives of the principals, the practical roles of Backbone Teachers could be grouped into the same categories as the other two cases, Backbone Teachers and non-Backbone Teachers: developing curriculum and instruction, attending to administrative tasks, helping and supporting teachers, and being an intermediary. Principals empowered Backbone Teachers to take the lead in curricular and instructional activities. Although they felt empathy for the Backbone Teachers' administrative duties, the principals did not consider it as a big deal. The principals appointed Backbone Teachers to different positions, so that Backbone Teachers could lead a variety of activities to help and to support their teaching colleagues. The principals relied on Backbone Teachers to communicate with teachers, and they trusted Backbone Teachers' abilities in mediating disputes among teachers.

The principals confirmed that Backbone Teachers were acting as role models and playing a leading role in the schools. They emphasized Backbone Teachers' expertise and moral traits as the two conditions for being role models. The principals believed that Backbone Teachers should have creativity and the overall view to exert their leadership. The principal at KM Middle School was very satisfied with Backbone Teachers' leadership, while the principal at SY Middle School thought that Backbone Teachers still needed to work hard to set a good example in shaping a positive and collaborative culture and much improvement was needed for Backbone Teachers in the areas of creativity and the overall view of learning and teaching in his school.

The principals presented four facilitating conditions for developing Backbone Teachers: personal qualifications, the principal's recognition and support, peers respect and trust, and a positive and collaborative school culture. If the teachers had the desires to advance and the good performance to prove their potential expertise, they would be pre-selected as prospective

Backbone Teachers with enough qualifications by the principals. Then the principals would assign extra duties and provide support for the development of those pre-selected teachers. Only teachers winning their peers' respect and trust could be considered as Backbone Teacher candidates. A positive and collaborative school culture could definitely foster more prospective Backbone Teachers to assume the leadership needed to be Backbone Teachers.

Challenging conditions mentioned by the principals included the overloaded work scheduled with limited time and the lack of a positive school culture. The former factor might cause the time conflicts between work and family and between teaching duties and extra duties. The later factor could impede the development of Backbone Teachers.

As for the impact of developing Backbone Teachers, the principals confirmed the benefits Backbone Teachers gained and also mentioned the responsibilities and sacrifices Backbone Teachers made. The principals asserted that Backbone Teacher had positive impact on their colleagues and students. In the principals' views, the school culture and the school reputation were the biggest impact Backbone Teachers would have on the schools.

In the next chapter, a cross-case analysis of the key findings will be presented. The comparisons of individual case findings of Backbone Teachers, non-Backbone Teachers, and principals will be discussed in Chapter 6.

CHAPTER 6

CROSS CASE FINDINGS

Introduction

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. To gain a better understanding about the development of Backbone Teachers, data from three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—were cross-analyzed. Research was conducted to answer the following questions:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teachers' professional development and school improvement?

To further define the study, one high-performing middle school, KM Middle School, and one low-performing middle school, SY Middle School, in the same district, QP, in HA City in Mainland China were chosen as research sites, in which four Backbone teachers, four non-Backbone Teachers, and two principals were interviewed, shadowed, and observed to gain their perspectives on the development of Backbone Teachers. The context of education in China and the school sites in addition to the profile of the participants are offered in Chapter 4. In Chapter 5, the findings were presented.

With the research questions as the framework for this study, the constant comparative method was used to perform a within-case analysis and then a cross-case analysis. The data, including transcriptions, field notes from observations and shadowing experiences, memos, and other artifacts, were analyzed to construct incidents, categories, and themes. The individual case findings responding to these three questions are presented in Chapter 5. After fully understanding the findings from each individual case, the findings for the three cases were combined or aggregated thematically.

This chapter provides a cross-case analysis of the findings for the three groups of participants—Backbone teachers, non-Backbone Teachers, and principals from two schools—KM Middle School and SY Middle School. Three aspects of the development of Backbone Teachers were discussed, including the roles Backbone Teachers fulfilled and should fulfill, the positive and negative conditions shaping the development of Backbone Teachers, and the impact of Backbone Teachers on themselves, their peers, students, and schools. The perspectives of these three groups were compared for commonalities and contrasted for differences.

Roles of Backbone Teachers

There were indications that all the three groups of participants—Backbone teachers, non-Backbone Teachers, and principals, from the two schools—KM Middle School and SY Middle School—had a common understanding on the practical duties of Backbone Teachers. They believed that Backbone Teachers were enacting roles in *developing curriculum and instruction, helping and supporting teachers, attending to administrative tasks, and being an intermediary*. Furthermore, the three groups of participants confirmed that the developing curricular and instructional activities and helping and supporting teachers were two of the top priorities for Backbone Teachers. In fact, the four practical roles of the Backbone teachers usually overlapped

with each other because, for example, the help and support teachers needed mostly occurred in the areas of curriculum and instruction.

According to the data, under the Backbone Teachers' leadership, there was one lesson plan meeting and at least one department teaching and research activity every week in both KM Middle School and SY Middle School. At the two schools, there were requirements related to staff development for Backbone Teachers to demonstrate model classes every semester during the year, to observe peers' classes as school supervisory members, to help teachers solve problems as mentors, and to share what they had learned from the higher-level training programs that they participated in throughout the year. The three groups of participants listed numerous examples of those activities related to helping and supporting teachers in curriculum and instruction.

As for the administrative tasks, all the Backbone Teacher participants more or less complained that they had to spend a great deal of time doing such tasks as filling out reports, wrapping things up, and scheduling meetings. These duties had become part of the Backbone Teachers' normal routines and distracted them from studying curricular content and instructional strategies. The non-Backbone Teachers verified that Backbone Teachers were certainly fulfilling some administrative tasks, but they did not elaborate, and further, they did not specifically know what the Backbone Teachers were charged with doing.

The principal participants touched lightly on the issue of administrative tasks assumed by Backbone Teachers as they enacted their leadership roles. The two principals did not consider attending to administrative duties as a big deal, but they did acknowledge that the administrative duties were time-consuming. Mr. Xu, the principal of SY Middle School, commented,

“Backbone Teachers in those positions should expect those kinds of responsibilities since they were appointed into leader positions.”

As for the role of being an intermediary, all the participants mentioned that Backbone Teachers were playing the role of mediating issues among teachers and communicating between teachers and principals. The data from the three participant groups showed that non-Backbone Teachers trusted Backbone Teachers, which made Backbone Teachers the most appropriate persons to mediate disagreements among peers. The principals always interacted with non-Backbone Teachers through Backbone Teachers, who served as “middle men.” However, there was a disagreement between the Backbone Teachers at KM Middle School and the Backbone Teachers at SY Middle School. The former considered that the information transmission between the principal and teachers was bidirectional, back and forth between the principal and teachers, while the latter considered information transmission unidirectional—only from the principal to the teachers.

Table 6.1 summarizes the perspectives of the participants of the three groups on the practical roles of Backbone Teachers. The differences of the participants’ perspectives were set off by parenthesis in the table.

Table 6.1

Participants' Perspectives on the Practical Roles of Backbone Teachers

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
Developing curriculum and instruction	X	X	X	X	X	X
Attending to administrative tasks	X (complain a little bit)	X (complain a little bit)	(not mention too much)	(not mention too much)	(touch it lightly)	(touch it lightly)
Helping and supporting teachers	X	X	X	X	X	X
Being an intermediary						
Among teachers	X	X	X	X	X	X
Between principals and teachers	X (bidirectional communication)	X (unidirectional communication)	X	X	X	X

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

The three groups of participants—Backbone teachers, non-Backbone Teachers, and principals, from KM Middle School and from SY Middle School all provided a standard answer for what roles Backbone Teachers should play, which was stipulated in a policy document issued by the Minister of Education in Mainland China. A Backbone Teacher should *act as a role model* and *play a leading role for the whole teacher group* (Minister of Education, 1998). The three groups of participants believed that what Backbone Teachers were actually doing was closely related to what Backbone Teachers were supposed to do.

Since they had expertise in content knowledge, instructional skills, and student success, The non-Backbone Teacher and the principal participants from the two schools agreed that Backbone Teachers were acting as role models as expected. They also shared that Backbone Teachers had fine moral traits, such as positive and responsible working attitudes, and Backbone Teachers dedicated themselves to the school. The Backbone Teacher participants were proud about their expertise and moral traits, although they modestly admitted that there would always be people with better qualifications than themselves outside of their immediate schools.

Furthermore, except for the Backbone Teacher participants from SY Middle School, the other participants thought that the Backbone Teachers were acting as leaders in their schools. However, the Backbone Teacher participants from SY Middle School considered themselves as “executants” rather than “leaders” because they were always implementing someone else’s plan as opposed to initiating a plan.

Participants from the different groups had their individual focus on areas that needed improvement for Backbone Teachers to play their leadership role. Generally speaking, except for the interpersonal skills mentioned by the Backbone Teacher participants from KM Middle School, there seemed to be no other specific areas that needed improvement for Backbone Teachers at KM Middle School. The non-Backbone Teacher participants and the principal participants from KM Middle School were both satisfied with Backbone Teachers’ practices in the school. They believed that Backbone Teachers at KM Middle School fulfilled their leading roles as expected.

As for SY Middle School, the Backbone Teacher participants doubted their leading impact, since they were not sure whether their peers learned from them. Because the current school culture was not very positive, the non-Backbone Teacher participants at SY Middle

School indicated that Backbone Teachers should play a more significant role in shaping a positive and collaborative school culture in the school. The principal at SY Middle School was not very satisfied with the Backbone Teachers in the aspect of having “creativity” and “an overall view.” He thought Backbone Teachers in SY Middle School could neither follow the trends in the educational field nor figure out creative activities to impress the students and teachers within the schools. Table 6.2 summarizes the perspectives of the participants about the espoused roles of Backbone Teachers.

Table 6.2

Participants’ Perspectives on the Espoused Roles of Backbone Teachers

	BTs		Non- BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
Acting as a role model						
Great expertise	X	X	X	X	X	X
Good moral traits	X	X	X	X	X	X
Playing a leading role						
Roles of leader	X		X	X	X	X
Places needed to be improved						
Leading impact		X				
Interpersonal skill	X					
Culture shaper				X		X
The creativity						X
The overall view						X

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Conditions for Developing Backbone Teachers

Participants of the three groups shared their understandings about facilitating conditions as well as challenging conditions for developing Backbone Teachers. In general, they shared similar opinions about the facilitating conditions; however, they had different points-of-view about the challenging conditions.

Facilitating Conditions

Based on the analysis of data from the three groups, four categories related to facilitating conditions were constructed as follows: *personal qualifications, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture*. The principals identified personal qualifications, including the desire to advance and excellent expertise as the first conditions for becoming Backbone Teachers. The Backbone Teachers and the non-Backbone Teachers placed extra emphasis on the desire to advance. The Backbone Teachers believed that compared to other teachers, teachers with such a desire would turn out to have expertise and provide leadership in curricular and instructional matters. The non-Backbone Teachers considered such a desire as the first step for teachers to become Backbone Teachers.

The Backbone Teachers and the non-Backbone Teachers did not directly mention expertise as an outstanding condition for developing Backbone Teachers. But, they constantly mentioned expertise when they talked about the principal's recognition and support. The Backbone Teachers and the non-Backbone Teachers listed many indicators to prove teachers' expertise, such as students' achievement, students and parents' evaluations, Backbone Teachers' recommendations, and excellent performances in teaching competitions or public class demonstrations. They indicated that those were common factors that earned the recognition of the principal. Moreover, the Backbone Teachers and the non-Backbone Teachers claimed that earning the principals' recognition was vital in developing into Backbone Teachers because every Backbone Teacher was pre-selected by the principal at the school. The principals verified this assertion.

The three groups of participants all elaborated on the same process of developing Backbone Teachers. The process of becoming a Backbone Teacher was a lengthy one. Once the principal thought highly of a teacher, he or she would impose extra duties on that person and provide more learning opportunities for the pre-selected teacher. When the time was appropriate, the principal would officially offer the teacher the title of Backbone Teacher. The principal would then promote the teacher into specific leading positions, provide more limited and precious educational resources for that teacher, and empower the teacher to lead school activities. The participants all asserted that the principal's recognition and support was a vital condition for Backbone Teachers' development.

All the three groups of participants agreed that the respect and trust from peers was another condition for Backbone Teacher development. The Backbone Teachers asserted that teachers' respect and trust further facilitated them to be able to enact their leadership. The non-Backbone Teachers expressed that they were still trying hard to prove their qualifications to others so as to win such respect and trust. The Non-Backbone Teachers underscored that although they believed they were respected by their peers, the respect and trust given to them could not compare to the respect and trust given to Backbone Teachers. The principals directly stated that only teachers winning peers' respect and trust could be considered Backbone Teacher candidates.

As for the fourth facilitating condition, the Backbone Teachers from KM Middle School specifically indicated the significance of a positive and collaborative culture to the development of Backbone Teachers. The Backbone Teachers expressed that solid school culture had become a significant reason why they would stay at KM Middle School. The non-Backbone Teachers from KM Middle School and SY Middle School both emphasized the positive influence brought

about by a good school culture. The non-Backbone Teachers from both schools agreed that, only in a positive and collaborative environment, teachers would be willing to exchange ideas, to learn from each other, and to promote authentic involvement in professional development. The non-Backbone Teachers also believed that in a school with a positive culture, more teachers would develop the qualifications for becoming Backbone Teachers. Moreover, in a school with a positive school culture, the current Backbone Teachers could enact their various their roles more efficiently.

The two principal participants both shared the same idea that the better the school culture was, the more prospective Backbone Teachers would develop. Table 6.3 summarizes the perspectives of the three groups of participants—Backbone Teachers, non-Backbone Teachers, principals—about the facilitating conditions for developing Backbone Teachers.

Table 6.3

Participants’ Perspectives on the Facilitating Conditions for Developing Backbone Teachers

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
Personal qualifications						
The desire to advance	X	X	X	X	X	X
The expertise					X	X
The principal’s recognition and support	X	X	X	X	X	X
Peers’ respect and trust	X	X	X	X	X	X
A positive and collaborative school culture	X		X	X	X	X

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Challenging Conditions

In contrast to the facilitating conditions for Backbone Teacher development, the three groups of participants also noted negative conditions which might challenge the development of Backbone Teachers. They included *overloaded work with limited time, work stress, interpersonal conflicts, and lack of a positive school culture.*

Among these challenging conditions, the first factor, overloaded work with limited time, was mentioned by all three groups of participants. The Backbone Teacher participants from both KM Middle School and SY Middle School complained that the overload of work cost them so much energy and time that they barely had time to study their own teaching. The Backbone Teacher participants at SY Middle School indicated that the overload of work with limited time to complete it even jeopardized the required class observation activities at their school.

The non-Backbone Teacher participants from both KM Middle School and SY Middle School showed some concern about the issue of limited time and overloaded work. The non-Backbone Teachers were not sure they could manage the time to deal with such an overload of tasks if they became Backbone Teachers. The principals from the two schools also realized that this problem might cause time conflicts between work and family as well as the teaching responsibilities and the extra duties assigned to Backbone Teachers.

Work stress and interpersonal conflicts were two factors only mentioned by the Backbone Teacher participants from the two schools. The Backbone Teacher participants were clearly aware of their accountabilities, which raised their concerns about leading in the wrong way. Furthermore, the possible negative reactions from their colleagues and from the principals more or less became a challenging situation for the Backbone Teachers to exert their leadership.

The fourth factor, lack of a positive school culture, was identified as a negative condition for developing Backbone Teachers by both the non-Backbone Teachers and the principal at SY Middle School. Mr. Yang, a non-Backbone Teacher at SY Middle School, claimed that a bad culture would “awake the lazy nature,” and he would “drift along” like other teachers in the school. Mr. Ming, another non-Backbone Teacher at SY Middle School, indicated that such a culture would “marginalize the teacher with learning pursuits from the whole teacher group” and “worsen the positive impact brought about by Backbone Teachers.” Mr. Xu, the principal of SY Middle School, claimed that the lack of a positive school culture made it hard to develop Backbone Teachers among those teachers without learning pursuits.

As for KM Middle School, since the school culture was very positive and collaborative, the participants from this school did not mention the culture issue. Table 6.4 summarizes the perspectives of the three group participants—Backbone Teachers, non-Backbone Teachers, principals—related to the challenging conditions for developing Backbone Teachers.

Table 6.4

Participants’ Perspectives on the Challenging Conditions for Developing Backbone Teachers

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
The overloaded of work with limited time	X	X	X	X	X	X
Work stress	X	X				
Interpersonal conflicts	X	X				
Lack of a positive school culture				X		X

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Impact of Developing Backbone Teachers

Developing Backbone Teachers had both positive and negative impact on Backbone Teachers themselves, their teaching peers, their students, and their schools. Participants of the three groups shared their own perspectives on these four aspects.

Impact on Backbone Teacher Themselves

As for the impact on Backbone Teachers themselves, the following categories were constructed based on the data from the three groups of participants: *credits, awards, and increased income; opportunities for learning, winning titles, and earning promotions; more recognition; improved instruction and leadership knowledge and skills; more self-reflection; responsibility, pressure, and sacrifice; and subtle relationship with peers.* Among those seven categories, the first five categories referred to positive impact areas, while only the sixth category referred to negative impact areas. The last category was too complicated to simply tell whether it belonged to the advantages or the disadvantages related to impact related to the Backbone Teachers.

The first two categories: credits, awards, and increased income; and opportunities for learning, winning titles, and earning promotions, as benefits gained by Backbone Teachers, were indicated by all the three groups of participants from both KM Middle School and SY Middle School. The Backbone Teacher participants expressed that different honorable titles, such as “Academic Leader,” “Teaching Master,” and “Teaching Expert,” which they had earned, gave them highly professional credibility in the school. At SY Middle School, the Backbone Teachers earned more income than their peers based on a performance-related pay system. At KM Middle School, winning titles were always accompanied by awards. The non-Backbone Teacher participants added that the model classes Backbone Teachers demonstrated and any growth in

the group led by Backbone Teachers could easily bring credit for Backbone Teachers. As for the increased income, the non-Backbone Teacher participants agreed with the Backbone Teacher participants that the money was not too much, but, in total, it was still an allowance specifically for Backbone Teachers. Both of the principal participants confirmed the credits, awards, and increased income for Backbone Teachers, and they believed that it was reasonable and fair for Backbone Teachers to gain those personal benefits.

Compared to credits, awards, and increased income, the three groups of participants valued the opportunities for learning, winning titles, and earning promotions. Data from these three groups showed that compared to non-Backbone Teachers, Backbone Teachers had more access to educational resources and information. The levels of learning programs were indicative of their professional status in the school. Therefore, Backbone Teachers often attended the higher-level learning programs, while non-Backbone Teachers were only provided access to the lower-level learning programs. In fact, the non-Backbone Teachers would not learn of the opening of the higher-level learning programs until the Backbone Teacher participants returned from these programs. This was the same case when it came to opportunities to win titles.

In addition, it was plain to everyone that Backbone Teachers were valued by the principals so that Backbone Teachers were closer to the principal and could get promotions more easily. The principals claimed that Backbone Teachers had the best claim to those opportunities for learning, winning titles, and earning promotions, because of their expertise and their extra responsibilities. Three of the four non-Backbone Teacher participants were eager to gain these valuable opportunities.

More recognition, improved instruction and leadership knowledge and skills, and more self-reflection were professional benefits only mentioned by the Backbone Teachers. The Backbone Teachers all felt that they received more recognition from the principals, their peers, and even themselves. They believed that the honorable titles they gained, the more extra duties they assumed, and the positions they were assuming, represented more recognition from the principals and their peers. In addition, the recognitions from others boosted Backbone Teachers' own confidence and efficacy in their professional abilities while further strengthening the respect and trust shown by their peers.

Learning from their experiences in leadership positions, the Backbone Teachers' leadership knowledge and skills gradually improved. Furthermore, the consequence of being offered more learning opportunities meant that their instructional knowledge and skills advanced faster than their peers. Also, the Backbone Teachers expressed that they were more involved in self-reflection after they became Backbone Teachers. The responsibilities and their sense of honor as Backbone Teachers required them to reflect constantly on their duties and the impact of their work with others, such as better ways of teaching, how to lead the whole teacher group and help them grow, or whether they were leading the right way for the teacher group.

Both the Backbone Teachers and the principals admitted that the closer relationships between Backbone Teachers and principals not only brought Backbone Teachers credits and opportunities but also that these relationship brought more responsibility, pressure, and sacrifice. Backbone Teachers were appointed into various positions and assumed extra responsibilities beyond teaching in their own classrooms. With limited time and more responsibilities, Backbone Teachers usually sacrificed their spare time to finish their work tasks. It was the involved Backbone Teachers that stood to face pressure from the principal when new things went

on or something went wrong in the school. The principals were well aware of those responsibilities, pressures, and sacrifices. And the two principals appreciated Backbone Teachers' dedication in their respective schools.

Except for the positive and negative impact, there was one impact, subtle relationship with peers, presented only by the Backbone Teachers, which was too complicated to be simply grouped into categories related to positive or negative impact on Backbone Teachers. The Backbone Teachers agreed that their good relationships with peers became, at times, a bit tentative since they became Backbone Teachers. The Backbone Teachers sometimes might make their peers uncomfortable because they had to allocate tasks that were perceived to be uninteresting. All the Backbone Teachers repeatedly mentioned that they needed to always keep a low profile because the benefits they gained might make their peers envious.

The Backbone Teachers could feel that their relationships with peers was sometimes "closer" because peers had the right to bother them, and peers wanted to receive favorable recommendations through frequent interaction; however, sometimes relationships went "further" because peers under their lead wanted to keep their distance from supervisors on some occasions. Table 6.5 summarizes the perspectives of the three groups of participants related to the impact of developing Backbone Teachers on Backbone Teachers.

Table 6.5

Participants' Perspectives on the Impact of Developing Backbone Teachers on Backbone Teachers

		BTs		Non-BTs		Principals	
		KM	SY	KM	SY	KM	SY
		MS	MS	MS	MS	MS	MS
Positive impact	Credits, awards, and increased income	X	X	X	X	X	X
	Opportunities for learning, winning titles, and earning promotions	X	X	X	X	X	X
	More recognition	X	X				
	Improved instruction and leadership knowledge and skills	X	X				
	More self-reflection	X	X				
Negative impact	Responsibility, pressure, and sacrifice	X	X			X	X
Others	Subtle relationship with peers	X	X				

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Impact on Peers

The impact of developing Backbone Teachers on teaching peers included *positive impact* related to *helping peers to solve problems* and *promoting peers' professional development*, and *subtle impact on relationships*. The former one, positive impact, was mentioned by all three groups of participants. The latter one, subtle impact on relationships, was only presented by non-Backbone Teacher participants.

All the three groups of participants agreed that Backbone Teachers had a positive impact on teaching peers. But, in the Backbone Teacher group, the participants from both schools, KM Middle School and SY Middle School, had disagreements about how strong their impact would be. The Backbone Teachers at KM Middle School believed that they had extensive and positive impact on their peers in the areas of helping solve problems, supporting their professional growth,

and making recommendations. The observation data also illustrated these types of impact. The Backbone Teachers at SY Middle School believed that they only had significant impact with teachers who wanted to learn, but their efforts were in vain when it came to teachers without such motivation to learn.

The non-backbone Teachers confirmed that they received a great deal of help from Backbone Teachers, and they had gained professional growth under the supervision of Backbone Teachers as staff developers. In fact, there were many established rules in both KM Middle School and SY Middle School that required Backbone Teachers to promote peers' professional development. For example, the Backbone Teachers in the two schools needed to share what they learned after they came back from higher-level professional development programs, the Backbone Teachers in the two schools needed to demonstrate model classes each semester, and the Backbone Teachers at KM Middle School even needed to help group members prepare for various teaching competitions. Those requirements, to a certain extent, ensured Backbone Teachers' impact on promoting peers' professional development.

The principal participants from KM Middle School and SY Middle School both verified the positive impact on peers. Mr. Zhu listed the various awards won by peers under the supervision of the Backbone Teachers and the high scores of almost all the students under the guidance of Backbone Teachers as examples of their positive impact at KM Middle School. Mr. Xu used the example of the wide-spread implementation of new instructional strategies at SY Middle School to illustrate Backbone Teachers' positive impact on their peers.

The impact on the relationships presented by the non-Backbone Teachers here actually partly confirmed the perspectives of Backbone Teacher participants on their subtle relationships with peers. The non-Backbone Teachers agreed that their relationships with Backbone Teachers were sometimes closer, while sometimes distanced. They were closer to Backbone Teachers because it was justifiable for the non-Backbone Teachers to turn to the Backbone Teachers for help and support. In addition, the recommendation authority of Backbone Teachers enabled the non-Backbone Teachers to interact frequently with the Backbone Teachers to give a good impression. However, the non-Backbone Teachers also tried to keep their distance because the Backbone teachers were responsible for evaluating them. Table 6.6 summarizes the perspectives of the three groups of participants related to the impact of Backbone Teachers on peers.

Table 6.6

Participants' Perspectives on the Impact of Developing Backbone Teachers on Peers

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
Positive impact						
Helping solving problems	X	X	X	X	X	X
Promoting peers' professional development	X	X (It depends)	X	X	X	X
Subtle impact on relationship			X	X		

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Impact on Students

Two categories related to the impact of developing Backbone Teachers on students were constructed, including *students' achievement* and *students' activities*. The former one, students' achievement, was mentioned by all the three group participants with differing thoughts; while the latter one, students' activities, was only mentioned by the principal at KM Middle School.

The Backbone Teachers at KM Middle School asserted that students in their own classrooms and other peers' classrooms benefited from the improved instruction introduced and promoted by Backbone Teachers in the school. However, the Backbone Teachers at SY Middle School were not sure about the impact on students of other peers' classrooms because they could not force peers to adopt the new methods they demonstrated. None of the non-Backbone Teachers directly linked Backbone Teachers to the students because it was hard to tell which one carried the most weight, the adjustments made by the participants or the original strategies introduced by the Backbone Teachers. The principals from the two schools both believed that Backbone Teachers did have a positive impact on the students of Backbone Teachers' own classrooms and other peers' classrooms because Backbone Teachers' had a positive influence on their peers.

Beside students' achievement, the principal at KM Middle School mentioned since the school-based curriculums and the students' extracurricular activities were usually designed and organized by Backbone Teachers, all of the involved students were impacted under the Backbone Teachers' leadership. Table 6.7 summarizes the perspectives of the three groups of participants about the impact of developing Backbone Teachers on students.

Table 6.7

Participants' Perspectives on the Impact of Developing Backbone Teachers on Students

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
Students' achievement	X	X			X	X
Students' activities		(It depends)			X	

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Impact on the School

As for the impact of developing Backbone Teachers on the school, two aspects mentioned were: *school culture* and *school publicity*. Although the principal participants from both schools presented that the schools were impacted in these two aspects, only the teacher participants from KM Middle School had a similar opinion, while the teacher participants from SY Middle School, did not indicate any impact on the school.

The principals from KM Middle School and SY Middle School believed that Backbone Teachers were the key factors shaping a positive and collaborative school culture. As, Mr. Xu from SY Middle School stated, without Backbone Teachers' efforts to "set good examples for other teachers in the school" and "to have a positive influence on their peers," the school culture would not be "positive and collaborative." Mr. Zhu from KM Middle School had a similar comment on the issue of culture. In addition, Mr. Zhu from KM Middle School mentioned that the public model classes demonstrated by Backbone Teachers, the activities designed by Backbone Teachers, and the awards won by Backbone Teachers, as "the best vehicle(s) for school publicity," would apparently strengthen and promote the school's reputation, which was also agreed on by Mr. Xu from SY Middle School.

One Backbone Teacher at KM Middle School mentioned his impact on school culture. The students' extracurricular activities in his department initiated and designed by him had now officially become a school tradition that formed a school culture modeled by other schools. The non-Backbone Teachers at KM Middle School emphasized the impact on school publicity by illustrating the positive influence of model activities initiated by Backbone Teachers and model classes demonstrated by Backbone Teachers at KM Middle School. However, the teacher participants at SY Middle School did not mention any impact on their school. In fact, based on

the data, the teacher participants at SY Middle School thought Backbone Teachers' performance was not good enough to shape a positive school culture or to demonstrate publicly the best teaching quality at SY Middle School. Table 6.8 summarizes the perspectives of the three groups of participants about the impact of developing Backbone Teachers on the school.

Table 6.8

Participants' Perspectives on the Impact of Developing Backbone Teachers on the School

	BTs		Non-BTs		Principals	
	KM MS	SY MS	KM MS	SY MS	KM MS	SY MS
School culture	X				X	X
School publicity			X		X	X

Note. BTs = Backbone Teachers; Non-BTs = Non-Backbone Teachers; MS = Middle School.

Analysis of the Findings

The cross-case data from the three groups of participants, Backbone Teachers, non-Backbone Teachers, and principals, showed that Backbone Teachers should play a leading part as role models in the school. It was evident from the analysis of the cross-case data that the current Backbone Teachers in the two schools were acting as role models. They had expertise and solid moral traits that were satisfactory to themselves, their peers and their principals. Backbone Teachers were fulfilling their roles in the following overlapping aspects: developing curriculum and instruction, helping and supporting teachers, attending to administrative tasks, and being an intermediary in the school.

The practical roles, developing curriculum and instruction and helping and supporting teachers, were Backbone Teachers' priority duties. The Backbone Teachers complained about their administrative tasks, and this type of work and duty escaped the attention of their peers who in all probability were unaware of what was involved in assuming administrative work and the

Backbone reaction to this required role. Backbone Teachers acted as an intermediary among teachers and between teachers and the principals. The information transmission between the principals and the teachers was supposed to be bidirectional, but at SY Middle School, on many occasions, it was unidirectional, only from the principal to the teachers.

The peers and the principal at KM Middle School were satisfied with Backbone Teachers' leading performance. As for themselves, the Backbone Teachers identified that their interpersonal skills as a weakness area which still needed to be improved. At SY Middle School, the Backbone Teachers doubted the impact of their leadership, considering the limited number of teachers with learning pursuits within a not positive school culture. In addition, the Backbone Teachers as SY Middle School would rather consider themselves as "executants" rather than "leaders" since they had never had the chance to initiate something new.

The non-Backbone Teachers and the principal at SY Middle School all expected that Backbone Teachers could make more effort in shaping a positive school culture. In addition, the principal at SY Middle School complained that the Backbone Teachers lacked "creativity" and "the overall view" of learning and teaching in the school. The principal at SY Middle School did not have confidence in the Backbone Teachers, the culture was not positive, and the non-Backbone Teachers were not respectful toward the esteemed role that the Backbone Teachers were to enact in their work aimed at improving instruction.

The three groups of participants shared almost the same opinion on the facilitating conditions for developing Backbone Teachers, referring to the following factors: personal qualifications, the principal's recognition and support, peers' respect and trust, and a positive and collaborative school culture. Personal qualifications including the desire to advance and expertise would enable teachers to win the recognition of the principal. Once the teachers were

recognized by the principal, the principal would show his or her support by providing more opportunities for learning and promotion and by empowering the pre-selected teacher to lead school activities.

Also, only the teachers with peers' respect and trust would be considered as candidates for Backbone Teachers. Further, peers' respect and trust facilitated the Backbone Teachers to be able to enact their leadership. Most participants from the three groups shared the same idea that the better the school culture was, the more prospective Backbone Teachers would develop and the better Backbone Teachers would enact their leadership. However, the Backbone Teachers from SY Middle School did not consider a positive school culture as a condition for developing Backbone Teachers.

The three groups of participants noted different ideas about Backbone Teachers' challenging conditions, including overloaded work with limited time, work stress, interpersonal conflicts, and lack of a positive school culture. The fact that Backbone Teachers needed to fulfill an overload of work with limited time to complete it did raise the concerns of the non-Backbone Teachers, jeopardize the jobs of the Backbone Teachers, and garnered the attention of the principals. Work stress and interpersonal conflict were only presented by the Backbone Teachers. And, the lack of positive school culture as a negative condition was repeatedly mentioned by non-Backbone Teacher and the principal participants at SY Middle School.

It was evident that developing Backbone Teachers had positive, negative, and other instances of impact on Backbone Teachers themselves, their peers, their students, and their schools. In general, the overall sentiment was that the instances of positive impact outweighed the negative impact experienced by the Backbone Teachers. There was a preponderance of data across the three groups of participants that Backbone Teachers gained a great deal of personal

benefits, including credits, awards, and increased income, and opportunities for learning, winning titles, and earning promotions. In addition to the personal benefits, Backbone Teacher participants elaborated about the professional benefits they gained from teacher leadership. The Backbone Teachers identified the benefits that included increased recognition from themselves, their peers, and the principals, improved instruction and leadership knowledge and skills, and more opportunities for self-reflection.

Most participants from the three groups asserted that Backbone Teacher had a positive impact on their peers in helping their peers to solve problems and in promoting their peers' professional development. However, the Backbone Teacher participants at SY Middle School were not confident about their impact in promoting their peers' professional growth because they presented that only a few peers had aspirations of pursuing extra learning opportunities; hence, the culture of the school did not promote leadership opportunities as a viable way of positively influencing others.

Most Backbone Teachers participants and their principals claimed that student achievement was positively impacted by developing Backbone Teachers. However, the Backbone Teachers at SY Middle School could only make sure the students from their own classrooms benefited from their improved instruction, and they doubted their impact on students in their peers' classrooms. Also, since the Backbone Teachers often led the curricular and instructional activities in the school, the principal at KM Middle School added that all the students involved in those activities were positively impacted. Non-Backbone Teacher participants shared different points-of-view from the other two groups of participants on the impact of developing Backbone Teachers on students. They thought it was hard to tell the

impact of Backbone Teachers on students because they all made contributions to the changes and modifications of every new idea introduced by Backbone Teachers.

The three groups of participants from KM Middle School presented the positive impact of developing Backbone Teachers on the school. The impact of the Backbone Teachers helped to shape a positive school culture and to strengthen the school's publicity as a way to attract exceptional teachers and students. Only the principal at SY Middle School talked about these two aspects. The other two groups of participants, Backbone Teachers, and non-Backbone Teachers at SY Middle School, did not mention any impact of the Backbone Teachers on the school.

Developing Backbone Teachers also brought some negative impact. Except for non-Backbone Teachers, the other two groups of participants indicated that Backbone Teachers needed to face more pressure, to assume more responsibilities, and to make more sacrifices on behalf of the school.

Also, developing Backbone Teachers had a subtle impact on the relationships between the Backbone Teachers and their peers. Because of the subtle nuances of this finding, it was difficult to classify the impact on relationships as either negative or positive. The Backbone Teachers indicated that they might raise some uncomfortable or envious feelings from their peers because they were in charge and had access to valuable educational resources. In addition, the Backbone Teachers described that the relationships with their peers became "closer," as well as "further." As for the closer relationships, the Backbone Teachers illustrated that since they were in a leader position with the authority of supervision and the ability to make recommendations to their principals, their peers had the right to consult frequently with them about problems, and sometimes their peers wanted to receive a good recommendation through frequent interactions.

As for the “further” relationship, the Backbone Teachers guessed that their peers certainly wanted to keep a distance from the supervisors on some occasions. The non-Backbone Teachers did not mention uncomfortable or envious feelings, but they confirmed that their relationships with the Backbone Teachers were sometimes more closer and sometimes more distant.

From the cross-case analysis of the three groups of participants, five themes were extrapolated from the data using constant comparison methods of analysis. These themes included:

1. Backbone Teachers enacted roles in developing curriculum and instruction, helping and supporting teachers, attending to administrative tasks, and functioning as intermediaries in their schools.
2. Backbone Teachers were supposed to act as role models and to play a leading role in the teacher group. Their expertise and moral traits enabled Backbone Teachers to perform as role models as expected. However, some areas needed improvement for Backbone Teachers to fulfill their roles as leaders.
3. To develop Backbone Teachers, personal qualifications were the foundation, with the principal’s recognition and support vital, peers’ respect and trust necessary, and a positive and collaborative school culture significant.
4. The overloaded work with limited time was an acknowledged condition challenging the development of Backbone Teachers. In addition, work stress and interpersonal skills were identified as negative conditions by the Backbone Teachers. The principals and the non-Backbone Teachers highlighted that the lack of positive school culture impeded the development of Backbone Teachers in the school.

5. Developing Backbone Teachers brought positive impact related to teachers' professional development and school improvement by bringing personal and profession benefits for themselves, helping and promoting their peers' growth, positively affecting student achievement and activities, and shaping school culture and strengthening school publicity. However, the increased work stress, more personal sacrifice to the school, and unfavorable reaction from their peers as negative impact occurred as well. In addition, the Backbone Teachers' relationships with peers became subtle.

Chapter 7 provides a summary of the study in relations to the literature as well as a discussion of the themes that emerged from the cross-case analysis of three groups of participants.

Implications for further research, practice, policy, and professional development are also offered.

CHAPTER 7

SUMMARY, DISCUSSION, AND IMPLICATIONS

The purpose of this study was to explore Backbone Teachers' roles and their impact from the lens of teacher leadership as explicated in the literature in the United States. The experiences of Backbone Teachers, non-Backbone Teachers, and principals and the interactions among those three groups were described and analyzed to construct an understanding related to the development of teacher leadership in Mainland China.

To achieve these objectives, the guiding research questions included:

1. What were the espoused roles and actual roles of Backbone Teachers as teacher leaders?
2. What were the conditions conducive to challenging and supporting the development of Backbone Teachers as teacher leaders?
3. What was the impact of Backbone Teachers as teacher leaders on teacher professional development and school improvement?

A summary of the research design; discussions of the findings related to the literature; unexpected findings; implications for research, policy, practice, and professional development; and final thoughts of the research follow in this chapter.

Summary of the Research Design

A qualitative case study methodology was used to understand the development of teacher leadership from the perspectives of three groups of participants—Backbone Teachers, non-Backbone Teachers, and principals—at two research sites in Mainland China. The three groups

of participants whose perspectives were examined constituted three separate cases as well as one bounded case.

This study was framed in the epistemology of social constructionism. The study was designed to examine the meanings embedded in the social and historical context of Mainland China to construct knowledge about the experiences of Backbone Teachers as teacher leaders in Mainland China. The theoretical perspective of this study was interpretativism. This study used an interpretivist theoretical approach to understand teacher leaders' roles and their impact within specific conditions which might be supporting or challenging to teacher leadership in Mainland China. The researchers' interest in this study was the context-bound meanings of teacher leadership to the participants and how such an understanding guides them to exert their practices as Backbone Teachers.

Current and prominent literature was reviewed to ground the researcher's perspectives related to the development of teacher leadership in the United States as well as the development of Backbone Teachers as teacher leaders in Mainland China. In reviewing the literature in the United States, there were few studies that examined how teacher leadership developed and how teacher leadership impacted school improvement and teachers professional development (e.g., Ryan, 1999; Wasley, 1991). In reviewing the literature in China, even fewer empirical studies regarding teacher leaders' perceptions, practices, and impact, and the conditions that might promote or challenge teacher leadership, and the continued development of teacher leadership vis-à-vis Backbone Teachers in Mainland China (e.g., Jin, 2007; Sun, 2009). This study included 10 participants: 4 Backbone Teachers, 4 non-Backbone Teachers, and 2 principals respectively from 2 middle schools in the same district in Mainland China. Each participant was interviewed once by the researcher. Each Backbone Teacher was shadowed by the researcher for

one week. Several formal meetings and activities involving the participants were observed by the researcher over a six-week period.

Data sources for this study included:

1. Transcriptions from a singular one-on-one interview with each of the 10 participants.
2. Field notes from five formal observations of school meetings and department activities involved multiple participants.
3. Field notes from individual shadowing experiences of the four Backbone Teachers.
4. Artifacts collected throughout the research, included basic school information, such as school reputation, history, rankings, class schedules, etc.; school policies and plans for teachers' evaluation and promotion; teacher professional development activities; curricular and instructional activities; and school meeting agendas and notes.
5. Field notes were taken during individual interviews, and memos were written throughout the data collection and analysis process.

The constant comparative method was adopted to conduct the data analysis for this study. With the research questions as the guiding framework, data coding was conducted to develop categories, patterns, and themes. After fully understanding the individual cases, all three cases including Backbone Teachers, non-Backbone Teachers, and principals were combined and aggregated thematically. Eventually, five major themes for this study were constructed based on the framework.

Discussion of the Findings

Referring to the review of relevant literature, the five key themes produced from the cross-case analysis of the three groups of participants—Backbone Teachers, non-Backbone

Teachers, and principals—in Chapter 6 are discussed in relation to the development of Backbone Teachers as teacher leaders in Mainland China.

Theme 1: *Backbone Teachers enacted their roles in developing curriculum and instruction, helping and supporting teachers, attending to administrative tasks, and functioning as intermediaries in their schools.*

The three groups of participants shared a common understanding about the practical duties of Backbone Teachers. They indicated that developing curriculum and instruction and helping and supporting teachers were two priority duties for Backbone Teachers. Although the three groups of participants had different attitudes, they all admitted that administrative tasks were inevitable duties that Backbone Teachers had to attend to. Moreover, Backbone Teachers' role as intermediaries built a communication bridge between the principal and the teachers and served to mediate disputes and conflicts among teacher groups. The duties of the Backbone Teachers were notated during the shadowing experiences and the formal observations of meetings, lesson demonstrations, and research meetings conducted by the researcher.

Similar findings were reported in the studies related to Backbone Teachers' roles in the literature in China. For example, Fan (2004) reported four types of roles of Backbone Teachers in the educational reform in Mainland China: the leader of teacher professional development, the guider of school-based training, the facilitator of curricular reform implementation, and the collaborator in the project study and research. Guo (2006) highlighted that Backbone Teachers' roles in demonstrating and disseminating exceptional and effective instructions, facilitating curricular and mutual development of teachers, and students, and bolstering school improvement. The current literature related to Backbone Teachers in China were referring primarily to the two priority duties of developing curriculum and instruction and helping and supporting teachers.

This study reported that Backbone Teachers also needed to attend to administrative tasks and to function as intermediaries, which was not reported by the previous studies related to Backbone Teachers' roles.

As far as the literature in the United States, those duties were all reported frequently in the studies describing the roles of teacher leaders. For example, Wasley (1991) described the significant role of teacher leaders in the area of curriculum and instruction. Smylie and Denny (1990) identified teacher leaders in terms of helping and supporting fellow teachers within their buildings. Administrative tasks were reported as central elements of teacher leadership (Leithwood et al., 1997).

Teacher leaders were reported to engage as a liaison between administrative leaders and teachers (Silva et al., 2000). In addition, Smylie and Denny (1990) reported teacher leaders assumed the roles of participating in building-level decision making. Apparently, the Backbone Teachers in this study assumed the same roles of teacher leaders in the United States except for the role of participating in school decision making.

Theme 2: Backbone Teachers were supposed to act as role models and to play a leading role in the teacher group. Their expertise and moral traits enabled Backbone Teachers to perform as role models as expected. However, some areas needed improvement for Backbone Teachers to fulfill their roles as leaders.

The three groups of participants all gave a standard answer that Backbone Teachers should play a leading part as role models, which was stipulated in the policy document issued by the Minister of Education in Mainland China (Minister of Education, 1998). The non-Backbone Teachers commented that the current Backbone Teachers in the two schools were acting as role models as expected because the Backbone Teachers had expertise and solid moral traits that were

satisfactory to themselves, their peers, and their principals. In the high-performing school, KM Middle School, Backbone Teachers apparently played their leading role very well. The non-Backbone Teachers and the principal both acclaimed Backbone Teachers' leading roles. In the poor-performing school, SY Middle School, the three groups of participants highlighted different areas that needed improvement for Backbone Teachers to exert their leadership. The Backbone Teachers admitted that their interpersonal skills needed improvement, and they doubted their leading had any impact on their peers. The non-Backbone Teachers expected Backbone Teachers to exert more effort in shaping a positive school culture. The principal hoped that the current Backbone Teachers could have more "creativity" and "overall views" of teaching and learning in the school.

There is little research in the Chinese literature referring to the weakness of Backbone Teachers in enacting their leadership. Most research in the Chinese literature highlighted Backbone Teachers' instructional abilities in their classrooms rather than in their leading abilities beyond their classrooms and that is why the findings of this study may be able to influence the development of Backbone Teachers. In the literature of teacher leadership in the United States, Boles and Troen (1996) emphasized that teacher leaders were supposed to be "role models who facilitate the development of those around them" (p. 48). Teacher leaders were often identified as reflective practitioners (Murphy, 2005), who should reveal to others new ways of working, and positively influence fellow teachers' willingness to learn (Leithwood, Jantzi, Ryan, & Steinbach, 1997).

Theme 3: *To develop Backbone Teachers, personal qualifications were the foundation, with the principal's recognition and support vital, peers' respect and trust necessary, and a positive and collaborative school culture significant.*

The three groups of participants shared a common understanding on the facilitating conditions for developing Backbone Teachers. They identified the personal qualifications including the desire to advance and expertise as fundamental conditions for becoming Backbone Teachers, which would enable teachers to win the recognition from the principal. Once the teachers were recognized by the principal, the principal would show his or her support by providing more opportunities for learning and promotion. The principal would empower the pre-selected teacher to lead school activities which was the regular process of developing Backbone Teachers in most schools in China elaborated by the three groups of participants. Also, only the teachers with peers' respect and trust would be considered as candidates for Backbone Teacher status. Further, peers' respect and trust facilitated the Backbone Teachers to be able to enact their leadership. Most participants from the three groups shared the same idea that the better the school culture was, the more prospective Backbone Teachers would develop, and the better Backbone Teachers would enact their leadership.

Similar findings were reported in the Chinese literature related to the development of Backbone Teachers. Several studies reported that "superior" teaching expertise was the primary qualification for being a Backbone Teacher (e.g., Jin, 2007; Wang & Cai, 2004a, 2004b). According to a directive from the Minister of Education (1998), principals would be in charge of selecting Backbone Teachers at the school level. In other words, the principal's choice determined a teacher's opportunity to assume this leadership position. Li and Lu (2007) indicated that Chinese teachers usually respected the appointed Backbone Teachers and followed

his or her lead to collaboratively do assigned tasks. Apparently, these findings from this study confirmed the facilitating conditions for developing Backbone Teachers described in the existing literature in China.

A finding in this study was that at one school, the Backbone Teachers were role models; they earned the respect of the non-Backbone Teachers; and the positive school culture supported bi-directional communication between teachers and the principal. However, in the other school, the Backbone Teachers were not necessarily viewed as teacher leaders with great content expertise; hence, there were patterns of non-Backbone Teachers not emulating or putting into practice the instructional strategies modeled by the Backbone Teachers.

Personal expertise, support from the principal, and their peers were also identified as facilitating conditions for the development of teacher leadership in the literature in the United States. York-Barr and Duke (2004) indicated that the significance of expertise in being a teacher leader had been ascertained in the American literature related to teacher leadership. Numerous studies in the United States have suggested the principals' empowerment on teacher leaders to promote teacher leadership (e.g., Nolan, 2000; Ryan, 1999), and Yang and Lee (1994) stated: "The success of teacher leadership depends largely on the cooperation and interaction between teacher leaders and their colleagues" (p. 229).

In addition, the three groups of participants in this study placed extra emphasis on the desire to advance their own personal qualifications. They believed that compared to other teachers, teachers with such a desire would be more solid classroom teachers who had impact on students and their peers, and that this would lead to the development of expertise. No relevant Chinese studies mentioned the significance of the desire to advance. Instead, Backbone Teachers' commitment to their students and their schools was often emphasized as a significant

disposition by many Chinese scholars (e.g., Wang, 2005; Wang & Cai, 2004a, 2004b). In this study, although three groups of participants did not connect morality to the positive conditions supporting the development of Backbone Teachers to win principal's recognition, Backbone Teachers' dedication and sacrifice were inevitable, which was verified and highlighted by the Backbone Teachers and the principals.

Theme 4: The overloaded work with limited time was an acknowledged condition challenging the development of Backbone Teachers. In addition, work stress and interpersonal conflicts were identified as negatives conditions by the Backbone Teachers. The principals and the non-Backbone Teachers highlighted that the lack of positive school culture impeded the development of Backbone Teachers in the school.

The three groups of participants all acknowledged the overloaded work with limited time to complete tasks had become a negative condition in the development of Backbone Teachers. They admitted that the overloaded work schedule with limited time to complete tasks and other assignments associated with being a Backbone Teacher might cause conflict between work and family as well as the teaching responsibilities in the Backbone Teachers' classrooms. Furthermore, the overload of responsibilities, duties, and communication between Backbone Teachers, non-Backbone Teachers, and principals might discourage non-Backbone Teachers to become Backbone Teachers. Chinese scholars indicated that being a Backbone Teachers was considered to be equated with being overworked and working long hours (Wang & Cai, 2004a, 2004b). Similarly, rigidly timed schedules and the balance between classroom responsibilities and leadership functions were all mentioned repeatedly by American scholars as organizational barriers that hindered collegial interaction and leadership opportunities (e.g., Smylie, 1992a; Katzenmeyer & Moller, 2009).

The Backbone Teachers in this study repeatedly mentioned the increasing work stress and interpersonal conflicts they had to face after they assumed this leadership position. Several studies found that the increased pressure and stress from the work made Backbone Teachers exhausted (Wang & Cai, 2004a, 2004b), and considerations of added anxiety and losses of personal well-being actually might deter teachers from assuming leadership responsibilities (Jing, 2007). Similarly, in the United States, many scholars (e.g., Katzenmeyer & Moller, 2001; Silva et al., 2000) indicated that the work stress suppressed the enthusiasm of faculty members to participate in teacher leadership positions.

As for the possible interpersonal conflict, so far there has no prior study in China reported that Backbone Teachers sometimes had to face difficulties in interacting with their peers and the principals. However, the western scholar Murphy (2005) reported that fearing the reactions of their colleagues often made teachers reticent to assume leadership roles.

Compared to the norms of privacy in teaching practice in the United States (Murphy, 2005), Chinese school culture was relatively more collaborative. For example, Ding (2004) ascertained that the belief in collectivism had formed a collaborative culture in Mainland China's schools in which group lesson studies, group class observations, and group evaluations were the customary responsibilities of teachers. However, among Chinese schools, there were still the differences in how positive and collaborative the school culture was. In this study, compared to KM Middle School, SY Middle School did not have a positive and collaborative culture. The non-Backbone Teachers and the principal at SY Middle School all claimed that the lack of a positive and collaborative culture in their school was a negative condition for developing Backbone Teachers. As a matter of fact, the teachers and the principal at KM Middle School considered the school culture as a good reason why exceptional teachers wanted to stay, which

further supported the significance of a positive and collaborative school culture to the development of Backbone Teacher. So far, no prior study in Chinese literature is referring to the school culture as the condition for developing Backbone Teachers.

Theme 5: Developing Backbone Teachers brought positive impact related to teachers' professional development and school improvement by bringing personal and profession benefits for themselves, helping and promoting their peers' growth, and positively affecting student achievement and activities, shaping school culture, and strengthening school publicity. However, the increased work stress, more personal sacrifice to the school, and unfavorable reaction from their peers as negative impact occurred as well. In addition, the Backbone Teachers' relationships with peers became subtle.

Based on the data, it was evident that developing Backbone Teachers had positive, negative, and other instance of impact on Backbone Teachers themselves, their peers, their students, and their schools. In general, the overall sentiment was that the instances of positive impact outweighed the negative impact experienced by the Backbone Teachers.

As for the positive impact of developing Backbone Teachers, there was a preponderance of data across the three groups of participants that Backbone Teachers gained a great deal of personal benefits, including credits, awards, and increased income, as well as opportunities for learning, winning titles, and earning promotions. In addition to the personal benefits, the Backbone Teacher participants elaborated about the professional benefits they received from teacher leadership, including increased recognition from themselves, their peers, and the principals, improved instruction and leadership knowledge and skills, and more opportunities for self-reflection.

Many studies have provided evidence that teacher leadership had a lasting, positive impact on teacher leaders themselves in both the United States and in Mainland China (Chen & Lu, 2010a, 2010b; Harris, 2005; York-Barr & Duke, 2004). Katzenmeyer and Moller (2009) summarized that teacher leaders gained their professional and personal benefits from the primary areas of improved expertise, promoted ownership, increased recognition and self-esteem, and status rewards. Chinese scholars reported that Backbone Teachers gained expertise, leadership skills, more recognition, higher self-esteem, and more status rewards (e.g., Chen & Lu, 2010a, 2010b; Song 2009; Wang & Cai, 2004a, 2004b).

Most participants from the three groups asserted that Backbone Teachers had a positive impact on their peers in helping them to solve problems and in promoting their peers' professional development. The positive impact of Backbone Teachers in demonstrating good instructions and expertise to peers were identified in two studies related to Backbone Teachers (Jin, 2007; Sun, 2009). Similarly, in the United States, in the research by Ryan (1999), a high level of perceived impact on instructional practice of colleagues due to supportive school cultures and principal leadership was reported. However, in this study, the Backbone Teacher participants in the poor-performing school were not confident about their impact in promoting their peers' professional growth because they presented that only a few peers had aspirations of pursuing extra learning opportunities; hence, the culture of the school did not promote leadership opportunities as a viable way of positively influencing others.

Most Backbone Teacher participants and their principals claimed that student achievement was positively impacted by developing Backbone Teachers. In KM Middle School, the average difference for students' achievement taught by different teachers for each subject was less than 2 points out of 100 points and the average achievement of all students in each

subject always ranked first place in almost every unified examination in HA City. The high achievement of students with almost no difference between in Backbone Teachers' classroom and in non-Backbone Teachers' classroom clearly provided some evidence for the positive impact of Backbone Teachers on their own students and on their peers' students through sharing good instructions.

However, the Backbone Teachers at SY Middle School could only make sure the students from their own classroom benefited from their improved instruction, and they doubted their impact on students in their peers' classrooms. In SY Middle School, the average difference for students' achievement was approximately more than 10 points out of 100 points. Obviously, the students in the class with poor achievement seemed not to benefit from the improved instructions shared by the Backbone Teachers whose students' achievement was higher. Also, non-Backbone Teacher participants shared different points-of-view from the other two groups of participants on the impact of developing Backbone Teachers on students. They thought it was hard to tell the impact of Backbone Teachers on students because they all made contributions to the changes and modifications of every new idea introduced by Backbone Teachers.

In the existing literature about Backbone Teachers, it was asserted the positive influence of Backbone Teachers on students, but only three articles reporting empirical research about student learning outcomes could be found. Although these articles (e.g., Jin, 2007; Sun, 2009; Wang & Cai, 2004) reported the positive relationship between Backbone Teachers and their colleagues' instructional improvement, and it was believed that sharing effective instructional strategies could enhance the students' achievement, the research does not provide empirical evidence to support these assertions about Backbone Teachers. Similarly, the relationship between teacher leadership and student learning outcomes was the most unclear issue in the

existing teacher leadership literature in the United States. Many scholars argued that teacher leadership could enhance student learning (e.g., Katzenmeyer & Moller, 2001, 2009). However, the empirical evidence was sparse. Only a few studies directly related to the impact of teacher leadership related to gains in student achievement, and even in these studies, the conclusions of the relationships between teacher leadership and student learning were inconsistent (York-Barr & Duke, 2004).

In this study, the principal added that all the students involved in those activities were positively impacted since the Backbone Teachers often led the curricular and instructional activities in the school. Therefore, not only students' achievement, but also students' activities were positively impacted by the Backbone Teachers. No other existing studies referred to the students' activities being impacted by the Backbone Teachers.

The three groups of participants from KM Middle School presented evidence of the positive impact of developing Backbone Teachers on the school. The impact of the Backbone Teachers helped to shape a positive school culture and to strengthen the school's publicity as a way to attract exceptional teachers and students. The principal participant at SY Middle School had the similar point-of-view. Chen and Lu (2010a) reported similar findings that Backbone Teachers had become the brand of a good public school, which was used by principals as a vehicle to attract high-performing students and exceptional teachers. Clearly, only the high-performing schools could enjoy such a positive impact of Backbone Teachers. That could also explain why the teacher participants at SY Middle School, the poor-performing school, did not mention any impact of the Backbone teachers on the school. So far, little research in China has referred to the positive impact that Backbone Teacher have in shaping a positive school culture. But in the literature of United States, Beachum and Dentith (2004) found that teacher leaders

were successful agents and conduits in promoting cultural change in their schools in an ethnographic study of 25 teacher leaders in 5 schools.

Developing Backbone Teachers also brought some negative impact. Except for the non-Backbone Teacher participants, the other two groups of participants indicated that Backbone Teachers needed to face more pressure, to assume more responsibilities, and to make more sacrifices on behalf of the school. Similar findings were found in other Chinese and American scholars' research. Chinese scholars Wang and Cai (2004a, 2004b) found Backbone Teachers were facing pressure and overwhelming assignments from the parents and the school which often led them to feel exhausted. In the United States, teacher leaders were found hesitant to assume leadership positions because of the problematic relationship with colleagues (Wasley, 1991) and the stress from switching roles between teacher and leader (Katzenmeyer & Moller, 2001, 2009).

Also, developing Backbone Teachers had a subtle impact on the relationships between the Backbone Teachers and their peers. Because of the subtle nuances of this finding, it was difficult to classify the impact on relationships as either negative or positive. The Backbone Teacher participants indicated that they might raise some uncomfortable or envious feelings from their peers because they were in charge and had access to valuable educational resources. The negative reactions from teaching colleagues had raised some scholars' attention.

Chen and Lu (2010a) reported that the huge gaps in the quantity and the quality of resources and benefits provided for Backbone Teachers and non-Backbone Teachers caused the intense competition among teacher groups, which lead to various negative attitudes among teachers. Similarly, in the United States, Wasley (1991) found conflicts and tensions between teacher leaders and their teaching colleagues in a case study of three teacher leaders in three different schools.

In this study, the Backbone Teachers described that the relationships with their peers became “closer,” as well as “further.” As for the closer relationships, the Backbone Teachers illustrated that since they were in leader positions with the authority of supervision and the ability to make recommendations to their principals, their peers had the right to consult frequently with them about problems. Sometimes, however, they felt their peers wanted to receive a good recommendation through these frequent interactions. As for the further relationship, the Backbone Teachers guessed that their peers certainly wanted to keep a distance from the supervisors on some occasions. Non-Backbone Teacher participants did not mention uncomfortable or envious feelings, but they confirmed that their relationships with the Backbone Teachers were sometimes more closer and sometimes more distant. No prior research reported such a subtle relationship between the Backbone Teachers and the non-Backbone Teachers.

Unexpected Findings

This study of the development of Backbone Teachers as teacher leaders produced unanticipated findings related to *the linguistic issue of the term of teacher leaders, whether Backbone Teachers were teacher leaders, and whether everyone can be a Backbone Teacher or a teacher leader*. There existed two kinds of Chinese translation of the English term of teacher leader. The three groups of participants indicated that the first translated term was easily connected to some type of outstanding educators with great charisma and impeccable character, such as Confucius. It was really hard for ordinary people to be such kind of saint in the education field. So, all the participants gave the negative answers to the question whether there were any teacher leaders in their school when the researcher used the first translation.

As for the second translation, the three groups of participants indicated that it was easily referred to the teachers assuming administrative positions in the school system. Two non-Backbone Teachers even expressed that the principals are the teacher leaders in the schools because the principals are in the administrative positions leading the whole teacher groups in the school. Thus, from this perspective, although the Backbone Teacher participants had honorable titles and assumed various instructional leader positions, they were still not considered as teacher leaders because they were not administrators in the schools.

So the researcher gave up the direct translation of the term “teacher leaders.” Instead, the researcher explained the term “teacher leaders” defined by Katzenmeyer and Moller (2009). The three groups of participants expressed that there were teacher leaders that fit the definition in their schools. Mr. Yuan was the teacher leader mentioned by all the three groups of participants at KM Middle School, while Mrs. Zhai was the teacher leader at SY Middle School. Mr. Yuan and Mrs. Zhai were both exemplar teachers with about 40 years teaching experiences individually. They both had earned a good number of honors related to curriculum and instruction. They used to assume almost all the school leader positions in the school, except the principal position. Their dedication and professionalism impressed their teaching colleagues, the principals, and the parents, which made them a legend at each school. Because of their ages and health conditions, they were not in the leader position, but their names were immediately mentioned by the participants as the teacher leader examples.

Compared to the teacher leader in their mind, such as Mr. Yuan, the teacher participants at KM Middle School indicated that most of the current Backbone Teachers were too young to be considered as teacher leaders. However, the principal of KM Middle School believed that the current Backbone Teachers were assuming teacher leaders’ duties regardless of their age. The

participants at SY Middle School gave negative answers to whether Backbone Teachers were teacher leaders. The negative response was because they thought the most current Backbone Teachers could still not be compared to the teacher leader in their mind, like Mrs. Zhai, in their expertise about teaching and leading. In brief, except for the principal in KM Middle School, the other participants did not consider the current Backbone Teachers as the teacher leaders. But the data in this study demonstrated that the Backbone Teachers were enacting the roles of teacher leaders.

As for whether everyone can be a Backbone Teacher, the participants at KM Middle School said “yes” while the participants at SY Middle School said “no.” The participants at KM Middle School believed that the teachers’ qualifications in this school generally were the best compared to other schools in HA City. Therefore, if teachers had aspirations of being Backbone Teachers, they would certainly be qualified for the criteria of Backbone Teacher selection. However, as for the question whether everyone can be a teacher leader, the participants at KM Middle School believed that only a few teachers could eventually have the required qualifications related to both teaching and leading. The participants at SY Middle School thought that both teaching expertise and leadership skills could be evident in a very small population of teachers in their schools.

In summary, although Backbone Teachers were enacting roles of teacher leaders, most participants did not consider Backbone Teachers as teacher leaders. There was no appropriate term that can better translate the English term “teacher leader.” In the higher-performing school, the participants believed that everyone could be a Backbone Teacher, but only a few teachers could be teacher leaders. In the poor-performing school, the participants did not believe that everyone could either be a Backbone Teacher nor could everyone be a Teacher leader.

Implications

The development of Backbone Teachers is significant in Mainland China because Backbone Teachers play a key role in school improvement. Discussion for implications will include ideas to frame possible future research, policy implications will be discussed next, and implications for school leaders and professional developers will be discussed.

Implications for Research

The findings of this study clearly showed that current Backbone Teachers were enacting the roles of teacher leaders explicated in the literature in the United States. But most participants including the Backbone Teacher themselves did not consider the current Backbone Teachers as teacher leaders. In the poor-performing school, the Backbone Teachers even considered themselves as “executants” rather than “leaders.” Similar findings have been reported in a study by Jin (2007) who concluded that Backbone Teachers were considered to play the role of being the extension of the principal rather than teacher leaders. However, even in the United States, the establishment of the teacher leadership concept was also a gradual process. Until the 1990s, the teacher leadership concept has not broadly been accepted in schools (Katzenmeyer & Moller, 1996). During the last three decades, gradually “teacher leadership has become an established feature of educational reform in the United States” (Smylie, Conley, & Marks, 2002, p. 162). Therefore, more research is needed to awaken Backbone Teachers’ awareness of being teacher leaders.

This study made an attempt to construct the teacher leadership concept applied to Backbone Teachers assuming formal instructional leader positions in two middle schools in Mainland China. Considering limited research related to Backbone Teachers as teacher leaders, more research is needed to examine all facets of the world of Backbone Teachers as teacher

leaders from a variety of perspectives or through different methodologies to confirm or disconfirm the findings of this study, but to also extend the research presented. A follow-up study using quantitative methods would be an appropriate approach to cull the perspectives of more Backbone and non-Backbone Teachers. Moreover, considering the complexities of the Chinese educational context, more research is needed to explore possibilities of the development of the teacher leadership concept applied to different Chinese school contexts in the future. For example, the differences between elementary schools, middle schools, and high schools, between urban districts and rural districts, and between cities with higher economic status and cities with low economic status might produce contrasting findings related to developing Backbone Teachers as teacher leaders.

In addition, the American scholars York-Barr and Duke (2004) indicated that Teacher leadership was practiced through a variety of formal and informal positions and roles, in their daily work in schools. So far, there has been only one study (Lesile & Chen, 2007) referring to the formal and informal teacher leaders in Mainland China and the researchers suggested promoting more informal teacher leaders. More research is needed to explore the feasibility of informal teacher leaders applied to Chinese educational context.

Implications for policy

American scholars have identified that teacher leadership plays a central role in school improvement (e.g., Murphy, 2005; York-Barr & Duke, 2004). The practice and impact of Backbone Teachers as teacher leaders in this study supported this idea. Although most of the participants did not consider themselves as teacher leaders, the Backbone Teachers were actually assuming the roles of teacher leaders. Apparently, the term “Backbone Teacher” currently could not be equated with the term of “teacher leader” from the perspectives of most participants, and

the direct translation for “teacher leader” was not appropriate. Policy makers might need to consider a new title for Chinese teacher leaders or to readjust the definition of Backbone Teachers. Such a change could place an emphasis on the leading role of Backbone Teachers by providing standards, assessments, awards, and training related to not only Backbone Teachers’ instructional expertise but also their leading expertise.

In fact, the policy document stipulated that Backbone Teachers should act as role models and play a leading role within teacher groups (Minister of Education, 1998). However, current policy placed much emphasis on the concept that Backbone Teachers were role models which was reflected in the criteria for Backbone Teachers selection. Consequently, the leading role of Backbone Teachers was consciously or unconsciously neglected in practice. The findings of this study that the Backbone Teachers in SY Middle School had confidence on their teaching expertise but doubted their leading impact typically illustrated this consequence of implementing current Backbone Teacher policy. It is time for policy makers to revisit the relevant policy documents related to Backbone Teachers and to consider how to support Backbone Teachers in leadership roles rather than being just instructional role models.

Implications for practice

There were some interesting but contrasting findings between the two research sites in this study, which provided significant implications for practice related to Backbone Teachers. The principal at KM Middle School believed that the Backbone Teachers in his school were the school leaders, and he empowered them to lead the curriculum and instruction in his school. As a result, the curricular designs, class demonstrations, and extracurricular activities initiated by the Backbone Teachers at KM Middle School were so impressive that they became the models for teachers at other schools in HA City. The principal at SY Middle School did not believe that

the Backbone Teachers were the teacher leaders, and he had concerns about the “creativity” and “the overall views” of the Backbone Teachers in his school. As a result, the Backbone Teachers in his school identified themselves as “executants” and they had no confidence on their leading impact. Based on these contrasting findings, school leaders might need to consider their support for Backbone Teachers by giving the Backbone Teachers more power, because their empowerment might determine how far the school could develop.

Also, the findings of this study showed that the Backbone Teachers usually faced being overloaded with their work and with limited time to complete this work. Increased workloads and limited time to complete work jeopardized the regular duties and personal life of the Backbone Teachers and discouraged developing more prospective Backbone Teachers. In fact, the school administrators can make rational adjustments to avoid assigning Backbone Teachers overloaded work with limited time to complete it by developing new coordinator positions, promoting more Backbone Teachers, or adjusting task allocation, for example.

In addition, although Backbone Teachers build a communication bridge between the principal and the teachers, how to make the information transmission bidirectional rather than unidirectional is another problem the school leader need to consider. In this study, the Backbone Teachers in SY Middle School would rather not tell the principal their concerns about the school-based curriculum to avoid possible negative reactions from the principal. The Backbone Teachers’ silence and the principal’s concerns about the lack of creativity and overall view of the Backbone Teachers were mutually reinforcing in SY Middle School, which apparently impeded school improvement and, moreover, had a deleterious consequence—a negative school culture characterized by low morale. Therefore, the school leaders might need to establish a safety zone

for Backbone Teachers so that Backbone Teachers could be free to express their opinions and to apply their expertise toward school improvement efforts.

Implications for professional development

The findings of this study revealed that there was not any professional development program for the Backbone Teachers with the focus on leadership strategies including such areas as time management and interpersonal skill development. The Backbone Teachers had some opportunities to participate in various training programs only related to instruction and curriculum. As consequence, the Backbone Teachers improved their leadership skills by learning from their own experiences; however, they considered interpersonal skills as their least developed area.

Apparently, it is necessary to design and to implement professional development opportunities for developing teachers' leadership so they can serve as teacher leaders in their schools. In addition, considering the positive impact Backbone Teachers as teacher leaders could bring to the school, principal professional development programs might also need to include some relevant topics about how to support teacher leaders. So far, the significance of training teacher leaders has been identified by American scholars and several states such as Ohio and Kentucky have been re-designing their school leader preparation programs to support team-based approaches to school leadership (Teacher Leadership Exploratory Consortium, 2011). The researcher hereby suggests that the relevant professional development designers and organizers in Mainland China could learn more from those cases in the United States.

Concluding Thoughts

The purpose of this study was to explore Backbone Teachers' roles and their impact. The experiences of Backbone Teachers, non-Backbone Teachers, and principals and the interactions among these three groups were described and analyzed to construct an understanding related to the development of teacher leadership in Mainland China.

The findings of this study presented that Backbone Teachers were enacting roles of teacher leaders including developing curriculum and instruction, helping and supporting teachers, attending to administrative tasks, and functioning as intermediaries in schools. But there was no appropriate translation for the term "teacher leader," and the Backbone Teachers' awareness of being teacher leaders was not always apparent to them. The current policy in China places much emphasis on the concept that Backbone Teachers should be role models which was reflected in the criteria for Backbone Teacher selection. Consequently, the leading role of Backbone Teachers was consciously or unconsciously neglected in practice. Furthermore, the school improvement and professional development could be impeded because they were both closely related to the impact of Backbone Teachers exerting their leadership.

The interesting but contrasting findings between the two research sites in this study demonstrated the different consequences of Backbone Teachers exerting their leadership. The Backbone Teachers in the both schools have confidence on their teaching expertise; however, the Backbone Teachers at one school realized they were leading their peers in the teacher groups, and they were having a positive attitude toward their leading impact; while the Backbone Teachers at another school, only considered themselves as executants and doubted impact with leading others. The former school was a high-performing school and the latter was a poor-

performing school, which obviously supported that the Backbone Teachers' leadership plays a significant part in the school development.

Therefore, it is necessary to awaken Backbone Teachers' awareness of being teacher leaders. The more Backbone Teachers realize their leading role, the better they will enact their leadership. Moreover, a systematic approach and the implementation of a sound plan for Backbone Teacher selections, training, assessment, and awards with emphasis on their leading role is needed to support Backbone Teachers in leadership roles. And only then, Backbone Teachers will be able to play a more effective part in contributing to student and school success and teacher professional development.

REFERENCES

- Arnove, R. F. (2007). Introduction: Reframing comparative education: The dialectic of the global and local. In R. F. Arnove & C. A. Torres (Eds.), *Comparative education: The dialectic of the global and the local* (3rd ed., pp. 1-20). Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Barth, R. S. (2007). The teacher leader. In R. H. Ackerman & S. V. Mackenzie (Eds.), *Uncovering teacher leadership: Essays and voices from the field* (pp. 9-36). Thousand Oaks, CA: Corwin Press.
- Beachum, F., & Dentith, A. M. (2004). Teacher leaders creating cultures of school renewal and transformation. *The Educational Forum*, 68, 276-285. Retrieved from <http://www.eric.ed.gov/PDFS/EJ724873.pdf>
- Boles, K., & Troen, V. (1996). Teacher leaders and power: Achieving school reform from the classroom. In G. Moller & M. Katzenmeyer (Eds.), *Every teacher as a leader: Realizing the potential of teacher leadership* (pp. 41-62). San Francisco, CA: Jossey-Bass.
- Butler-Kisber, L. (2010). *Qualitative inquiry: Thematic, narrative and arts-informed perspectives*. London, England: Sage.
- Cannata, M., McCrory, R., Sykes, G., Anagnostopoulos, D. & Frank, K. A. (2010). Exploring the influences of National Board Certified Teachers in their schools and beyond. *Educational Administration Quarterly*, 46(4), 463-490. doi:10.1177/0013161x10375605
- Cantrell, S., Fullerton, J., Kane, T. J., & Staiger, D. O. (2008). National board certification and teacher effectiveness: Evidence from a random assignment experiment (NBER Working

- Paper No. 14608). Retrieved from the National Bureau of Economic Research website:
<http://www.nber.org/papers/w14608.pdf>
- Chen, Z., & Lu, N. (2010a). Zhengshi yu feizhengshi de jiaoshi lingdao dui jiaoshi zhuanye fazhan de yingxiang [Formal and informal teacher leadership and their impact on teacher professional development]. *Teacher Education Research*, 22(1), 12-16.
- Chen, Z., & Lu, N. (2010b). Zhongguo neidi jiaoshi lingdao de zhang'ai yu tiaojian [Impediments and conditions for teacher leadership in the Mainland China]. *Fudan Education Forum*, 8(3), 54-57.
- Chubb, J. E. (1988, Winter). Why the current wave of school reform will fail. *Public Interest*, (90), 28-49. Retrieved from
http://www.nationalaffairs.com/doclib/20080708_1988902whythecurrentwaveofschoolreformwillfailjohnechubb.pdf
- Clotfelter, C. T., Ladd, H., & Vigdor, J. (2007). *How and why do teacher credentials matter for student achievement?* (NBER Working Paper No. 12828). Retrieved from the National Bureau of Economic Research website: <http://www.nber.org/papers/w12828.pdf>
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Crowther, F., Kaagan, S. S., Ferguson, M., & Hann, L. (2002). *Developing teacher leader: How teacher leadership enhances school success*. Thousand Oaks, CA: Corwin Press.
- Cuban, L. (1984). School reform by remote control: SB 813 in California. *Phi Delta Kappan*, 66(3), 213-215. Retrieved from <http://www.jstor.org/>

- Danielson, C. (2007). The many faces of leadership. *Educational Leadership*, 65(1), 14-19.
- Retrieved from <http://ehis.ebscohost.com/>
- Darling-Hammond, L., & Berry, B. (1988). *The evolution of teacher policy*. Santa Monica, CA: Rand Corp.
- Darling-Hammond, L., Bullmaster, M. L., & Cobb, V. L. (1995). Rethinking teacher leadership through professional development schools. *The Elementary School Journal*, 96(1), 87-106. doi: 0013-5984/96/9601-0006
- Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 1-29). Thousand Oaks, CA: Sage.
- Ding, G. (2004, October). Jiaoshi de zhuanye lingdao: Tuandui fazhan jihua [Teachers' professional leadership: The team plan]. *Research in Educational Development*, (10), 20-33.
- Ding, G. (2007). Zhongguo jiaoshi fazhan de wenhua jieshi [The cultural explanation on Chinese teacher professional development]. In N. Zhou, L. Zhao, & Q. Ren (Eds.), *Jiaoshi jiaoyu gaige yu jiaoshi zhuanye fazhan: Guoji shiye yu bentu shijian* [Educational reform and teacher professional development: The global perspective and local practice] (pp. 34-41). Shanghai, China: East China Normal University Press.
- Elmore, R. F. (2004). *School Reform from the Inside Out: Policy, Practice, & Performance*. Cambridge, MA: Harvard Education Press.
- Fan, G. (2004, January). Lun zhongxiaoxue guran jiaoshi zai dangqian jichu jiaoyu gaigezhong de jueise dingwei [The role of outstanding primary and middle school teachers in the reform of elementary education]. *Journal of Fujian Education Institute*, (1), 12-13.

- Farrell, J. P. (2007). Equality of education: A half-century of comparative evidence seen from a new millennium. In R. F. Arnove & C. A. Torres (Eds.), *Comparative education: The dialectic of the global and the local* (3rd ed., pp. 129-150). Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Forster, E. M. (1997). Teacher leadership: Professional right and responsibility. *Action in Teacher Education*, 19(3), 82-94. Retrieved from <http://ehis.ebscohost.com/>
- Frost, D., & Durrant, J. (2003). Teacher leadership: Rational, strategy, and impact. *School Leadership & management*, 23(2), 173-186. doi: 10.1080/1363243032000091940
- Gilliat-Ray, S. (2011). 'Being there': The experience of shadowing a British Muslim hospital chaplain. *Qualitative Research*, 11(5), 469-486. doi: 10.1177/1468794111413223
- Glaser, B. G. (1994). The constant comparative method of qualitative analysis. In B. G. Glaser (Ed.), *More grounded theory methodology: A reader* (pp. 182-196). Mill Valley, CA: Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Glesne, C. (2011) *Becoming qualitative researchers: An introduction* (4th ed.). Boston, MA: Pearson.
- Griffin, G. A. (1995). Influences of shared decision making on school and classroom activity: Conversations with five teachers. *Elementary School Journal*, 96, 29-45. Retrieved from <http://ehis.ebscohost.com/>
- Gu, M. (1990). *Zhongguo jiaoyu cidian [Chinese Educational Dictionary]*. Shanghai, China: Shanghai Education Press.

- Guo, J. (2006, August). Zhongxiaoxue guban jiaoshi sushi tezheng jiqi zuoyong de fahui [The qualifications and functions of Backbone Teachers in the elementary and middle schools]. *Modern Primary and Secondary Education*, (8), 51-53.
- Harris, A. (2003). Teacher leadership as distributed leadership: heresy, fantasy or possibility? *School Leadership & Management*, 23(3), 313-324. doi: 10.1080/1363242032000112801
- Harris, A. (2005). Teacher leadership: More than just a feel-good factor? *Leadership and Policy in Schools*, 4(3), 201-219. doi:10.1080/15700760500244777
- Harris, A. (2008). *Distributed School Leadership: Developing tomorrow's leaders*. New York: NY: Routledge.
- Harris, A., & Muijs, D. (2003). Teacher leadership and school improvement. *Education Review*, 16(2), 39-42. Retrieved from <http://ehis.ebscohost.com/>
- Harris, A., & Muijs, D. (2004). *Improving schools through teacher leadership*. London, UK: Open University Press.
- Harris, D. N., & Sass, T. R. (2007). *The effects of NBPTS-certified teachers on student achievement*. (CALDER Working Paper No. 4). Retrieved from National Center for the Analysis of Longitudinal Data in Education Research websites: http://dualstack.caldercenter-1090421479.us-east-1.elb.amazonaws.com/publications/upload/1001060_NBPTS_Certified.pdf
- Hart, A. W. (1994). Creating teacher leadership roles. *Educational Administration Quarterly*, 30(4), 472-497. doi: 10.1177/0013161X94030004005
- Hart, A. W. (1995). Reconceiving school leadership: Emergent view. *The Elementary School Journal*, 96(1), 9-28. Retrieved from <http://ehis.ebscohost.com/>

- Huang, X. & Zhu, J. (2005). *Kecheng lingdao yu xiaoben kecheng fazhan* [Curriculum leadership and school-based curriculum development]. Beijing, China: Educational Science Press.
- Holmes Group. (1986). *Tomorrow's teachers: A report of the Holmes Group*. East Lansing, MI: Author.
- Jin, J. (2007). *Zheongxisoxue jiaoshi lingdao yanjiu* [Research on teacher leadership in elementary and secondary school] (Unpublished doctoral dissertation). Northwest Normal University, Lanzhou, China.
- Katzenmeyer, M., & Moller, G. (1996). *Awakening the sleeping giant: leadership development for teachers*. Thousand Oaks, CA: Corwin Press.
- Katzenmeyer, M., & Moller, G. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders*. Thousand Oaks, CA: Corwin Press.
- Katzenmeyer, M., & Moller, G. (2009). *Awakening the sleeping giant: Helping teachers develop as leaders*. Thousand Oaks, CA: Corwin Press.
- Leithwood, K., & Jantzi, D. (1999). The relative effects of principal and teacher sources of leadership on student engagement with school. *Educational Administration Quarterly*, 35(5), 679-706. doi: 10.1177/0013161X99355002
- Leithwood, K., & Jantzi, D. (2000). Principal and teacher leadership effects: A replication. *School Leadership and Management*, 20(4), 415-434. doi: 10.1080/13632430020003210
- Leithwood, K., Jantzi, D., Ryan, S., & Steinbach, R. (1997, March). *Distributed leadership in secondary schools*. Paper presented at the annual meeting of the American educational Research Association, Chicago, IL.

- Leslie, N. G. L., & Chen, Z. (2006, May). Zuowei jiaoshi lingdao de jiaogai celve: Cong zuzhi cengmian tangtao ou' mei de zuofa yu qishi [Teacher leadership as a strategy of educational reform: Discussions and implications on the western practice from the organizational perspective]. *Research in Educational Development*, (9), 54-57.
- Leslie, N. G. L., & Chen, Z. (2007). Fuquan jiaoshi: Jiaoshi zhuan ye fazhanzhong de jiaoshi lingdao [Empowering Teachers: Teacher Leadership in Teacher Professional Development]. *Teacher Education Research*, 19 (4), 1-5.
- Li, J. (2006). *Analysis of the implementation of teacher education policy in China since the 1990s: A case study*. (Doctoral dissertation, University of Maryland). Retrieved from <http://drum.lib.umd.edu/bitstream/1903/4150/1/umi-umd-3945.pdf>
- Li, Q. (2005). Hezuo: Jiaoshi zhuan ye fazhan de lixianghua moshi [Collaboration: An ideal developing model for teacher professional development]. *Educational Theory and Practice*, 8(1), 16-20.
- Li, W., & Lu, N. (2007). Hugang liangdi jiaoyu gaigexia de jiaoshi zhuan yexing [Comparison in teacher professionalism under the educational reform between Shanghai and Hongkong]. In N. Lu, & T. Cao (Eds.), *Zhongguo jiaoshi de zhuan ye fazhan yu bianqian [The change of professional development of Chinese teachers]* (pp. 389-411). Beijing, China: Educational Science Publishing House.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Liu, X. (2007). Jiaoshi lingdao jiaoyu: Meiguo jiaoshi jiaoyu xin qushi yanjiu [Teacher leadership education: A study of new trend of teacher education in the United States] (Unpublished master's thesis). The Capital Normal University, Beijing, China.

- Little, J. W. (1988). Assessing the prospects for teacher leadership. In A. Lieberman (Ed.), *Building a professional culture in schools* (pp. 78-106). New York, NY: Teachers College Press.
- Little, J. W. (1990). The mentor phenomenon and the social organization of teaching. *Review of Research in Education*, 16, 297-352. doi: 10.2307.1167355
- Little, J. W. (2003). Constructions of teacher leadership in three periods of policy and reform activism. *School Leadership & Management*, 23(4), 401-419. doi: 10.1080/1363243032000150944
- Lock, A., & Strong, T. (2010). *Social constructionism: Sources and stirrings in theory and practice*. New York, NY: Cambridge University Press.
- Long, J., & Chen, P. (2010, April). Dangqian jiaoshi lingdaoli de kunjing yu chulu [The predicament and outlet for current teacher leadership study]. *Journal of South China Normal University (Social Science Edition)*, (2), 42-45.
- Louis, K. S., & Marks, H. (1998). Does professional community affect the classroom?: Teacher's work and student experiences in restructuring schools. *American Journal of Education*, 106(4), 532-575. Retrieved from <http://ehis.ebscohost.com/>
- Maeroff, G. (1988). *The empowerment of teachers: Overcoming the crisis of confidence*. New York, NY: Teachers College Press.
- Margolis, J. (2008). When teachers face teachers: Listening to the resource "right down the hall". *Teacher Education*, 19(4), 293-310. doi: 10.1080/10476210802425628
- Mangin, M. M., & Stoelinga, S. R. (2008). Teacher leadership: What it is and why it matters. In M. M. Mangin, & S. R. Stoelinga (Eds.), *Effective teacher leadership: Using research to inform and reform*. New York, NY: Teacher College Press.

- McCulloch, G. (2004). *Documentary Research: In Education, History, and the Social Sciences*. London, England: Routledge-Falmer.
- McDonald, S. (2005). Studying actions in context: A qualitative shadowing method for organizational research. *Qualitative Research*, 5(4), 455-473. doi: 10.1177/1468794105056923
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. (2nd ed.). San Francisco, CA: Jossey-Bass.
- Minister of Education. (1991, January 1). 1990 nian jiaoyu dashi ji [The record for educational issues in 1990]. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_163/200408/3483.html
- Minister of Education. (1998, December 24). Mianxiang 21shiji jiaoyu xingdong jihua [Action plan of educational revitalization facing up 21 century]. Retrieved from <http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/s3735/200407/2487.html>
- Minister of Education. (2001, June 8th). Jichu jiaoyu kecheng gaige gangyao (shixing) [The guideline of basic education curriculum reform (pilot version)]. Retrieved from http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_309/200412/4672.html
- Minister of Education. (2002a, January 1). 2001nian dashi ji [The record for educational issues in 2001]. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_163/200408/3413.html
- Minister of Education. (2002b, February 2). Jiaoyu 50nian dashi ji (cong 1960 dao 1969) [The big educational issues for 50 years (from 1960 to 1969)]. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_163/200408/3451.html

- Minister of Education. (2002c, February 5). Jiaoyu 50nian dashi ji (cong 1990 dao 1999) [The big educational issues for 50 years (from 1990 to 1999)]. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_163/200408/3455.html
- Moller, G., & Katzenmeyer, M. (1996). The promise of teacher leadership. In G. Moller & M. Katzenmeyer (Eds.), *Every teacher as a leader: Realizing the potential of teacher leadership* (pp. 1-18). San Francisco, CA: Jossey-Bass.
- Murphy, J. (2005). *Connecting teacher leadership and school improvement*. Thousand Oaks, CA: Sage.
- National Board for Professional Teaching Standards. (n.d.). A new milestones. Retrieved from <http://www.nbpts.org/new-milestone>
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: Author. Retrieved from http://datacenter.spps.org/uploads/sotw_a_nation_at_risk_1983.pdf
- National Governors' Association. (1986). *Time for result*. Washington, DC: Author.
- Ni, C., & Zhou, J. (2000). *Gugan jiaoshi duiwu jianshe yanjiu* [Study on developing the Backbone Teacher group]. Shenyang, China: Shenyang Press.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Phillips, D. Y. (2004). *The perspectives of a principal and emergent teacher leaders of instructional leadership in a shared governance elementary school*. (Doctoral dissertation, University of Georgia). Retrieved from <http://dbs.galib.uga.edu/cgi-bin/ultimate.cgi?dbs=getd&userid=galileo&action=search>

- Preus, B. (2007). Educational trends in China and the United States: Proverbial pendulum or potential for balance? *Phi Delta Kappan*, 89(2), 115-118. Retrieved from <http://ehis.ebscohost.com/>
- Quinlan, E. (2008). Conspicuous invisibility: Shadowing as a data collection strategy. *Qualitative Inquiry*, 14(8), 1480-1499. doi: 10.1177/1077800408318318
- Rosenholtz, S. J. (1989). Teachers' workplace: The social organization of schools. White Plains, NY: Longman.
- Ryan, S. (1999, April). *Principals and teachers leading together*. Paper presented at the annual meeting of the American Educational Research Association. Montreal, Canada.
- Samoff, J. (2007). Institutionalizing international influence. In R. F. Arnove & C. A. Torres (Eds.), *Comparative education: The dialectic of the global and the local* (3rd ed., pp. 47-78). Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Sanders, W. L., Ashton, J. J., & Wright, S. P. (2005). *Comparison of the effects of NBPTS Certified Teachers with other teachers on the rate of student academic progress*. Arlington, VA: National Board for Professional Teaching Standards. Retrieved from <http://www.eric.ed.gov/PDFS/ED491846.pdf>
- Schulz, B. C. (2008). Teacher perspectives on how high-stakes testing influences instructional decisions and professionalism. In S. J. Zepeda (Ed.), *Real-world supervision: Adapting theory to practice* (pp. 143-164). Norwood, MA: Christopher-Gordon Publishers, Inc.
- Silva, D. Y., Gimbert, B., & Nolan, J. (2000). Sliding the doors: Locking and unlocking possibilities for teacher leadership. *Teacher College Record*, 102(4), 779-804. Retrieved from <http://www.tcrecord.org/>

- Smylie, M. A. (1992a). Teacher participation in school decision making: Assessing willingness to participate. *Educational Evaluation and Policy Analysis*, 14(1), 53-67. Retrieved from <http://www.jstor.org/>
- Smylie, M. A. (1992b). Teachers' reports of their interactions with teacher leaders concerning classroom instruction. *The Elementary School Journal*, 93(1), 85-98. Retrieved from <http://ehis.ebscohost.com/>
- Smylie, M. A. (2008). Forward. In M. M. Mangin & S. R. Stoelinga (Eds.), *Effective teacher leadership: Using research to inform and reform* (pp. ix-x). New York, NY: Teachers College Press.
- Smylie, M. A., Conley, S., & Marks, H. M. (2002). Exploring new approaches to teacher leadership for school improvement. In J. Murphy (Ed.), *The educational leadership challenge: Redefining leadership for the 21st century* (pp. 162-188). Chicago, IL: University of Chicago Press.
- Smylie, M. A., & Denny, J. W. (1990). Teacher leadership: Tensions and ambiguities in organizational perspective. *Educational Administration Quarterly*, 26(3), 235-259. doi: 10.1177/0013161X90026003003
- Snell, J., & Swanson, J. (2000, April 24). *The essential knowledge and skills of teacher leaders: A search for a conceptual framework*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Song, C. (2007). Kecheng gaige Beijing xia de jiaoshi zhuan ye xuexi shequn yu jiaoshi fazhan: Shanghai de ge'an yanjiu [Teacher professional learning community and development under the background of curriculum reform: A case study in Shanghai]. In N. Lu, & T. Cao (Eds.), *Zhongguo jiaoshi de zhuan ye fazhan yu bianqian [The change of professional*

- development of Chinese teachers*] (pp. 88-109). Beijing, China: Educational Science Publishing House.
- Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). Investigating school leadership practice: A distributed perspective. *Educational Researcher*, 30(3), 23-28. Retrieved from <http://www.jstor.org/stable/3594470>
- Spillane, J. P., Halverson, R., & Diamond, J. B. (2004). Toward a theory of leadership practice: A distributed perspective. *Journal of Curriculum Studies*, 36(1), 3-34. doi: 10.1080/0022027032000106726
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. E. (2005). Qualitative case studies. In N.K. Denzin & Y.S. Lincoln (Eds.). *The Sage handbook of qualitative research* (3rd ed.) (pp. 443-466). Thousand Oaks, CA: Sage Publications.
- Stern, P. N. (1994). The grounded theory method: Its issues and processes. In B. G. Glaser (Ed.), *More grounded theory methodology: A reader* (pp. 116-126). Mill Valley, CA: Sociology Press.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Sun, M. (2009). Gugan jiaoshi duiweu jianshe de shixiaoxing yanjiu [The study on the practicability of key teaching staff development] (Unpublished master's thesis). East China Normal University, Shanghai, China.
- Taylor, D. L., & Bogotch, I. E. (1994). School-level effects of teachers' participation in decision making. *Educational Evaluation and Policy Analysis*, 16, 302-319. Retrieved from <http://www.jstor.org/stable/1164402>

- Taylor, M., Yates, A., Meyer, L. H., & Kinsella, P. (2010). Teacher professional leadership in support of teacher professional development. *Teaching and Teacher Education*, 27(2011), 85-94. doi: 10.1016/j.tate.2010.07.005
- Teacher Leadership Exploratory Consortium (2011). *Teacher leader model standards*. Retrieved from http://teacherleaderstandards.org/downloads/TLS_Brochure.pdf
- The Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st century*. New York, NY: Author.
- Wang, H. (2008). Zhongxue guban jiaoshi chixu fazhan yanjiu [Research on the sustaining development of Backbone Teachers in middle school] (Unpublished master's thesis). Shandong Normal University, Ji'nan, China.
- Wang, L. (2005). Zoujin guban jiaoshi de shenghuo shijie: Yizhong shehuixue fenxi [Approaching to Backbone Teachers' life: A kind of sociology analysis]. *Teacher Education Research*, 17(1), 51-55.
- Wang, L., & Cai, F. (2004a, February). Cong shifansheng dao guban jiaoshi (yi) [Growth from student teacher to Backbone Teacher (part 1)]. *Contemporary Education Science*, (3), 35-42.
- Wang, L., & Cai, F. (2004b, March). Cong shifansheng dao guban jiaoshi (er) [Growth from student teacher to Backbone Teacher (part 2)]. *Contemporary Education Science*, (5), 32-40.
- Wasley, P. A. (1991). *Teachers who lead: The rhetoric of reform and realities of practice*. New York, NY: Teachers College Press.
- Wilson, M. (1993). The search for teacher leaders. *Educational leadership*, 50(6), 24-27. Retrieved from <http://ehis.ebscohost.com/>

- Wong, K. & Nicotera, A. (2007). *Successful schools and educational accountability: Concepts and skills to meet leadership challenges*. Boston, MA: Pearson Education.
- Xinhua News Agency. (2010, July 29). Guuojia zhongchangqi jiaoyu gaige he fazhan guihua gangyao (2010-2020) [National education reform and development of long-term planning programs (2010-2020)]. Retrieved from http://www.gov.cn/jrzq/2010-07/29/content_1667143.htm
- Xu, J., & Li, W. (2005). *Lingxiu jiaoshi yu jiaoshi zhuan ye fazhan [Teacher leader and teacher professional development]*. Hong Kong, China: Huizhi Press.
- Yarger, S. J., & Lee, O. (1994). The development and sustenance of instructional leadership. In D. R. Walling (Ed.), *Teachers as leaders: Perspectives on the professional development of teachers* (pp. 223-237). Bloomington, IN: Phi Delta Kappa.
- Yin, R. (2009) *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage, Inc.
- York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research*, 74(3), 255-316. Retrieved from <http://www.jstor.org/stable/3516026>
- Zepeda, S. J. (2011). *Professional development: What works* (2nd ed.). Larchmont, NY: Eye on Education.
- Zepeda, S. J., Mayers, R. S., & Benson, B. N. (2003). *The call to teacher leadership*. Larchmont, NY: Eye on Education.
- Zhang, X. (Ed.). (2008). *Zhongguo jiaoyu fazhan yu zhengce, 1978-2008 [China's education development and policy, 1978-2008]*. Beijing, China: Social Sciences Academic Press.

Zhou, J. (2009, July). Jiaoshi lingdao neihan, juese jiqi shishi celve [The connotations, roles, and implementation strategies of teacher leadership]. *Journal of the Chinese Society of Education*, (07), 27-30.

APPENDIX A
PARTICIPANT INTERVIEW QUESTION GUIDES

Interview Question Guide for Backbone Teachers

1. Please describe your job as a Backbone Teacher.
2. How long have you been as a Backbone Teacher? And how did it happen?
3. What kinds of successes / problems have you experienced as a Backbone Teacher?
4. Who has influenced you most in your teaching and managing students? Why?
5. Have you ever influence other colleagues? If so, how?
6. How has becoming Backbone Teacher changed you?
7. Has your relationship with your colleagues / administrators changed? How?
8. What do you enjoy about your role as a Backbone Teacher?
9. If you have a second chance, would you be a Backbone Teacher again? What regrets do you have?
10. What should Backbone Teacher do? What should be their roles and functions?
11. Do you think you fulfill the role and functions of Backbone Teachers you described above?
Why?
12. Please describe the areas in which you feel most competent and least competent as a Backbone Teacher.
13. Do you realize that you are a Backbone Teacher at usual? How?
14. Do you think whether there are some teacher leaders in your school? Do you think whether you are a teacher leader? How do you define a teacher leader?

Interview Question Guide for Non-Backbone Teachers

1. Please describe your job and the Backbone Teachers' job you saw.
2. Who are the most influencing teachers in your department is? At what aspect and how do they influence? Were you used to be influenced by him or her? How?
3. Who has influenced you most in your teaching and managing students? Why?
4. Have you ever influence other colleagues? If so, how?
5. How do you think about Backbone Teachers? How is your relationship with Backbone Teachers?
6. Do you want to become a Backbone Teacher? How? And why?
7. What should Backbone Teachers do? What should be their roles and functions?
8. Do you think Backbone Teachers in your department fulfill the role and functions you described above? Why?
9. Do you think whether there are some teacher leaders in your school? Do you think whether Backbone Teachers are teacher leaders? How will you define a teacher leader?

Interview Question Guide for Principals

1. Please describe your job, the Backbone Teachers' job and their situations in your school, and your school situation.
2. How can a teacher become a Backbone Teacher?
3. Who are the most influencing teachers in your school? At what aspect and how do they influence?
4. Please give them an overall evaluation.
5. How do you think about Backbone Teachers? How is your relationship with Backbone Teachers?
6. What should Backbone Teacher do? What should be their roles and functions?
7. Do you think Backbone Teachers in your school fulfill the role and functions you described above? Why?
8. How does the school make its decisions? Do teachers participate in school decision making process? How?
9. Do you think whether there are some teacher leaders in your school? Do you think whether Backbone Teachers are teacher leaders? How will you define a teacher leader?

APPENDIX B
PARTICIPANT CONSENT FORMS

I agree to participate in a research study titled "The development of Backbone Teachers as teacher leaders in Mainland China" conducted by Feiye Wang from the Department of Lifelong Education, Administration, and Policy at the University of Georgia under the direction of Dr. Sally J. Zepeda, Department of Lifelong Education, Administration, and Policy, University of Georgia. I know that my participation is voluntary. I understand that the total duration of participation will last one month and the researcher's visit will last at least 4 hours in total. I can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits to which I am otherwise entitled. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The reason for this study is to explore Backbone Teachers' roles and effects in Mainland China from the lens of teacher leadership as explicated in the Western world. If I volunteer to take part in this study, I will be asked to do the following things:

- 1) I will fill in a sheet regarding my demographic information such as subjects taught, teaching experiences, the position, etc.
- 2) I will make 2-3 appointments for 2-3 round interviews of my convenience at the school location. The topics of the interview are my experiences of being a Backbone Teacher, and my perceptions about teacher leadership. It will take about an hour for each interview. All of interviews will be audiotaped.
- 3) At least one research group meeting led by me or with my presence will be observed.
- 4) I will provide some documents related to my work such as the job description, the teaching plan, etc.
- 5) I will be contacted after the research to clarify my information.

The benefits that I may expect from it are the chance to express my views, reflect my practice, and share my experiences and the opportunity to contribute to knowledge about teacher leadership in the education field.

No discomforts or stresses are foreseen. However, if I am bothered by any questions posed, I may skip them.

No risks are foreseen. No individually-identifiable information about me, or provided by me during the research, will be shared with others without my written permission, unless otherwise required by law. The tapes will be transcribed with all personally identifying information replaced by pseudonyms. And audiotapes will be erased once the transcriptions have been

checked for accuracy. In addition, I understand that the key linking real names and pseudonyms will not be destroyed until the researcher's dissertation is finally done, because the researcher might need to contact me for further elaboration and clarification during the dissertation writing process.

The researchers will answer any further questions about the research, now or during the course of the project, and can be reached by phone at xxx-xxx-xxx (Wang) or xxx-xxx-xxx (Zepeda).

I understand that I am agreeing by my signature on this form to take part in this research project and understand that I will receive a signed copy of this consent form for my records.

_____	_____	_____
Name of Researcher	Signature	Date

Telephone: _____

Email: _____

_____	_____	_____
Name of Participant	Signature	Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

APPENDIX C
PARTICIPANT DEMOGRAPHIC SHEETS

Name:

Age:

Gender:

Subject:

Grade:

Position(s):

Honorable title(s):

If you are a teacher,

- Years at site
- Total years teaching:

If you are a principal,

- Years at current position:
- Years in administration:
- Years in education:

Professional ranks:

The profession development programs beyond school-level in the past 3 years:

APPENDIX D
OBSERVATION LOG

Participant:

Date:

Location:

Start Time:

End Time:

Description of the setting:

Descriptions of activities during the observation period:

Who else was present/interacting with the participant during the observation period and how:

Additional Reflections: