Public Education Reform and Network Governance

A Case Study of Chinese Railway State-owned Enterprise Schools

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Declaration

This thesis contains no material that has been accepted for the award of any other degree or diplomas in any educational institution and, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Notice 1

Notice 2

The research for this received the approval of the Monash University Human Research Ethics Committee (Approval Reference: CF10/1049 – 2010000550)

Dedication

To Annie, Gideon and Ephraim

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Publications and Presentations Relating to the Thesis

Books

Chan, P. W. K. (Ed.). (2012). *Asia Pacific Education: Diversity, Challenges and Changes*. Clayton, Australia: Monash University Publishing.

Zhang, H., Chan, P. W. K., & Kenway, J. (Eds.). (In press). *Asia as Method in Education Studies: A Defiant Research Imagination,* United Kingdom: Routledge.

Book Chapters

Chan, P. W. K., & Pardy, J. (2012). Introduction - Changing Perspectives in Asia Pacific Education Research. In P. W. K. Chan (Ed.), *Asia Pacific Education: Diversity, Challenges and Changes* (pp. 1-4). Clayton: Australia: Monash University Publishing.

Chan, P. W. K. (2012). The New Governance in Chinese Public Education Reform: A Case of a Railway Enterprise-run School. In P. W. K. Chan (Ed.), *Asia Pacific Education: Diversity, Challenges and Changes* (pp. 185-205). Clayton: Australia: Monash University Publishing.

Chan, P. W. K., & Seddon, T. (2014). Governing Education in China: PISA, comparison and educational regions. In T. Fenwick, E. Mangez & J. Ozga (Eds.), *Governing Knowledge. 2014 World Yearbook of Education,* (pp. 200-217). United Kingdom: Routledge.

Chan, P. W. K., Zhang, H., & Kenway, J. (In press). Introduction: Struggles to Construct New Research Imaginations in Response to Chen's Challenges. In H. Zhang, P. W. K. Chan & J. Kenway (Eds.), *Asia as Method in Education Studies: A Defiant Research Imagination*. United Kingdom: Routledge.

Zhang, H., Chan, P. W. K., Wang, Y., & Yang, C. (In press). East-West Dialogue: Three Cases of Educational Research in China and Australia. In H. Zhang, P. W. K. Chan & J. Kenway (Eds.), *Asia as Method in Education Studies: A Defiant Research Imagination*. United Kingdom: Routledge.

Journal articles

Chan, P. W. K., & Seddon, T. (2012a). Network Governance in Education: The Case of Chinese State-owned Enterprise School. *The International Journal of Continuing Education and Lifelong Learning, 4*(2), 117-136.

Chan, P. W. K., & Seddon, T. (2012b). 教育的網絡管治：中國國企學校案例研究. *國際持續教育及終身學習期刊, 4*(2), 101-116.

Chan, P. W. K., & Zhang, H. (2014). Book Review: Comparative and International Education: An Introduction to Theory, Method and Practice. *Critical Studies in Education*.

Conference presentations

Chan, P. W. K. (2009). *The Public School Reform in China before and after Credit Crunch 2008.*Paper presented at the Monash Education Research Community (MERC) Annual Conference, Monash University.

Chan, P. W. K. (2011). *Network Governance in Chinese Educational Policy: the Case of Harbin State-owned Enterprise Schools*. Paper presented at the Australian Association for Research in Education Conference 2011, Hobart. http://www.aare.edu.au/11pap/papers_pdf/aarefinal00215.pdf

Zhang, H., Chan, P. W. K., Wang, Y., & Yang, C. (2011). *Alternative Perspective: Educational Research in China and Chinese Community in Australia*. Paper presented at the Australian Association for Research in Education Conference 2011, Hobart. http://www.aare.edu.au/11pap/papers_pdf/aarefinal00627.pdf

Wang, X., Chan, P. W. K., & Zhang, H. (2011a). *'Back to Tradition': Rethinking Chinese Traditional Culture in the Contemporary Educational Research*. Paper presented at the Second International Conference on Popular Culture and Education, Hong Kong Institute of Education.

Wang, X., Chan, P. W. K., & Zhang, H. (2011b). *Globalizing Chinese Education Policy: From the Perspective of Equity and Governance*. Paper presented at the Engaging with Vietnam - An Interdisciplinary Dialogue, Vietnam National University.

Chan, P. W. K. (2012a). *Changing China - Changing Governance: New Governance in Education Policy.* Paper presented at the Monash Education Research Community (MERC) Annual Conference, Monash University.

Chan, P. W. K. (2012b). *Network Governance in Chinese Public Education Reform: Railway Enterprise-run Schools in Harbin and Shenzhen*. Paper presented at the Eighth Annual Graduate Seminar on China, The Chinese University of Hong Kong, Hong Kong.

Zhang, H., Chan, P. W. K., Wang, Y., & Yang, C. (2012). East-West Dialogue: Three Cases of Educational Research in China and Australia. Paper presented at the Australian Association for Research in Education and Asia-Pacific Education Research Association Joint Conference 2012, Sydney. (In an invited symposium, titled Asia as Method in Education Studies).

Wang, X., & Chan, P. W. K. (2013). *Globalisation and the Educational Governance in China: Control Diminishing?* Paper presented at the European Educational Research Association Annual Conference 2013, Istanbul, Turkey.

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List of Abbreviations

APS	Assisted Places Scheme
CCP	Chinese Communist Party
CCCCP	Central Committee of the Chinese Communist Party
CPPCC	Chinese People's Political Consultative Conference
EAZ	Education Action Zones
LEA	Local Education Authorities
LLEN	Local Learning and Employment Networks
MERC	Monash Education Research Community
MES	Modern Enterprise System
MOE	Ministry of Education
MUHREC	Monash University Human Research Ethics Committee
PISA	Programme for International Student Assessment
PPP	Public-Private Partnerships
PRC	People’s Republic of China
RMB	RenMinBi
SASAC	State-owned Assets Supervision and Administration Commission
SCERH	Standing Committee on Ethics in Research Involving Humans
SOE	State-owned enterprise

Glossary

RMB (Yuan)	The Chinese unit of currency also called "RenMinBi" (RMB). The official rate of exchange in 1970 was US$1 = ¥1 yuan; in 1980, US$1 = ¥1.5 yuan; in1995, US$1 = ¥5.4 yuan; in 2005, US$1 = ¥8.2 yuan; in 2010, US$1 = ¥6.8 yuan. As of May 2014, the exchange rate is US$1 = ¥6.2 yuan.
Teachers' grades	Chinese teachers have these ranks: primary grade, middle grade, senior grade, and special category (superior) grade, which is given to only a very few exceptional teachers. Salaries are not necessarily commensurate with the grades; Seniority and achievement are the most important criteria in evaluation
Schools	China's public schools are divided into key schools and ordinary schools. In the 1980s, primary schools and junior high schools were also categorised as key or ordinary schools; although today they may not be so called, conditions in these schools basically remain unchanged. China's formal higher learning institutions are also divided into key universities and ordinary universities

Abstract

Public education systems that developed through the 19th and 20th centuries in

the West are changing as national governments implement lifelong learning reforms to address imperatives associated with globalisation. There is a substantial education literature on the trajectory of public education reform, which documents the way modes of governing are shifting from bureaucracies to markets and networks. The character of public education reform in China is less well known and often associated with strongly centralised bureaucratic government. Yet since 1949 there has been significant reform in Chinese education and the role of hierarchy and market governance in enabling education reform in China is well documented in the education literature. However, the significance of network governance in Chinese education has been, to date, less well documented. Through this project, I sought to understand the trajectory of past and future development of public school reform in China.

This thesis draws on theories of 'network governance' to analyse a case study of policy implementation aimed at reforming Chinese public education.

The thesis reports on a case study of public school reform in China. It documents the reform of one type of school, State-owned Enterprise schools as a consequence of the Chinese government's implementation of the Modern Enterprise System. This policy reform disconnected schooling functions previously associated with State-owned Enterprises (SOEs) and relocated them to the Ministry of Education in order to rectify heavy reductions in profit in SOEs. I focus specifically on the railway State-owned Enterprise schools in Harbin, the capital and largest city of Heilongjiang Province in Northeast China and in Shenzhen, the most economically prosperous city in Southern China in terms of per capita income. Using document analysis and interviews, I

document:

1. The trajectory of SOE reform and its implications for the provision of education through SOE schools. I argue that SOE education has been an important component in Chinese education, organising public education provision by establishing a diversified range of state-owned enterprise schools from childcare centres to higher education, across China. These SOE schools provided public education because they functioned primarily as socio-economic units rather than as purely production units (Chapter 5: The Trajectory of State-owned Enterprises Education).
2. The process of policy implementation that accompanied the implementation of the Modern Enterprise System. I show how top-down policy is implemented from central government to ministry level, to province level, to municipal city level and finally to the district level. Networks support negotiation and bargaining at the district level, which influence the education policy of the central government. These intersecting policy implementation processes show how the centralised Modern Enterprise System policy proposal is coordinated through actions and resource transactions between actors at different levels of government, ministries, schools, principals and teachers (Chapter 6: Modes of Governance in SOE Schooling)
3. The kind of resources that are transacted between key actors associated with the state-owned enterprise schools in the process of policy implementation. I argue that resource exchanges between actors that are networked by the state-owned enterprise schools make a significant and positive contribution to the policy

implementation process, which relocated schooling functions from the SOEs to the Ministry of Education (MOE). I argue that network governance permits the exchange of resources that are differentially valued by different actors, which allows for the negotiation of win-win outcomes by transacting differently valued 'goods' in the process of negotiating agreements about governing (Chapter 7: Policy Implementation through the Transaction of Differentially Valued Resources).

This thesis argues that the processes of formulating and implementing Chinese education policy can be characterised as a form of network governance, which coordinates actors, decision-making processes, and stakeholders' motivation to comply with collective decisions in Chinese education. The thesis argues network governance to be an effective and legitimate way of problem solving that assists policy implementation and education reform in China.

CHAPTER ONE

Introduction and Definitions

1.1 Context of the study

Disappointment in the state as an effective political steering centre of society has increased throughout the twentieth century, which has given rise to the search for alternative modes of guiding and coordinating socio-economic development. In Western education, this questioning of government has resulted in a shift from state to market coordination (Marginson, 1997). Research studies show that networks were important in this move from government to governance (Ball, 2008; Lawn & Grek, 2012), but their significance in Chinese education reform is less well documented.

This study is located in the field of education governance and sits amidst debates on public school reform in China. It applies network governance theory from political science disciplines (Rhodes, 1997) to the shifting regulation of public education in China by its government (through a state-enterprise relationship) to a different mode of governance. Chinese public school reform has included the establishment of the Modern Enterprise System (MES), which disconnected schooling functions previously associated with State-owned Enterprises (SOEs) and relocated these to the Ministry of Education in order to rectify loss of profit in SOEs under the pressure from government for competition.

Prior to the Open Door Policy, which began in 1978, Chinese society was often described as “closed, conservative, authoritarian and hierarchical” (Qi & Tang, 2004, p.

466). The Education system could be characterised as a “highly centralised” or “state dominated” model in China (R. Yang, 2004b, p. 328). The study examines how a top-down policy approach has been implemented from central government to ministry level, to province level, to municipal city level and finally to the district level within the public education system in China. It also shows the way networks support negotiation and bargaining at the district level which, in turn, influences the broader education policy of the central government. These intersecting policy implementation processes occurring at these different levels (central, province, municipal and district) provide insight into how the centralised MES policy direction is coordinated through actions and resource transactions between actors at different levels of government and schools.

The study draws on statistical data from education yearbooks, government documents analysis and interviews with main stakeholders in this policy arena. It develops a case study around the railway SOE schools in Harbin, the capital and largest city of Heilongjiang Province in North-east China, and Shenzhen, the gateway city to Southern China. In China, more than 1,100 schools were built and run by the Ministry of Railways. Analysis of these indicates that the processes of formulating and implementing Chinese education policy can be characterised as a form of network governance, which coordinates actors, decision-making processes, and stakeholders’ motivation to comply with collective decisions in Chinese education. Network governance acts as an effective and legitimate way of problem solving that assists policy implementation and education reform in China.

By comparing two traditional modes of governance (governance through bureaucracy

and the governance through markets), this study shows the network mode of governance in Chinese education is more powerful and significant, especially since the negotiated results among actors in the policy community are favourable. I had not anticipated this kind of fruitful finding before embarking on this research.

1.2 The research questions

After acknowledging that educational governance has shifted from government to governance through network in the Western countries, the main research question and sub-questions informing the project are:

The main question is:

How has governance had been applied in Railway State-owned Enterprise schools when they were transferred from the Ministry of Railways to the Ministry of Education under the Modern Enterprise System since 1993?

The four specific questions are:

1. What is 'public education' and how is it being reformed in China?

2. What was the contribution of State-owned Enterprises to education in China before transfer to the MOE?

3. What are the modes of governance that have taken place in public education systems in China?

4. How has policy been implemented in SOE schools through the transaction

of differentially valued resources? How have resources been exchanged between policy actors to achieve win-win results?

1.3 The rationale of the study

Through this project, I sought to understand the trajectory of past and future development of public school reform in China. Network governance is another way to manage SOE schools in China. The reform of Chinese SOEs, which has resisted the privatisation of public schools, is presented as an example of a response to the challenges of marketization that have been faced in education.

The main aim of this study is to examine network governance in Chinese public school reform. This perspective recognises that both hierarchy and market coordination are influenced by community conventions and relationships. Governance which operates through networks must deal with multiple decision-centres in the process of coordinating service delivery in education. This focuses attention on the initiation and facilitation of interaction processes between stakeholders, as a way of creating and changing network arrangements for the sake of better coordination of education. The project investigates network governance in Chinese SOE schools. It focuses on different independent actors in a policy community who are required to exchange resources in order to achieve their own objectives and to create a win-win situation.

1.4 Definitions

1.4.1 State-owned Enterprises

State-owned Enterprises (SOEs) are owned by "the people" represented by the Chinese Communist Party (CCP) or the state, and managed by government officials (Pascual, 1996). World Bank research emphasises that SOE should have four characteristics: It is (1) a government owned productive organisation that (2) is expected to earn a significant portion of its revenues from sales of goods and services it produces, (3) it possesses an accounting system separate from any government agency that controls and supervises it, and (4) is a distinct legal entity (Shirley, 1983). The SOEs are not only the "backbone" of the Chinese economy, but are also the main source of revenue for the central government. About 60 precent of central government revenue comes from taxing the SOE sector. Chinese SOEs used to function primarily as socio-economic entities rather than as purely production units. The function of many SOEs is not limited to maximising profit. Their operations include the provision of social and welfare services, normally considered a 'public good', such as education, medical services, housing, childcare and pensions. Indeed, many large SOEs exist much like 'mini-welfare states'. A detailed discussion of a central planning system related to SOEs will be presented in Chapter Six.

1.4.2 State-owned Enterprise Schools

State-owned enterprise schools (SOE schools) were built and run by SOEs to provide education to children of their employees as one of the social and welfare

services they performed. SOE schools played an important role in the Chinese public education from 1949, when the government lacked sufficient funds to finance education. Previous studies (Qin & Hong, 1996; Si, 2001; J. Wang, 2003) show that SOE schools had a significant role in the provision of public education in China. There were 21,323 schools owned and operated by the SOEs in 1994 (CEFSY, 1994). These schools enrolled nine million students and employed 900,000 teachers. SOEs contributed RMB¥ 10 billion as educational funds annually (CSY, 1999). More detailed information about SOE schools will be presented in Chapter Five.

1.4.3 Modern Enterprise System

The Modern Enterprise System is a business system initiated in 1993 which allows and enlarges enterprises' decision-making autonomy and distance from the government and operation under the principles of the Chinese socialist market economy (Bai & Bennington, 2007). This system aims to reduce SOEs' social welfare burden, re-focus their business goals toward market-oriented production activities and increase market competitiveness. In education, the separation of schools from SOEs was one of requirements of the MES. The schools belonging to SOEs were required to be transferred to the Ministry of Education (MOE). These changes reduced the number of SOE schools from 21,323 in 1994 to 4,793 in 2007 (CEFSY, 2007). In 2004, the government piloted this shift of schools from SOEs to the MOE, by detaching 729 State-owned Enterprise schools with 70,069 teachers and staff from SOEs such as China National Petroleum Corporation, China Petrochemical Corporation and Dongfeng Motor Corporation. Following the success of this pilot, the Chinese government removed another batch of schools from 74 SOEs in 2005. These corporations are from

industries such as nuclear, aerospace, ship building, steel, metallurgy and mining, chemical, power, transportation, business investment, fishery and forestry (SASAC, 2005). Detailed information about this MES will be presented in Chapter Six.

1.5 Scope of the study

This study is presented in eight chapters. In this introductory chapter (Chapter one), I outline the overall framework of the thesis by addressing the foci of study, define the terms and overall structure of the thesis.

Chapter Two (**Education and Modes of Governing**) provides background on the pattern of change in the governance of education globally and in China. It outlines the trajectory of public school reform in Anglo-American countries (United States, United Kingdom, Australia) and China in three time periods, namely establishing public schools, governance through bureaucracy and governance through markets. This chapter explores how states involve education in processes of governing through different 'modes of coordination' (Thompson, Frances, Levacic, & Mitchell, 1991, p. 22). This mode of coordination serves as a mapping device in this chapter. Chinese education shares some similarities with the mode of governance in Western countries in the sense that the state was once central but now there is a shift from hierarchy to market. However, the trajectory is different to that of the West's, because Chinese society has undergone tumultuous changes in its socio-economic, political and cultural realms (Tsang, 2000).

Chapter Three (**Theorising Network Governance)** constructs a theoretical framework for this study. The chapter starts with reviewing the trajectory towards governing through networks in the West and in China. By borrowing the concept of 'governance' that has been developed in political science, it positions this form of governance as new governance. It elaborates this concept by comparing a definition of network governance in Western political science and policy sociology and *Mohe* (Xia, 2008), which provides an Asian concept of 'network governance' based on research on governance in China. It then localises the concept to China by drawing on commentaries from Rhodes, Ball, and Zhang, Jong and Koppenjan. This methodology reveals thematic differences related to: the power of the state / 'hollowing-out' of the state; membership in a policy community; the power relationship between state and social actors; and resource exchange between actors.

Chapter Four **(Methodology)** outlines the methodology of this study. It explains the difference between positivism and interpretivism and the debates around quantitative and qualitative research and my decision to use a mixed method. I argue that an explanatory mixed method approach is a suitable research paradigm in this study, because it considers both quantitative and qualitative data, which will provide a better understanding of my research problem than with either type alone. Quantitative data (statistical data from Chinese yearbooks) are used first to show a perspective on the problem and then qualitative data (government documents and interviews) are used to refine the results from the quantitative data. This chapter introduces the research locations (Harbin and Shenzhen), participants' recruitment and profiles, methodological issues and indicates ethical considerations.

Chapter Five (**The Trajectory of State-owned Enterprises Education**) establishes this study case of a Chinese SOE school during Chinese public education reform. Under the impact of globalisation and the Chinese Open Door Policy, SOEs were required by the central government to detach from the Ministry of Education under the Modern Enterprise System in 1993 in order to enhance their market competitiveness in relation to multinational corporations worldwide. This chapter traces the birth and rise of SOE schools in China since 1949, the year of Chinese government established under the Chinese Community Party. It builds on 15-year data from government reports and Chinese statistical yearbooks to report a general landscape of provision of education by SOEs, which includes numbers of, and diversity within, SOE schools in general and in the Ministry of Railway, their distributive location and funding. This chapter also explores the reasons and methods for detaching schools from SOEs.

Chapter Six **(Mode of Governance in SOE Schooling)** indicates that governance in Chinese education is a complex issue. The governing model in Chinese education system includes public, private (*Sili*) and community (*Minban*). The chapter outlines four different pathways (general education, vocational education, adult education, and non-formal and lifelong education) to argue that public schools still dominated in China. Although SOE schools are grouped into state-owned system of public education, they are not run by the Ministry of Education, but by SOEs. This chapter provides a picture of the governance model in SOE schools under the central planning system and the flow of decision making and bargaining of railway schools between governments and railway departments at various levels (central, provincial and district) under the Modern Enterprise System. This chapter provides a case of the transformation of ownership in a railway SOE school at Shenzhen. It shows how top-down policy is

implemented from central government to ministry level, to province level, to municipal city level and finally to the district level. Networks support negotiation and bargaining at the district level, which influences the education policy of the central government.

Chapter Seven (**Policy Implementation through the Transaction of Differentially Valued Resources**) follows on from the previous chapter to argue that network governance permits the exchange of resources that are differentially valued by different actors, which allows for the negotiation of win-win outcomes by transacting differently valued 'goods' in the process of negotiating agreements about governing. This chapter provides evidence that resource exchange between key actors that are networked by the SOE schools make a significant and positive contribution to the process of policy implementation in China. It provides an alternative approach to solve the education problem, which is different from the most common and directed method of administrative force of governments. The chapter explores the main actors and their goals, perceptions and strategies in this policy arena. It reports seven problems that have been solved through resource exchanges between actors. These problems are disqualified teachers, excess teacher, retired teachers, teacher salaries, school funding, school assets and non-teaching staff arrangements in the General Education Department of Railway Bureaus.

Chapter Eight (**Governing public education reform in China**) concludes this study by arguing that public education reform in West and East has gone through similar trajectories in modes of governing. It assures network governance contributes to processes of policy implementation in China. The process of resource transactions allows different parties to negotiate resources that they each value in different ways,

which facilitates the work of making agreements about governing. Network governance is a useful concept for understanding public education reform in West and East. The chapter reports that how this study contributes to network governance theory and its limitation and implications. It explores future possible research about Chinese education reform using network governance theory.

1.6 Summary and commentary

This chapter has presented an overview of the study. It is based on Rhodes' (1997) governance as a self-organising network to investigate public school reform in China by looking at independent actors within the educational network who exchange resources in order to achieve their objectives. This study examines railway SOE schools under the implementation of the Modern Enterprise System as a case study of network governance in Chinese public education reform. It is an exploration of the implementation of education governance and the ways in which it has shaped and impacted on public education.

This chapter has outlined the context of the study, the research questions and rationale of the study. It has also defined the key terms of this study, namely, State-owned Enterprises, state-owned enterprise schools and Modern Enterprise System. It presents the scope of the study.

CHAPTER TWO

Education and Modes of Governing

2.1 Introduction

There is a longstanding debate about the best way that government should fulfil its responsibility to educate citizens and the form of institution that should be used. Currently, public education systems are in the process of rapid and far-reaching change that is shifting the mode of governance from bureaucracies to markets and networks.

This concept of 'governance' focuses attention on the way states coordinate the exercise of state power through social institutions in order to govern societies. The chapter explores the trajectories of governance that have contributed to public education reform in Western and Chinese contexts by drawing on scholarly literature and education acts or laws in the United States of America, United Kingdom, Australia and China. It also explores how states involve education in processes of governing through different 'modes of coordination' (Thompson et al., 1991, p. 22).

The 'mode of coordination' is used as a mapping device in this chapter. Three modes of coordinating social life are identified as ideal-types: hierarchy (state), market and networks (Thompson et al., 1991). Each mode is a particular way of governing socio-economic organisations (Thompson et al., 1991). They each entail specific governance mechanisms with their own consistent logic.

The mode of coordination within hierarchy is based on command and is rule-

driven. The directional flow of authority and demands is 'downwards' from the national government to sub-national governments in a pyramid type matrix that is familiar in many organisational arrangements with centralised administration and management.

Markets coordinate social organisation through exchange relations where competition is organised through price settings that regulate availability and scarcity. Decision-making is decentralised because it is the choices of individual economic agents that determine resource allocations and distributions in open market mechanisms.

Networks provide a horizontal, self-organising and inter-organisational mode of coordination through relationships where shared understandings, loyalty and trust develop (Seddon, 2002). In these networks, interdependent actors participate in the policy making process by exchanging their resources to achieve their collective goals. This network mode of governance will be elaborated in Chapter 3.

Each of these modes of governance has been used by states to coordinate the education of their nations. In Western countries, three main periods are identifiable over time: establishing public education, governance through centralised systems, and governance through decentralised systems. Chinese education shares some similarities with the modes of governance in Western countries in the sense that the state was once central, but is now shifting from hierarchy to market. However, the trajectory is different to that of the West's, because Chinese society has undergone tumultuous changes in its socio-economic, political and cultural realms since 1949 (Tsang, 2000).

This chapter argues that the development of education in the West and China shows how the development of forms of public education relied on changing relationships between states and their societies as the character of state regulation and support varied. This reform trajectory shifted from a centralised to more decentralised model in both the West and China, although their features differ.

Accordingly, the chapter begins by reviewing the establishment of public schools in the West and in the Chinese context. It elaborates the historical trajectory from a centralised governance system in education, and the turn towards a decentralised governance system in education. The chapter concludes by summarising key points of the argument and concluding remarks.

2.2 Establishing public schools

Public education has a long history in Europe. Ideas concerning the social contract and public education were explored by Comenius, Locke, Rousseau, and other European philosophers in the late 16th and early 17th centuries (Spring, 2005). The United States established the first public school under the Old Deluder Satan Act of 1647, which required every town of fifty families to hire a schoolmaster with local funds, who would teach their children to write and read, and every town with one hundred families to establish a grammar school to prepare children to attend Harvard College (Barger, 2004). Other Western countries, like the United Kingdom and Australia, established public schools in the 19th century.

The 1833 Factory Act in the United Kingdom was passed to allow children to access education. This Act introduced two compulsory hours of schooling each day for

children in order to improve their knowledge, skills and prospects while they were working in factories. Students could attend school inside their own factories, in church schools or dame schools. Higginson(1974) mentions that dame schools played a very important part in the beginnings of elementary education in England. They were run by women who taught a little reading, writing and arithmetic. The Elementary Education Act of 1870 set the framework for schooling all children between ages 5 and 12 in England and Wales and the 1876 Act stated that it was "the duty of the parent of every child to cause the child to receive elementary instruction in reading, writing and arithmetic" (Woodhead, 1989, p. 1). The Act created the first local school boards which compelled attendance. These were the first local authority-run schools. In the Education Act of 1891, elementary education was made free in UK.

The Education Act of 1872 in Victoria, Australia gave control over schools to the State of Victoria, which was the first of the Australian colonies to set up a central public school system based on the principles of free, secular and compulsory education (Macintyre, 1991). The Education Act of 1893 abolished elementary school fees, provided for co-educational elementary schools and made attendance compulsory for children between the ages of six and fourteen years (State Records Office of Western Australia, 2011).

The history of education in China can be traced back to as far as the 16thcentury B.C. in the Xia Dynasty. However, for much of that time education was the privilege of elites from upper class families (Su, 2002). Later on in the Han dynasty (206 B.C. – 220 AD), a form of public education system was established. It was not only elites that could study in school, but also non-elite men, who could use education as a path to

become a '*Chun Tzu*', or gentleman. At that time, the education of women was rare, because China was a male-dominated society. In ancient Chinese society, it was believed that ignorance was a virtue among women. Old fashioned sayings like "An ignorant woman is a joy forever (一個無知的女人永遠是快樂的)" and "A woman who lacks talent is virtuous (女子無才便是德)" were given as reasons to discourage and intimidate women from receiving proper education. The centre of public education was the Imperial Civil Exam System, which selected imperial officers in the period between the Han and the Qing dynasties (1644-1911)(Elman, 2000; Miyazaki, 1976).The period 1911-1949 was China's Republican era under the leadership of Sun Yatsen after the end of imperial rule. It was a very turbulent period of Chinese history, because of civil wars and the Japanese invasion (W.-H. Yeh, 2000).

The Chinese Communist Party (CCP) under the leadership of Mao Zedong assumed full power in 1949, and the national system of education was built. Chinese education was transformed from the privilege of the elite to the right of the working class. The Chinese government took over all private schools, and converted them to public schools through the nationalisation of educational institutions (R. Chan & Wang, 2009; Tsang, 2001; Z. Xu, 2001). In 1951, the Chinese government implemented the first national policy "the Decision on the Reform of Education System" to regulate education by standardising the years of schooling and restructuring the connections of different stages of schooling (Yongkun Fan & Wu, 2012). In 1952, The Ministry of Education announced "The Provisional Regulation for Primary schools" and "The Provisional Regulation for Secondary schools" to give the central government and local governments control over all types of schools (Yongkun Fan & Wu, 2012). China's

Compulsory Education Law was first promulgated in 1986 (H. Wei, 2008).

In summary, the state drove the development of public education for citizens in both Western countries and in China through the implementation of Education Acts and Laws to regulate education, and provided actual practices and resource to run the schools. The state administered education through hierarchies that combined and coordinated the efforts of education departments or agencies of national government and sub-national governments. However, the Chinese government was also involved in education through State-owned Enterprises that provided education to employees and the children of the employees. In the next sections, I will explain in detail two modes of governance, namely, governance through bureaucracy and governance through markets.

2.3 Governance through bureaucracy

During the late 19th and first part of 20th century, public schools in many countries were organised as a centralised system. The central administrative board of education and associated local boards controlled all aspects of education, including the curricula and examinations, finance, student enrolment, teacher recruitment and inspection (Green, 1997).

This centralised system was governed by hierarchy. This is a style of governance based on the ideal type of bureaucracy developed by the German sociologist Max Weber (1864-1920) in the early 20th century. It is defined as "a system characterised by a division of labour, a clearly defined hierarchy, formal selection, formal rules and regulations, impersonality and career orientation" (Robbins, Bergman, Stagg, & Coulter,

2000, p. 48). It is distinguished by five key points:

- **Division of Labour:** The division of labour and tasks is linked to specification of jobs with detailed rights, obligations, responsibilities and scope of authority.
- **Clearly defined hierarchy:** There is a disciplined hierarchy in which officials are subject to the authority of their supervisors within a system of supervision and subordination.
- **Formal Selection:** There is a high level of formalisation with employment decisions based on merit and employees recruited on the basis of proven or at least potential competence and experience. Assignment of work and the hire of personnel is based on judgments of competence and experience.
- **Formal rules and regulation:** Authority is impersonal and organised through detailed rules that govern official business. Authority is vested in officials who act in accordance with laws and regulations. This rule-governed organisation creates the unity of command.
- **Impersonality and career orientation:** government officials are employed full time and for life. This security of tenure encourages and values neutrality in service. They do not own the 'means of administration', their jobs, or the source of their funds, but live on a salary. Their promotion is according to seniority or merit (Hall, 1963; Maroy, 2009; Ouchi, 1980; Weber, 1991; Woods, 2003).

Bureaucracy is centralised and decisions are made by those in authority (Mitchell, 1991). The top-down command structure coupled with delegated authority,

clear rules and pre-determined outcomes ensure that subordinate bodies act in a coordinated manner (Thompson, 2003). Mitchell (1991) states that lower levels in a hierarchy have “more narrowly defined tasks with less and less autonomy” (p. 103). Broadly speaking this structure can be called ‘administration’ or ‘management’.

In the United States, historical studies describe a ‘One Best System’ that developed on the principle of universal public education. The institution moved from a predominantly rural community school system in the early 19th century to the urban school system through political negotiations over school reform and bureaucratisation (Tyack, 1974). By the 1970s, centralised governance had formalised a uniform system of schooling, creating greater equity between citizens (Kantor, 2001). However, this ‘one best system’ was criticised on the grounds that it showed institutional and instructional rigidities that created inequalities in both the motivation and preparation of students from diverse backgrounds (Grubb, 1996). Similarly, Chubb and Moe (1988) argue that “[t]he ‘one best system’ had provided the institutional framework within which problems have been identified and policy responses chosen. It structures criticism and reform, but it is never their target” (p. 1065). Kantor (2001) argues that “many studies have questioned Tyack’s interpretation, but none of them have replaced his main argument. The One Best System remains the most influential study of the changes in institutional structures and ideology that have shaped the history of urban education since the late 19thcentury” (p. 320).

In the United Kingdom, the Education Act of 1902 set up the Board of Education and the Local Education Authorities (LEAs) as means of administering and providing a coherent education system that brought together previously disparate educational

arrangements. LEAs replaced individual school boards to organise funding, employ teachers and allocate school places. Around 93 per cent of 5-16-year-olds were being educated in state schools, most of which were maintained by LEAs (Whitty, 2000). From 1965, grammar schools became fully independent and charged fees, while still retaining the term “grammar school” in their title. During the 1970s, there was something of a moral panic about standards in education, because it was claimed that Britain seemed to be falling behind many of its global competitors (Gleeson, 1992).

In Australia, there was increasing centralisation of education policy in the post-war period (1945-1975)(L. Foster & Harman, 1992; Harman & Smart, 1982). Although state governments were responsible for schools, the Federal government became involved with school education with the establishment of the Australian Schools Commission in 1973. As the Federal government implemented policies on education reform it became a more significant player in policy making, for example, by using federal funding to introduce science laboratories and school libraries for all Australian schools (Henry & Taylor, 1997). The Federal government used various policy instruments to shape the conditions of schooling, such as regulating the balance, growth and level of funding between private and public education sectors; controlling the curriculum; regulating the credentialing process; regulating the conditions of work of teachers; regulating professional standards; accounting for funding and performance (Angus, 1997).

Prior to the Open Door Policy, which began in 1978, Chinese society was often described as “closed, conservative, authoritarian and hierarchical” (Qi & Tang, 2004, p. 466). Education in that period was centralised and monopolised by the state (Mok,

1997c). Education governance could be characterised as a “highly centralised” or “state dominated” model in China (R. Yang, 2004b). Under such a governance model, the MOE took responsibility for the design of curricula, syllabuses and textbooks, student admission and graduate job assignment and also exerted control over budgets, salary scales and personnel issues (Mok, 2003). The schools were organised in ways that emphasised political and ideological education, with their education theory based on Marxism, Leninism and Maoism (Tsang, 2000). Provincial and local education commissions and bureaus were simply mediators of national policy. Equity was one of the most important principles in the CCP and the education system was regarded as a vehicle for promoting social equality and socially-oriented goals. Equity was central to the formation of public education globally and China was no exception to this motivation. However, without sufficient funding for a policy of universal public education, the government applied the strategy of “walking on two legs”, which meant that the provision of education was organised by both government (through the Ministry of Education and State-owned Enterprises) and communities. Community-based schools were controlled by government, with communities only providing the funding.

Bureaucracy remains the most efficient mechanism for integrating the activities of a large group of people and of making an organisation work effectively (Jaques, 1991). Top-down administration through central-local governments was the main mode of coordination in centralised education in the West and China before the 1980s. Equity was one of the major principles that ran through the organisation of public education. However, bureaucracy also is known to kill initiative and crush creativity due to excessive layering of roles, positions and delegated authority (Jaques,

1991). Despite being the main approach in public sector organisations, these constraints were significant in prompting critiques of hierarchy in the 1970s (Considine & Lewis, 2003; Thompson et al., 1991).

2.4 Governance through markets

Economic pressures were a key factor in moving away from an input approach towards a focus on educational outcomes (Welsh, 1999). Following the worldwide recession of the 1970s, economic growth slowed, while public expenditure continued to increase. In the 1980s, central governments introduced some major policy initiatives in education, which drove decentralisation of administrative bodies and transferred decision-making processes to lower levels of government and privatisation of schooling (Daun, 2004). The main reasons for calling on these market-based solutions to reform education was to reduce public expenditure (Zajda, 2004), cater to market demands (Kwong, 2000) and emphasise effectiveness and efficiency of delivery (Walsh, 1995). However, the logical arguments advanced to support these claims are much contested (Ball, 1990; Carnoy, 1993). The education market, as a policy alternative to "public monopoly education", was clearly an education policy flavour across the Western world in the 1990s (Ball, 1993, p. 3).

Market coordination was the second ideal type after Weber's bureaucratic ideal type had become the prototype for a classical hierarchy (Meuleman, 2008). Free market liberalists emphasised individual rights and a belief in the efficiency of the market as a rationing and allocative mechanism (Adnett & Davies, 2002; Marginson,

1992). The invisible hand of the market is presented as the 'natural' force that guides market participants through competition for scarce resources. According to Adam Smith (1766), the founding father of economics, in a *laissez-faire* market each participant interacts with other participants to maximise self-interest by exchanging goods and services. It enables each participant to be better off. In a 'free market', no government regulation or intervention would be needed to ensure that the mutually beneficial exchange of goods and services took place, since this "invisible hand" would guide market participants to trade in the most mutually beneficial manner. Economists call this equilibrium state Pareto efficiency. Pareto optimality is reached when resources are allocated in the most efficient manner.

Privatisation is a market instrument designed to shift a function, either in whole or in part, from the public sector to the private sector (Whitty, Halpin & Power, 1998). It represents a process of devolving responsibility for social provision to agencies beyond the state (D. Johnson, 1987), reduces state provision, state subsidy and regulation (Le Grand & Robinson, 1985), and changes the nature of government involvement (C. Foster, 1992). Decentralisation is another market instrument which can be defined as "a transfer of decision making powers from higher levels in the official hierarchy to lower ones, from the centre to the periphery" (Nir, 2003, p. 27). The aims of decentralisation are to increase school autonomy, increase decision-making authority at the school or operational level, including autonomy around the use of resources, such as finance, human resources and curriculum (Lindblad, Johannesson, & Simola, 2002).

Through the 1980s, parental choice was also promoted to drive change in

education by those who believed that families' voices had been ignored. Market mechanisms were seen as the means to make educational providers deliver services more in line with what their clients really wanted; competition was also seen to stimulate improvement. Many free market advocates like Turner (2004), accused public schools of a lack of efficiency, effectiveness and quality of learning. They believed that market competition was the best way of promoting these features within education. Whitty, Halpin and Power (1998) explained that many countries had experienced degrees of devolution and choice in education, with schools being given greater autonomy to manage their own affairs and parents being given increased opportunities to choose their children's schools. As early as 1962, Friedman (1962)argued that a competitive private educational market, serving parents who are free to choose the school they believed best for each child, would revolutionize schooling.

In the United States, the 1980s was a challenging decade in terms of debates about the quality of education. A federal report entitled "*A Nation at Risk: The Imperatives for Education Reform*" stated that "[e]ach generation of Americans has outstripped its parents in education, in literacy, and in economic attainment. For the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents" (NCEE, 1983, p. 12). This report indicated very low academic achievement in public schools and that states were taking up more responsibility and active involvement in schooling. Since the 1980s, the performance of the US school system deteriorated both in international comparisons, such as the Programme for International Student Assessment (PISA), and as measured against the needs of an ever more knowledge-intensive economy (Liebman & Sabel, 2003). This federal report stimulated much soul-searching in the US

and prompted a whole series of major attempts to reform the government education system in terms of education quality by introducing vouchers, tuition tax credits, charter schools and full privatisation. Each mechanism that drives education reform has a distinct history.

In the United Kingdom, the period from 1979 to 1990 was termed and endorsed as “Thatcherism’: the marketisation of education” (Gillard, 2011). Like education policy under the administration of Ronald Regan in the United States (1981 - 1989), the education sector under Margaret Thatcher was brought into an economic liberal framework from the early 1980s. The main features of Thatcherite ideology were a belief in economic individualism and the market (Whitty, 2005). Quasi-markets developed as funding followed pupils through *per capita* allocations and parents were given new rights to select schools other than their local one. The market was stimulated by the removal of artificial limits on enrolment, allowing successful schools to attract more pupils. In the UK, the construction of markets was regarded as a vital ingredient in the renewal of education in the 1980s (Lindblad et al., 2002). The 1980 Assisted Places Scheme (APS) and the 1988 Education Reform Act (ERA) were both identified as mechanisms to open up the maintained school sector to market forces (Levacic, 1992). The APS sponsored academically able but poor students to enrol in private schools (D. Chan & Mok, 2001). In the other words, sponsorship was designed to transfer high-ability pupils from low-income families in the maintained school sector to the private sector.

The ERA institutionalised two key marketisation strategies: Local Management of Schools was implemented in 1991.The UK government used pupil-driven formula

funding and delegated authority for school budgets to the school level (Levacic, 1992). Cooper (1988) added that decentralising budgets to schools was intended either to encourage or push schools to look for industrial and commercial sponsorship. Opting out of local government control and gaining funding directly from central governments was illustrated by Grant Maintained Schools and City Technology Colleges. Chubb and Moe (1992) endorsed the ideology of market competition that underpinned the establishment of these schools, saying that, by increasing the number of these high-quality schools, unfavourable schools would either improve their performance or go out of business.

Australia was not immune from the marketisation of education that appeared in every corner of the world. Marketisation of education affected all sectors of education in Australia and accelerated after the change of federal government in 1996 (Marginson, 1997; Seddon, 1997). These market reforms framed education as a commodity (Marginson, 1993, 1997). As the market becomes the ascendant metaphor for education, there was a clear permeation of business values and commercial vocabulary into educational discourse. Old values of community, cooperation, individual need and equal worth, which arguably underlay public systems of comprehensive education (Ball, 1994), were replaced by values that celebrated individualism, competition, performativity and differentiation.

Bonner and Caro (2007) warned that Australia had embarked on a radical and unique education experiment and, if current policies and trends did not change, Australia would become the first Western democracy to dismantle its public education system. Evidence for this argument is illustrated through the bankruptcy and closure of

ABC Learning Centres in Australia in 2008. These Learning Centres provided private early childhood education services across Australia. This case showed there can be significant costs when private investors buy in to public education without close monitoring and proper regulation. It seriously affected 120,000 children and 16,000 employees in 1,040 centres (Saurine, 2009). Anthony Jensen, the research director of the Australian Employee Ownership Association, argued that the demise of ABC Learning Centres has shown that the care of the children is too important to be left in the hands of profit-driven big business (Brown, 2009). This assessment echoes Ball's (1993, p. 4) description of educational entrepreneurs who "give little attention to the commitment to 'service'" as "they take self-interested behaviour to be a necessary virtue". Recently, John-Paul Langbroek, Minister for Education, Training and Employment in the state of Queensland, invited state schools to become independent public schools by offering them AUD$ 50,000 a year. He advocated that these schools would be able to accept business sponsorships to boost their budgets, and provide incentives to attract better teachers (Ironside, 2012). However, self-interested businesses will not sponsor schools without getting a return, such as advertising or selling their commercial products in schools.

In China, public education suffered disruption during the ten years of the Proletariat Cultural Revolution between 1966 and 1976 (J. Yang, 1993; R. Yang, 2004a). The Revolution signalled the unchecked ascendancy of collectivist ideological goals in educational policy making (Hannum, 1999). Professors, teachers and intellectuals were removed from their positions of authority and stripped of their privileges. They were sent to factories, villages and remote places to be "re-educated" (Kwong, 2000). Many schools were closed during this period. When these schools resumed, the ideological

agenda of eliminating class differences between urban-rural and worker-peasant dominated the classroom and the curriculum (Hannum, 1999).

In the post-Mao period (1976 -), this intensely centralised governance model was seen to be inefficient governance of administration and ineffective in-service delivery. To create greater educational opportunities, the Chinese government adopted a policy of decentralisation from the 1980s to transfer authority (especially financial) and decision-making from higher to lower levels (D. Chan & Mok, 2001). Educational policies in China between the 1960s and 1990s were characterised by bold moves, major shifts and reversals (Tsang, 2000).

The implementation of the Open Door Policy was announced by Premier Deng Xiaopeng in 1978. He insisted that “education must face modernization, face the world, and face the future”(Yen, 2005, p. 18). This policy drove changes that gradually increased interaction between China and other countries and emphasised that education development must align with national economic development. In 1992, Deng introduced the notion of a 'socialist market economy'. China remained a socialist state, but was increasingly shaped by market forces (Bray & Qin, 2001). Since then, all aspects of Chinese society have been transformed dramatically from isolationist, politics-oriented policies to economics-oriented policies during the transition period from planned economy to market economy (M. Sun, 2010; R. Yang, Vidovich, & Currie, 2007).

Prior to decentralisation, Chinese ‘State-owned Enterprises School’ was one category of public school in China while ‘Common Schools’ was a category of public

school in the West (Kaestle & Foner, 1983). The movement towards privatisation created new trends. The Constitution of 1982 (National People's Congress, 1982, article 19) stipulated that "the state encourages the collective economic organizations, state[-owned] enterprises and undertakings and other social forces to set up educational institutions of various types in accordance with the law." This constitution created a base for developing and regulating private education under the governance of the State Council and the Ministry of Education.

In the education sector, the flourishing market economy and policy of decentralisation has deeply influenced China's educational development. The changing role of the State in regulating and financing the provision of educational services indicates that China's educational development underwent a process of marketization, although the Chinese experience is different from that Western countries (Kwong, 1996; Tsang, 1996; X. Wu, 2008). China's "comprehensive experiment of decentralisation in education" (K. M. Cheng, 1994b, p. 799) covered all levels of government and all sectors of the education system. These decentralisations shifted power and financial responsibility from the formerly centralised system with a narrow revenue base through central government to a decentralised system with a diversified revenue base through local governments (K. M. Cheng, 1994b; Harris, Zhao, & Caldwell, 2009; Litao Zhao, 2008). Local governments were formed at the administrative level of provinces, cities/counties, townships, and districts/villages. Governments at the city/county level and below had primary responsibility for primary and secondary education (Tsang & Ding, 2005).

This decentralisation of finance and management has created provincial and regional disparities (K. M. Cheng, 1994a) that lead to disadvantage in economically underdeveloped areas. To reduce the inequity in financing of public schools, both the central and provincial education budgets have categorical allocations to aid poor areas (Liang, 2001). In 2001, the provincial governments of the central and western regions did not have sufficient funds to support compulsory education (primary school year 1 to secondary school year 3). The central government introduced some degree of recentralisation of finance by putting more money in these regions, although these regions remain relatively poorer than eastern coastal regions (Litao Zhao, 2008).

The concept of parental choice in schooling is becoming familiar in China. With the rapid growth in the Chinese economy, parents in the rising middle class realise that educational credentials are positional goods. Unlike the top-down policy framing approach in Western countries, in which the government plays an key role in the implementation of parental choice (Gewirtz, Ball, & Bowe, 1995), parental choice in China is a bottom-up approach, which is initiated by parents through high 'choice fees' and power or *guanxi,* which enable those with money and connections to obtain a place in the desired school (Tsang, 2001). Key (selected) public schools are predominantly chosen by parents because these schools have highly qualified teachers, better equipment and greater funding (X. Wu, 2008; You, 2007). Parents believe that education in key schools will give their children a better chance to be admitted to one of the finest universities in China.

Parental choice in the West is in a different scenario. Public schools in the West have experienced increased degrees of devolution and choice in education. For

example, schools have been given greater autonomy to manage their own affairs and parents have been given increased opportunities to choose their children's schools, along with increased government regulation and surveillance (Whitty et al., 1998).

In China, the above mentioned movements in education governance have created new trends towards privatisation in education. In 1986, the Law of Compulsory Education mandated nine years of schooling throughout China. It allowed students to access and receive basic education through the implementation of nine years of universal schooling (six years of primary school, three years of middle school). This large-scale education reform was carried out in different phases depending on the local level of socio-economic development (Liang, 2001). The 1999 action plan for education development entitled "Furthering Education Reform and Promoting Quality-Oriented Education" included the following: the implementation of quality-oriented education at all levels, the continuation of a national compulsory education program in poor areas accompanied by increased government funding, and finally, the development of private education institutions.

2.5 Educational governance: from State to market

This chapter reveals shifting patterns of educational governance in United States, United Kingdom, Australia and China. Centralised governance through hierarchies was the significant mode of organisation in the early establishment of public schools. However, more recently there has been a shift from centralised and hierarchical governance, to decentralised and marketised governance.

These patterns of governing public education are evident in both Western countries and in China. They have all entailed the involvement of the State in implementing education laws, regulations, and providing resources to run schools. These processes have relied on growing relationships between the State and dispersed citizen-communities. They have been organised through local governance and administrative arrangements, although the character of state regulation and support has varied.

This trajectory from a centralised to a decentralised model of educational governance reveals centralisation-decentralisation as an instrument supporting changes in society. Both State and market are 'modes of coordination'. Achieving the right balance between centralisation and decentralisation has been fundamentally important, as have been the motives involved. Decentralisation is an important mechanism for change but cannot be the goal itself. Decisions to decentralise-centralise depend on considerations of how best to achieve defined educational goals and to improve the quality of learning and student achievement across citizen-communities. When the right governance balance is not realised, pressure builds for further problem solving related to the mode of coordination.

The next chapter discusses the shift to the next phase of governance through networks as a new mode of coordination, that develops as the limits of both state and market education governance become evident. It will elaborate the important perspective of network governance in Western and Chinese school reform and show how network governance has been used in public school reform.

CHAPTER THREE

Theorising network governance

3.1 Introduction

Changing economic and social conditions in the late 20th century created challenges for governments around the world. Disappointment in the state as an effective political steering centre of society encouraged the search for alternative modes of guiding and coordinating socio-economic development in both the West and in China. In Western education, this questioning of government resulted in a shift from state to market coordination that gathered pace through the late 1970s. In China, economic and social transitions since the 1978 Open Door Policy have also been linked to changes from centralised to more decentralised practices of governing that have had effects on the relations between the Chinese State and its system of education.

In Western social science, this transition in the mechanisms used to coordinate and govern everyday life is described as a shift from 'government' to 'governance' (Jessop, 1998; Rhodes, 1997). It acknowledges that decision-making processes are increasingly embedded in and realised through networks, rather than being enacted through the centralised power of a sovereign state. In this way, 'governance' is seen to be a non-hierarchical mode of governing, where non-state actors participate in the formulation and implementation of public policy. Governance occurs through networks but without significantly weakening or loosening state control of education.

The significance of networks in the transition from government to governance in China is less well documented. On the one hand, there is evidence that China's

central government remains a significant political force in processes of governing. On the other hand, Xia Ming (2000) uses the Chinese term *Mohe* to represent the concept of 'network governance'. He explains that:

> In Chinese, '*Mohe*' combines two words: '*mo*' means 'friction' between two objects or conflict between people. '*He*' means 'cooperation' or 'congruence'. *Mohe* is often interpreted as a 'grinding process', as happens to new cars or machines in which new parts adjust themselves in order to accommodate each other and work in harmony. Its best equivalent in English is 'co-petition' (a combination of cooperation and competition, coined recently by a scientist), which also has accurately connoted the crucial meanings of *Mohe*: it is a process in a time frame. Friction exists, but it does not grind an entity (either a group, a system, or machinery) apart. Rather it helps each part to smooth its jarring quality and form an everlasting coexistence. Since in this situation all actors lose part of their original qualities which cause disharmony, there is no actor with an absolute hegemony to impose its will upon other actors completely; it is hard to argue who is a winner and who is a loser. The more important feature is the reciprocation of cooperation and mutual restraint (Xia, 2000, p. 194).

Historically, *mohe* is used in Chinese to represent the process by which autonomous actors accommodate each other to solve societal problems and achieve their collective goals. It captures governing effects that accompany continuing processes of cooperation through friction and mutual adjustment. Using *mohe* as a Chinese lens, I compare the Western concept of 'network governance' with commentaries on how autonomous actors are coordinated in Chinese public policy processes in order to refine the theoretical framework for analysing public school reform in China.

Approaching network governance in this way uses an Asian concept as the

reference point, rather than simply framing an analysis through the conceptualisation provided by the West (Chen, 2010). Documenting how Chinese scholars use the theoretical elements developed through Western political science and educational research provides a way of comparing how network governance is theorised in the West and in China. This strategy problematizes Western concepts in the light of Asian history and intellectual traditions. It encourages Asian dialogues, rather than assuming that Asia will take up the ideas of the West (P. W. K. Chan & Pardy, 2012).

Accordingly, the structure of this chapter is as follows: Section 3.2 reviews the trajectory of governing through networks in the West and in China. It discusses how policy developments shift the locus of governing away from centralised government through decentralised decision-making processes and by encouraging increased participation by non-state actors. Section 3.3 provides an understanding of 'governance' and reviews governance as a theoretical framework. The section draws on Western and Chinese research in political science to distinguish network governance from other modes of governing. It compares Western and Chinese theories of 'network governance'. Section 3.4 reviews a Western definition of network governance and educational governance that examines the linkages between knowledge and policy. It then localises the network governance concept to China. Section 3.5 summarises the key points of the argument and offers concluding remarks.

3.2 The trajectory towards governing through networks: the West and

in China

Governments around the world have responded to late 20th century challenges by shifting their ways of guiding and coordinating socio-economic development. The shift from state to market coordination that gathered pace through the late 1970s in the West and China created new challenges. Problem solving to address these emerging pressures acknowledged the value of local networks in mediating the operations of both state and market arrangements. These trends developed in a wide range of public policy fields, including education.

In 1989, the World Bank identified a "crisis of governance". Its report "*Sub-Saharan Africa: from crisis to sustainable growth - a long-term perspective study"* highlighted the economic and social benefits that would occur through better government (World Bank, 1989, p. 60). Since then, the idea of 'governance' has become an issue of intense debate in different disciplines within the social sciences such as public administration, international relations and comparatives politics (Puppis, 2010; Treib, Bähr, & Falkner, 2007). However, governance means different things to different people and international organisations. While there is no universally accepted definition of governance (Kersbergen & Waarden, 2004), the significance of increasing participation in decision-making is widely acknowledged. This idea of governance through networks can be seen as:

> The sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action may be taken. It includes formal institutions and regimes empowered to

enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest (Commission on Global Governance, 1995, p. 2).

3.2.1 Western trends

In the West this phase of education reform was marked by the growth of social partnerships, collaborations and networks that affect a nation's educational policy and resource settings. It shifts the mode of governing education from centralised and bureaucratic government to governance in and by networks (Ball, 2008). This is a significant policy trend in many countries and is being promoted by global agencies, such as the OECD and World Bank (Lawn & Lingard, 2002; Seddon, Billett, & Clemans, 2005; Sellar & Lingard, 2013). Network governance has been identified as a way to improve public schools by introducing flexible, best practice approaches into the classroom (Liebman & Sabel, 2003). Wohlstetter, Malloy, Chau and Polhemus (2003) confirmed this point, showing that in urban schools, stakeholders are actively collaborating in the reform process.

In the United States, key educational policies, the *'No Child Left Behind'* in 2001 and '*Partnership Schools Comprehensive School Reform'* in 2005, promoted school, family and community partnerships as an important ingredient in student success and outcomes in schooling (Epstein, 2005). After examining over 300 U.S. schools that developed high-quality programs of school, family, and community partnerships, Sheldon and Van Voorhis (2004) concluded that there are growing numbers of schools that pursue their goals by working in partnership with families and communities in order to better educate and socialise students.

In the United Kingdom, 'Third Way' politics created a partnership between neo-liberal capitalism and traditional social democracy (Whitty, 2005). The government specifically acknowledged concerns about the negative effects of quasi-markets and pledged a commitment to the pursuit of social justice (Blair, 1998). Contentious issues in education policy illustrate some of the tensions in the government's attempt to combine market approaches and social justice. They include commitments to tackling disadvantage, focusing on school improvement, and linking of excellence and school diversity. Evans, Castle, Cooper, Glatter and Woods (2005) stated that during the New Labour administration in the UK, education policy discourse in England moved from a position of individualised school improvement through competition, to one where there was an emphasis on 'partnership' and 'collaboration' as key mechanisms for improvement. The government supported a range of initiatives based on different kinds of multi-agency partnerships, including Education Action Zones, the Excellence in Cities programme and Excellence Clusters. These initiatives had significant effects on educational governance at local levels and also reshaped the function of LEAs.

Education Action Zones (EAZs) were implemented to develop partnerships between local schools, communities and firms, and to share their expertise with each other. In 1998, EAZs were set up, consisting of local clusters of up to 20 schools. The zones were based on geographic areas which faced challenging circumstances in terms of underachievement or disadvantage (Daun, 2004).

The Excellence in Cities programme and Excellence Clusters emphasised the importance of specialist schools that develop their specialism in partnership with local schools and share their expertise with others. Specialist schools could "form a focal

point for revitalizing education in EAZs working with other partners to help meet the Zone's targets for school improvement" (Department for Employment and Education, 1997, p. 39). These ideas of partnership were developed in the concrete and ambitious '*Green Paper – Schools building on success*', which had a number of suggestions for collaboration and partnership (Evans et al., 2005).

LEAs were also reformed so that they were no longer able to formulate and implement their own policies, such as financial responsibility and hiring and firing teachers. LEAs had been established under the Education Act of 1902 to administer schools and provide a coherent education system within a county or county borough. Originally, LEAs replaced individual school boards and organised funding, employed teachers and allocated school places (Whitty, 2000). Education reform in England shifted responsibility for these policy matters from the LEAs to the schools, although LEAs still had to provide and oversee the organisation of public education in their area and under their jurisdiction (Daun, 2004).

In Australian education, Public-Private Partnerships (PPP) and social partnerships have also become more common since the late 1990s. Most of the states and territories have PPP policies and key projects: NSW issued *Working with government* in 2001, Queensland released its *PPP Policy* in 2001, Victoria its *Partnership Victoria* in 2000, Western Australia its *Partnership for growth* in 2002, South Australia its *Partnerships South Australia* in 2002, Tasmania its *Guiding principles for PPP* in 2000, the Northern Territory its *Territory Partnerships* in 2003 and Australian Capital Territory its *Statement of the Objectives and Principles for the Private Provision of Public Infrastructure* in 2002 (Vann & Hayfor, 2004). A PPP in school education can

be understood as “a legally binding agreement between a public authority responsible for schools or school systems and a non-public entity that is intended to bring a benefit to each party” (Caldwell & Keating, 2004, p. i). Historically, the focus of Australian PPP projects shifted. In the early 1990s the partnerships focused on toll roads, hospitals, water and power, and spread to prisons, seaports and sport stadiums in the mid 1990s. In the late 1990s, partnerships were taken up in relation to airports, defence, schools and courts (Crump & Slee, 2005).

In education, a significant example of a state sponsored PPP is the development of nine new schools in New South Wales by a private consortium under the regulations set out in *Working with government – policy for privately financed project* (Sexton, 2003). The Victorian Local Learning and Employment Networks (LLEN) were another important example of social partnerships in Australia. Each LLEN was a ‘three sector partnership’, with government, corporate and community supporting and building shared responsibilities for post compulsory education and training, especially for 15-19 year-olds. These developments were intended to move Australian education in ways that tackled entrenched social challenges (Seddon, Clemans, & Billett, 2005). While the operations of social partnerships generated dissatisfaction, they also had significant social effects and achieved shared goals when societal and private actors (community groups, education and training providers, and industry members) participated in education policy development (Seddon, Billett, et al., 2005).

3.2.2 Governing through networks in China

It is generally believed that Chinese education is a state-owned system of public education run by the Ministry of Education. Because of China’s limited democratic

institutions, the Chinese government or its agencies dominate in education policymaking processes. Since China's administrative system is comparatively centralised, it is unusual for non-state actors to have great influence on policy outcomes (H. Zheng, Jong, & Koppenjan, 2010). Yet networks are familiar in Chinese society. The traditional culture of *guanxi* (connection) has long played a central role in Chinese society (Xia, 2000). *Guanxi* describes the basic dynamic in personalised networks of influence (Cova, Prévot, & Spencer, 2010; Ying Fan, 2002) and refers to significant networks of relationships among various parties that support one another in China or worldwide, such as Chinese diasporic networks. However, these social networks are different from the governance networks discussed in this thesis, because people in governance networks are participating in the policymaking process.

Since the Open Door Policy was implemented in 1978, a policy of decentralisation has been used in different spheres to allow more flexibility for local governments to organise their local policies. For example, the central government has decentralised decision-making regarding exports and imports to local governments or regional foreign trade corporations (S.-J. Wei, 1995). This policy facilitated the liberalisation of China's foreign trade and foreign investment regimes (Bohnet, Hong, & Müller, 1993). It allows the role of the non-state sector in facilitating economic growth and structural transformation (Chai, 1997). As in the West, partnerships and network governance developed initially in policy areas beyond education, including reform of taxation in rural areas (Tang, 2004), politics in provincial legislatures (Xia, 2008), the political participation of minorities (S. Cheng, 2010), housing and estate policy (J. W. Zhang & Lou, 2007; Y. Zhu, 2008) and public health insurance reform (H. Zheng et al., 2010).

The network mode of governance is now shaping Chinese education policies, particularly those related to private education and higher education. The introduction of legislation in 1995 to support the expansion of private education in China demonstrated the value of strategic interactions between state and non-state actors. These interactions create a dynamic and iterative game of negotiation, cooperation, and/or competition among various interested actors. These agencies which participate in the negotiation of agreements include law-making institutions, each with their own goals, authorities, information sources, and strategies (Law & Pan, 2009). Each of these actors is seen to be a rational player in the game that aims to maximise the achievement of their postulated goals.

In higher education, for example, Chinese educational governance shifted from a “state control model” to a “state supervision model”. This shift meant that education bureaucracies delegated power to local agencies that were involved in creating devolved systems of schooling (Mok, 2001). The promulgation of the “Higher Education Law” in 1998 aimed to cater for diversified social needs. The law permitted local and provincial governments more autonomy to run their higher education with various kinds of educational services. Under the decentralisation of the finance system, local governments receive less central financial support in higher education, but allow collection of funding from various channels, such as students’ tuition fees, profits from school-run enterprises, sponsorship and donations (Mok, 1997b). With this decentralised approach, the role of the central government as a regulator and overall service coordinator was strengthened rather than weakened (Mok, 2001).

The concept of ‘network governance’ captured the trajectory towards social

partnerships in education and social policy in the West, but China has not formalised this kind of partnership approach. Network governance is more limited across educational sectors at the city level. For example, vocational education has developed through decentralisation and social partnerships in Shanghai and Shenzhen. Lai and Lo (2006) report that stakeholder communities (such as industry partners, parents, policy makers, school administrators and teachers) participated in the construction of the vocational education curriculum. This initiative helped generate financial income through multiple and diverse channels and provide pathways for students transitioning from school to work. Wanghong Li (2009) claims that social partnerships in vocational education is a new trend in China.

In summary, the “crisis of governance” identified by global policy agencies, such as the World Bank, is associated with trends towards governing through networks in both the West and China. These policy developments shift the locus of governing away from centralised government by decentralising decision-making processes and encouraging increased participation by non-state actors. Yet these processes are deeply contextualised and take different forms in China and the West. Understanding these variations requires a theoretical framework that draws on both Western and Chinese theories of network governance to understand empirical examples of governing through networks in the Chinese context.

3.3 Understanding 'governance'

3.3.1 Governance as a theoretical framework

The idea of 'governance' is as old as human civilisation (Malik, 2002). As a concept it refers to social and political processes that have a transhistorical and cross-cultural reach. This means the concept can be applied in different contexts. Etymologically, the notion can be traced to the Greek verb *kubernan* (to pilot or steer) and was used by Plato to describe how to rule people effectively (Kjær, 2004). The Shorter Oxford English Dictionary defines the verb to 'govern' in terms of 'guide, direct or steer society'.

Political scientists used to treat governance as a synonym for government (Stoker, 1998), but since the 1980s the concept of 'governance' has been distinguished from 'government' and the term defines different modes of coordinating socio-economic developments. The concept of 'government' referred to the way states ruled societies through centralised decision-making processes. These arrangements contributed to the development of 'the common school', that provided a centralised means of governing societies through schooling. Now education policy processes affirm greater decentralisation and participation in decision-making.

These changes in the practice of governing were justified by economic theories, particularly agency theory and transaction cost theory. They made particular assumptions about an individual's motivations, the relationships between principal and agent, and the efficient use of contracts, and how they steered individuals' behaviours (Giguere, 2006). These economic policy frames offered strategies that enabled policy

makers to address complex economic and social problems. Identifying these processes of governing through networks in empirical cases requires an explicit theoretical framework that conceptualises the key dimensions which distinguish network governance from other modes of governing. In this section, I draw on Western and Chinese political science research to clarify these dimensions.

3.3.2 Western political science perspectives

Western theories of network governance developed through studies of policy communities. There are three distinct traditions of political science research that offer relevant insights to education and this research project. These are the Anglo-American pluralist tradition, the German-Dutch network governance tradition, and the tradition of educational governance that foregrounds culture and knowledge.

In Britain the idea of a 'policy community' is defined as a cluster of personal relationships between major political and administrative actors (Heclo & Wildavsky, 1974). In America, studies of elite policy-making documented policy communities which consisted of small, exclusive sets of actors: congress, administrative agencies and lobbying groups that interact and exchange resources (Heclo, 1978). These studies highlighted the significance of horizontal coordination in policy making that occurred as individual actors became involved in concrete policy processes (Hanf & Scharpf, 1978). These different actors operated as networks in horizontal rather than hierarchical relations.

The idea that the policy community operated as a 'network' was built on pluralist theory. Bentley (1967) and Truman (1971) pointed to the existence of

horizontal relations between government, administration and organised interests. It revealed government as a "network of activities" (Bentley, 1967, p. 261). Actors were self-organising entities in these policy processes. They were able to "resist government steering, develop their own policies and mould their environments" (Rhodes, 2000, p. 61). These actors participated in policy processes by exchanging resources and engaging in negotiations. These game-like interactions were "rooted in trust and regulated by rules of the game negotiated and agreed by network participants" (Rhodes, 2000, p. 61). Knowledge was a key resource in these transactions: in its own right and as a means towards better negotiation and engagement within relations of resource exchange (Kersbergen & Waarden, 2004).

The German-Dutch school of network governance extends the concept by focusing on the practical work of forming and sustaining networks through particular ways of managing governance processes (Kickert, Klijn, & Koppenjan, 1997; Scharpf, 1978; Sørensen & Torfing, 2007a). Klijn and Skelcher (2007) describe governance networks as a process of "public policy-making and implementation through a web of relationships between government, business and civil society actors" (p. 587). These networked actors relate to one another on the basis of interdependencies, but not necessarily on the basis of equity. The network is an emerging form of governance that reflects a changed relationship between state and society (Patrick Kenis & Volker Schneider, 1991), in which social problems are resolved through "multi-actor or sector collaboration" (Blockson & Van Buren, 1999, p. 64). Modern states increasingly rely on the cooperation of stakeholders to mobilise fragmented resources in ways that realise favourable outcomes. Network governance coordinates such collective efforts by building stable and interactive relationships between stakeholders. Contrasting

hierarchical relations where power operates through demands, these researchers highlight how multiple local actors interact in ways that enable and coordinate exchanges of information resources and goals (Klijn, 2008; Koppenjan & Klijn, 2004).

Policy sociology of education builds on and extends these political science traditions by emphasising the cultural dimensions of governing through networks. The seminal work of McPherson and Raab (1988) focused on political cultures of education by approaching the workings of government anthropologically. They showed that values and practices of actors, and knowledge-based regulation, through curriculum, qualifications and employment practices, shaped educational decision-making. They also extended the idea of 'policy community' beyond the state to recognise the community of "persons and groups which stretches across the divide between government and outside interests, and which is directly involved in the making and implementation of policy" (McPherson & Raab, 1988, p. 472). Expanding political sociology in this way framed up persistent debates about knowledge as a means of control in education and societies (Young, 1971). It fuelled debates about education as a social institution and its effects in reproducing and transforming societies that drew on cultural politics and theories of discourse to understand macro-level policy processes and the governmental effects of micro-practices of power (Ball, 1990; Marginson, 1997).

By the 1980s, 'network governance' had become an accepted descriptor for policy making arrangements distinguished by horizontal modes of coordination. It was a term that distinguished horizontal coordination (centreless or polycentred society) from hierarchical control (state-centralist or government-focused) (Hanf & Scharpf,

1978). British network analysis suggested that this new governance mode was hollowing-out the state (Rhodes, 1994) and created "a collection of inter-organisational networks made up of governmental and societal actors with no sovereign actor able to steer or regulate" (Rhodes, 1997, p. 57).

3.3.3 Chinese political science research

There is a growing body of work on network governance in China by Chinese academics and political thinkers. Most of these Chinese studies accept policy networks as a new way of understanding public governance. They document changes in governing bodies, tools and structures of governance in the context of market failure and government failure in China (Z. Q. Li, 2008; Nao, 2009; B. Sun & Li, 2008; Chunfu Wang, 2009; D. Yang & Wang, 2008; G. Zhang & Wu, 2008). They describe public policy processes using the Chinese terms *zhengce wangluo* or *wangluo guanzhi*. Both these terms are different from *Mohe* because they are direct translations from English terms "policy network" and "network governance". By contrast, *Mohe* references Chinese understandings of processes that reduce conflicts, increase the chance of cooperation and achieve win-win results that accommodate actors' goals. It refers to the same everyday processes, features and/or goals that are under discussion in Western research on network governance.

Chinese authors have translated the main concepts of network governance in Western literature and then applied them in the Chinese context (X. Zhang & Pan, 2008). However, there are not many empirical case studies exemplifying this form of governance. H. Zheng et al. (2010) argue that "[t]hus far in fact no [Chinese] author has felt prepared to carry out empirical case studies, according to how Western scholars

would characterize them. They restrict themselves to introducing the main concepts and their possible meaning in the Chinese context" (p. 400).

To draw out key dimensions of network governance in China, it is therefore necessary to work through examples. A range of examples exist, such as rural taxation reform (Tang, 2004), politics in the provincial legislatures (Xia, 2008), public health insurance reform (H. Zheng et al., 2010), coal mining policy (Rui, 2005) and the relationship tensions between central government and local governments (Ding, 2009).

Here I draw on three specific examples to draw out key features of network governance in China: the shifting political culture in policy making; an institutional environment for socialist democratic governance; and challenges in resource exchanges.

The shifting political culture of China is indicated by the Chinese government's notion of 'building a harmonious society' that integrates social actors in policymaking processes (S. G. Wang, 2005). The emergence of a middle class due to rapid economic growth is associated with growing civil awareness amongst Chinese citizens. Policy network theory is useful in this context, because it offers a way of understanding governance in China with the development of civil society and stronger interest groups (B. Sun & Li, 2008). More than ten thousand organisations have been setup to act as communication channels between government and citizens (Ren, 2005). Within political institutions, there are branch organisations, such as the National People's Congress, the Chinese People's Political Consultative Conference (CPPCC), the CCP party, the youth federation, women's federation and unions. Outside the political

institutions, there are various academic societies, professional associations and public media. All these organisations have close connections with civil society networks. For example, Chinese public media participate as important bargaining actors in Chinese public policy making, by setting up hotlines or broadcasting programs to gather public feedback. The development and prosperity of non-governmental organisations in China is also significant (Ren, 2007).

These changes put pressure on the institutional environment for socialist democratic politics, because the Chinese government is less likely to implement public policies without engaging non-state actors. These pressures are identified in studies that use 'network governance' to understand developments, such as the political participation of minorities, macro-control policies for real estate and Chinese civil service pay reforms. S. Cheng (2010), for example, discusses the connection between political participation by minorities and the construction of socialist democratic politics. She identifies problems when minorities participate in policy making, including the status of participants, interdependencies around resources, cooperation mechanisms, and the significance of social capital. She indicates that policy network theory suggests ways of improving the institutional environment for political participation by minorities and the need to enhance their ability to participate in these politics. Pan, Jin, and Li (2011) examine macro-control policies on real estate industry and discuss the Chinese government's capabilities in public management that did not perform well in recent years. They identify policy networks as 'a new analysis tool' that 'can master and handle topics that [relate] to multiple roles participating in public policy making" (p.13). They highlight low openness of policy networks and unbalanced power distributions between the state and citizens. There are strong inter-governmental networks, but

there is a lack of political and economic resources amongst real estate buyers. These resource constraints mean there is a low degree of coordination and organisation in the networks.

The challenges associated with resource exchanges are elaborated in a study of Chinese civil service pay reforms. M. Wu (2009) draws upon his intensive interviews and observations in 2008 and 2009 to contribute to the discussion of policy implementation of civil service pay reforms in China. He examines the characteristics and deficiencies of four civil service pay reforms over the last sixty years, noting problems with pay arrears, centralised salary disbursement and incentive mechanisms. He identifies two reasons for policy implementation failure. They are a dependency relationship between the personnel bureau and finance bureau, and the limited autonomy granted to frontline civil servants, that compromised the operation of the network. He concluded that network governance theory indicated the importance of addressing the dependency relationship between bureaus, to strengthen the voices of grassroots bureaucracy in the policy-making process, and in rewarding good performance.

Chinese political science research takes the notion of "building a harmonious society" as a serious policy direction of the trajectory towards network governance in China. This governmental principle was proposed by Chinese former president Hu Jintao in 2007 as his major policy discourse to map out China's future developmental direction. He instructed the country's leading officials and party cadres to put this policy discourse at the top of their agenda (Mok, 2001). He inherited an increasingly divided society: widening regional disparities, a tattered social and welfare system,

huge income gap, massive unemployment, structural poverty, reducing farmlands through unauthorised sale, unbalanced ecological condition and economic growth (Miller, 2007).

The aim behind this shift in the practice of governing China is to coordinate and streamline the relationships between different sectors and ensure that the economy develops in a sustained and efficient way. It seeks to balance the interests of different sectors (People Daily, 2007; Tu, 2004), enabling central government and local governments to share their accumulated experience in governing to solve domestic contradictions, using the new mode of governance based on negotiations. In China, the shift in regulatory mechanisms allows local governments and education practitioners to exercise more power as they implement and negotiate government policies locally (Cai & Zhao, 2009).

3.3.4 Comparing Western and Chinese theories of 'network governance'

The above review of the Western and Chinese political science literature on 'network governance' indicates that there are similar trends in practices of governing in the West and China. The shift towards decentralised governance means there is more scope for non-state actors to participate in policy making, but the scale of change is deeply contextualised in the history and traditions of different regions and states. These differences become evident in the vocabulary that researchers use to describe network governance, the challenges it presents, and what is required to improve its operations.

The Chinese literature reviewed mainly translates the Western concepts of

‘network governance’ and applies these translated ideas to understand empirical examples of governing through networks in China. However, there is a growing literature that questions the use of Western concepts in non-Western research. These critiques are developing in a range of disciplines, such as cultural studies (Chen, 2012; K.-C. Lo, 2013), communication studies (Kusune, 2011; Takahashi, 2007) and international relations (Acharya & Buzan, 2007). In communication studies, (Kusune, 2011) argues that “hegemonic theories of world views of Western countries are increasingly criticized and discredited” (p. 56).

In response to the predominance of social theories rooted in the West, there is a growing movement towards understanding theories through diverse contextual and cultural perspectives of the East (P. W. K. Chan & Pardy, 2012). Chen (2010) elaborates this critique by arguing that ‘Asia as method’ uses ‘the idea of Asia as an imaginary anchoring point’, in research that can ‘provide alternative horizons and perspectives’ (p. 212). He recommends that scholars from former colonies and ex-imperial countries in Asia re-examine and re-think their own colonial and imperialist histories in order to contribute to Asian studies in Asia. Chen’s suggestion inspires me as an Asian scholar to produce the analytic resources and tools, that move some way toward knowledge that is premised upon critical decolonisation and de-imperialisation perspectives, as they relate to education in Asia.

From this perspective, it is inappropriate to just use Western concepts as the ‘international standard’ for analysing network governance in China. Instead, it is necessary to translate Western concepts so that they are more sensitive to Chinese culture. Chen (2010) says that translation “gives us a way to conduct reinvestigations

that allow the organic shape and characteristics of local society and modernity to surface" (p.244). This work sees 'Asia as method' as a collaborative, rather than anti-West, research lens, that provides a methodology for planning, conducting and evaluating research about the 'home country' while being away (P. W. K. Chan, Zhang, & Kenway, In press). It refers to a dialogical process of integrating the influence of Asia cultures and contexts to widen the knowledge base by complementing existing Western theories. It means that Asian localities and western theories become a reference point for each other. I will elaborate in more detail in Chapter 4.

In the next section, I begin by drawing out the Western definition of 'network governance' that provided a point of departure in this research. I then compare commentaries on network governance by British political scientist Rhodes (1990), Ball (2008), an education policy sociologist, and Zheng, Jong and Koppenjan (2010), whose research entails collaboration between the German-Dutch school of network governance and Chinese scholars. Finally, I draw these themes together in a conceptual framework for this doctoral research.

3.4 Defining 'network governance'

3.4.1 A Western definition

Rhodes (1997) provides a succinct definition that is used as a point of departure in defining the concept of 'network governance' in this project. He defines 'governance' as "self-organising, inter-organisational networks characterised by interdependence, resource exchange, rules of the game and significant autonomy from the state" (p. 15).

Unpacking this dense description reveals five key aspects of governance through networks:

- **Self-organising, inter-organisational networks**: networks are relatively self-regulating by network members themselves, since they are not part of a hierarchical chain of command and do not submit themselves to the laws of the market. These networks could link up different agencies and be inter-governmental or inter-organisational, and could operate within and between different scales, becoming national, transnational or sub-national.

- **Interdependence:** networks identify the connections and practical engagements between a number of private, semi-public or public actors who are dependent on each other, and on other actors' resources and capacities.

- **Resource exchange:** In order to achieve their goals both within the same network or policy arena, and as a total network, actors have to interact through negotiations and bargain over the key issues, how they are defined and addressed, the distribution of resources, and the processes of governance and self-governing that maximise outcomes. Partnerships and networks entail frequent, high-quality, interaction between all actors and are related to all matters around the policy issue.

- **Rules of the game:** Processes of government and governance create rules and develop conventions, to guide or regulate the process of resource exchange between actors in the network (Rhodes, 2007). Trust, reciprocity,

informality and cooperation are important features of networks and their effective operations. They locate a balance of power among actors, that may also include ways of compensating losers in the network. Although one group may dominate, there must be a positive-sum game if the community is to persist. These processes of interaction and dialogue mean that all actors work together to develop shared understanding of each other's basic values and to accept the legitimacy of the network, its proposals and the proposed outcome.

- **Significant autonomy from the state:** network governance does not privilege state actors and institutions as the only relevant institutions and actors in the authoritative allocation of value. Governance as self-organising networks is a challenge to governability because the networks become autonomous and resist central guidance (Rhodes, 1997).

This definition of 'network governance' identifies 'networks' in terms of more or less stable interactions between mutually dependent actors involved in policy making. It focuses on processes of governing in which actors depend on each other for resources and, therefore, enter exchange relationships to secure relevant resources, in ways that build collective capabilities.

As a theoretical framework, this idea of 'governance' recognises interdependencies. It helps to explain why actors deploy resources in ways that support other actors, and how the mobilisation of their resources in the network, including their interpersonal and cultural resources, help to achieve their goals. These

insights are elaborated in the German-Dutch school of network governance that discusses processes of managing complex networks (Kickert et al., 1997).

Educational governance

The 'governance turn' in education policy sociology (Ozga, 2009, p. 158) sees the state as a network of relations, that organises practices of governing through schooling, its networks of actors and discursive strategies. In this way, education is a means of governing socio-economic development by forming, regulating and disciplining the identities of workers and citizens (Popkewitz, 1996). However, education is also a location for network governance, where state and non-state actors negotiate resource transactions that have effects in steering education as a governing instrument. This heterarchical governance represents "a new modality of state power, agency and social action and indeed a new form of state" (Ball, 2008, p. 748).

With the transition towards market coordination and a 'post-bureaucratic' state, governments seek new forms of intervention and action in societies. Network governance demands the continuous generation of new skills and knowledge to legitimate state actions (Rhodes, 2007). Coordination no longer relies just on conformity to rules and standardisation of bureaucratic procedures or professional qualifications. Instead, it operates through new regulatory devices that operationalise state regulated 'quasi-markets' and evaluative states, in ways that affect individual's attitudes and behaviours:

> … in the quasi-market models, it is above all competitive pressure through the intervention of an 'informed' user parent that encourages the

> school to improve its educational services. In the evaluative state model, regulation occurs more through evaluation of processes and results and through incentives or sanctions meted out to schools according to their 'progress' and results (Maroy, 2012, p. 69).

Knowledge/information is central to these emerging regulatory devices. Market mechanisms depend on users making choices based on good information. This consumer demand for information is supplied through evaluation-based knowledge, that is produced through evaluation technologies that use 'objective measures' associated with regulatory instruments, such as funding formulae, key performance indicators, and performance assessment processes, like the Programme for International Student Assessment. These knowledge-information flows are governed through networks, because they are selectively screened by particular knowledge workers (eg. professionals, experts, think tanks, professional organisations, and educational researchers) and ordered as valued inputs to evidence-based policy action (Pons & van Zanten, 2007). These 'knowledge-based regulatory tools' (Ozga & Grek, 2012, p. 35) organise and also legitimise policy decisions. This means that evaluative knowledge-for-policy feeds into market mechanisms that, in turn, govern knowledge about, and practice of, education.

By understanding the followed key dimensions of network governance theories, which have been developed in Western literature, I can utilise and localise them into a Chinese context.

- Network governance provides an innovative way for states to guide their societies, largely in response to the inadequacy of the hierarchical

governance model, especially in the weak participation of non-state actors.

- Network governance examines the power relationship between participating actors, such as the changing power of the state. Governments remain ultimately responsible for governance, but that is not the whole story.

- Network governance values both state and non-state actors within a policy community to work collectively to solve social problems and achieve mutual goals. It reflects a shift towards shared tasks and responsibilities and towards doing things together, instead of doing them alone. Few policy solutions are simply imposed by public authorities.

- Mutually dependent actors engage in policy making by exchanging their resources under the guidance or regulation by game rules. These resources include knowledge/information and social capital.

3.4.2 Localizing the concept to China

Comparing commentaries on 'network governance' provides a way of refining the Western definition in ways that are sensitive to Chinese culture and traditions. It is a strategy that begins to theorise *Mohe,* as a notion of network governance that takes Chinese meanings seriously. This methodology reveals thematic differences related to: the power / the 'hollowing-out' of the state; membership in a policy community; the

power relationship between the state and social actors; and resources exchanged between actors.

The three commentaries selected are by Rhodes, Ball, and Zheng, Jong and Koppenjan. Rhodes is the most prominent and influential figure to apply network governance theory in the field of political science. He pioneered the analysis of 'network governance' as a new process or method by which society is governed. His paper 'Policy Networks: A British Perspective' (Rhodes, 1990) summarises how public policy reforms are changing boundaries between public, private and voluntary sectors. Ball is one of the most prominent education policy sociologists and has a strong record of theoretical innovations in studies of educational policy and governance. His paper 'New Philanthropy, New Networks and New Governance in Education' (Ball, 2008) analyses new communities that have formed in and around education policy, and their effects in bringing about changes in policy and governance. This commentary reveals issues and problems of grounded analysis of network governance in education. Zheng, Jong and Koppenjan (2010) report on network governance in China by analysing urban health insurance reform. They add values and limitations in the application of network theory in the Chinese context. Their paper 'Apply Policy Network Theory to Policy-Making in China: The Case of Urban Health Insurance Reform' documents policy processes in China, where the political and administrative system and cultural values are different to those of the West.

3.4.2.1 Power of the state / 'Hollowing-out' of the state

The concept of 'hollowing-out' is controversial when applied to the state. This debate is evident between policy science and education, and also between Western

countries and China. Rhodes (1996) developed this idea to cover four interrelated trends in Britain in the 1980s. They are:

- Privatisation and limiting the scope and forms of public intervention;
- The loss of functions by central and local government departments to alternative service delivery systems (such as private or community agencies);
- The loss of functions by the British government to European Union Institutions;
- Limiting the discretion of public servants through new public management, with its emphasis on managerial accountability, and clearer political control through a sharper distinction between politics and administration (Rhodes, 1996).

Rhodes argues that the size of British government was reduced by privatisation and cuts in the civil services. He terms this form of governance the 'minimal state'. It narrows the context and form of public intervention and uses markets and quasi-markets to deliver public services. Rhodes (1996) adds that "[n]etworks are not accountable to the state; they are self-organising. Although the state does not occupy a privileged, sovereign position, it can indirectly and imperfectly steer networks" (p. 660).

Ball disagrees with this "hollowing-out" thesis when considering the state in

British education. He believes that the state still has a capacity to steer policy, but it is realised through agency and social action. It is a new form or means by which states achieve their political ends. He stresses that network governance does not involve "…a giving up by the state of its capacity to steer policy; this is not a 'hollowing out' of the state, rather it is a new modality of state power, agency and social action and indeed a new form of state" (p.748). He argues that the 'core executive' in the British parliament retains substantial authoritative presence over policy and in some respects, certainly in education, has an enhanced capacity, monopolising and deploying a unique set of powers and resources. For example, the government makes careful and strategic use of financial controls and allocation of resources to achieve educational goals.

H. Zheng et al. (2010) argue that it is impossible to deny the power of China's central government. The role of the Chinese Communist Party (CCP) still dominates policymaking processes. It makes the phenomenon of a 'hollowing-out' state questionable in China. In reality, Chinese participants in policy making processes do not underestimate the powers of the state, but, they argue, it is also important that they do not overestimate those state powers in an abstract sense, or treat the state as an undifferentiated whole. The challenge is to contextualise network governance in order to clarify its forms, practices and effects in particular areas of state activity and document the reconfiguration of state power. Empirical research shows that there is an erosion of centralised sovereign power in some parts of the state, at the same time as there are decentralised gains in other parts.

The implication is that research on network governance in China should be carefully contextualised in order to reveal how power and its exercise shifts, through

specific and detailed case studies.

3.4.2.2 Membership in a policy community

A single individual actor serves as a basic component of a policy community. Each actor has the capacity to help determine policy success or failure based on his or her interest or stake in a given policy sector. Rhodes (1990) defines policy communities as “networks characterized by stability of relationships, continuity of a highly restrictive membership, vertical interdependence based on shared service delivery responsibilities, and insulation from other networks and invariably to the general public” (p.304). For Rhodes, membership of a policy community is relatively stable and restricted. It consists of a range of state and non-state actors involved in shaping and delivery policy. By involving non-state actors, it makes little sense to talk generally of a strong state. Relationships between groups and government vary between policy areas (Rhodes, 1997).

Ball identifies the membership of educational policy communities, including the state, government departments, non-governmental agencies, business and philanthropy. Unlike Rhodes, Ball argues that this membership is fluid. Also, members of policy communities can occupy multiple positions or roles (within agencies, public service and philanthropy) at different times or sometimes simultaneously. These members may be representatives of business, advisers to the state or philanthropists. Network actors are not autonomous, but interdependent. They are constrained and enabled by actors’ differential capabilities.

H. Zheng et al. (2010) report that actors involved in the reform of health

service provision and insurance management in China are state actors only, such as the State Council, Ministry of Labour and Social Security, Ministry of Health, Ministry of Finance, and the National Development and Reform Commission. Non-state actors were not included, for example, insurance companies, hospitals, doctors and patients. The key members in a Chinese policy community are the state as actor and government departments at the central level, but not local governments and their agencies, or even non-state actors.

The implication is that network governance in China is skewed towards state and bureau actors. The extent of membership by non-state actors in a Chinese policy community is limited, and unbalanced in terms of degree of participation comparing with that of state actors. However, networks exist within and between state agencies, and also reach into non-state networks.

3.4.2.3 Power relationship between state and social actors

Rhodes proposes a resource dependence model by highlighting the network form of governance as trust, reciprocity and mutual interdependence. Networked actors in a policy community move away from competition and relate to each other on the basis of interdependencies, but not necessarily on the basis of equity. Rhodes argues that networks have different structures of dependencies, structures which vary along such dimensions as membership (for example, of professions, of the private sector), interdependence (for example, between levels of government) and resources. Actors process their negotiation and bargaining within the policy community to exchange their resources and build collective capabilities based on the rules of the game. These rules are very fluid, but trust is one basic rule.

Ball argues that power among actors is crucial and it can shape policy outcomes. This power is evident in the way individual network actors shape and steer networks, and in the discursive power of policy makers to affect the conduct of policy implementers (Goodwin, 2009). However, Ball (2009b) argues that it is hard to analyse "structured relationships of power" (p. 668) within policy networks, because network actors operate on an uneven playing field that favours certain actors and certain outcomes over others. These asymmetric power relations are characteristic of educational governance networks. While political scientists like Rhodes argue that the restructuring of state-civil society or government-public policy relationships have weakened the role of the government [the central state in particular], this interpretation is questioned by scholars in education. The education policy sociology field repeatedly finds the state's control of education has actually strengthened rather than weakened, but functions in different ways.

H. Zheng et al. (2010) stress that "the public elites in China are expected to have superior wisdom and knowledge and to play a more important role in making decisions, keeping the role of private organization and the public limited" (p. 414). Therefore, a pluralist style of involving non-governmental organisations, interest groups and general citizens is contentious. The Chinese public voice is relatively weak. In addition, Chinese social actors may not consider themselves as having the right or power to negotiate with state actors (Peng, 2004). Although government in China is moving towards 'more open' engagement of citizens in public debate, it is quite improbable that Western style democracy could be installed any time soon.

The implication is that research on network governance in China should

recognise that the power between state actors and non-state actors in a Chinese policy community is unbalanced and incomparable. The power of non-state actors is less significant than that of state actors.

3.4.2.4 Resource exchanged between actors

The distribution of resources is of vital importance to the relative power of the participants and the underlying structure of dependencies (whether symmetric or asymmetric). Rhodes explains that networks are made up of organisations that need to exchange resources to achieve their objectives, to maximise their influence over outcomes and to avoid becoming dependent on other players in the game. Actors control different amounts or types of resources – such as authority, legitimacy, money and information. Available resources also need to be effectively deployed and put to maximum use. The extent to which organisations achieve their objectives is dependent on the strategies they adopt- either bureaucratic, incorporative, bargaining, confrontational, or avoidance- as well as the rules of the game under which they operate and which regulate the behaviour of the participants. Also significant are actors' perceptions and the degree to which these are mutually shared. The resource exchanges of a policy community produce a positive-sum game; that is, everyone wins.

Ball argues that network relations are opaque, consisting of informal social exchanges, negotiations and compromises. Actors in networks will have shared or additional goals that combine public and private motives together. Ball agrees that "resources are exchanged, interests are served and rewards achieved" (p.753). Knowledge, ideas, information and collaborative skills are the invisible resources that can be exchanged within the policy community. Frankham (2006)

mentions that everyone in a policy community can gain from the exchange of ideas.

The key actors networked in health service provision and insurance management in China are mainly the state and government departments. H. Zheng et al. (2010) argue that negotiation and resource exchanges between these actors do occur. They give an overview of the main actors involved in their case, documenting their primary goals and perceptions of the issues at hand. Different actors have their own interests and try to make use of strategies both to achieve their goals and avoid risks.

These actors find compromises to take reform further. For example, the Ministry of Finance is reluctant to give up previous success in cutting back on public expenditure and give in to public pressure. It needs the other two ministries [the Ministry of Health and the Ministry of Labour and Social Security] to provide a reasonable and achievable programme to solve current medical problems. The Ministry of Health is diverting public dissatisfaction to the Ministry of Finance by claiming that public health investment in medical service keeps decreasing" (H. Zheng et al., 2010, p. 410). Their analysis shows that cultural features of the Chinese system are an integral part of the analysis. For examples, actors do engage in competitive activity, even if this is played out less openly, rather than being discussed in public. Since Chinese society has been characterised by a hierarchical system, the central government's notion of "building a harmonious society" is a major operational guideline. It is also matched with the idea of *Mohe* – "[f]riction exists, but it does not grind an entity (either a group, a system, or machinery) apart. Rather it helps each part to smooth its jarring quality and form an everlasting coexistence. This is because in this situation all actors lose part

of their original qualities which caused disharmony" (Xia, 2000, p. 194).

The implication is that research on network governance in China should consider visible and invisible social resources, such as knowledge, relationships, and understandings that could be exchanged in the process of coming to agreements. However, because the governing system is historically hierarchical, there is limited evidence of power being exchanged or overt power sharing between state actors and non-state actors.

3.4.3 Network governance in the Chinese context

Western literature identifies 'network governance' as a new mode of governance that solves social problems through engaging various actors in specific policy arenas. These actors can be state and non-state actors (interested groups, business sector or individual). Each of these actors is significant because they increase participation and access to resources in decision-making. They are regarded as a policy community in a specific policy arena and are involved in making and implementing policy.

Processes of governing operate differently in China, but there is evidence that networks and, to a lesser extent, non-state actors are involved in governance. In Chinese, these processes are associated with *Mohe*, a way of working through relationships that rest on strategies, resource exchanges and compromises that return mutual benefits. China's different political institutions mean it is impossible to discount the power of Chinese central government in policy making processes. The state still dominates and is not 'hollowed out'. Yet it is still appropriate to investigate the

networks and their effects in governance that are acknowledged as *Mohe* in China.

The Western concept and debates about 'network governance' highlight specific defining features. These can be used to frame an investigation of educational governance in China and its processes of *Mohe.* This framework localises the concept of network governance to China and documents how network governance is implicated in public school reform. It focuses data collection and analysis on:

- The relationship between the role of state actors and civil society actors in China;
- The membership of the policy community that is involved in network governance related to public education, and how they align with Chinese levels of government;
- The activity and effects of different participants in educational network governance in China;
- The resources that are transacted in network governance, and how they are valued and contribute to compromises that produce agreements. These resources include authority, information, money, property, personal identity and qualification; and
- The consequences of network negotiations between actors; who participates, who benefits and with what educational effects.

3.5 Summary

Concern with government or regulatory 'failure' has encouraged the 'search for new tools' in public institutions (Rhodes, 1996, p. 666) . This chapter identifies network governance as a practice of governing that decentralises government and increases participation and the range of resources in policy making. It identifies key features associated with Western understandings of 'network governance' and uses these to ask questions about the emergence of network governance in China and its characteristics, that have been captured in the Chinese term *Mohe.* In the next chapter, I introduce the idea of 'Asia as method', that justifies my methodology and I describe how I use the key features identified in Western concepts of 'network governance' to investigate network governance and public school reform in China.

CHAPTER FOUR

Methodology

4.1 Introduction

As a researcher with a background in economics and political science, I was trained in a positivist tradition. When I travelled into an education discipline and more interpretivist traditions to pursue this doctoral study, I noticed different ways of doing research. I also travelled from Hong Kong, China to Australia as a host country to focus my research on educational reform issues in my home country, utilising Western concepts and theories to interpret these issues. My discomfort was that my research about Chinese education would almost invariably see through 'Western eyes'. Yet with certainty, I am inspired to draw on Western perspectives to study my own country's educational practices and systems.

This chapter focuses on my decisions and rationales that have framed the moves I have made in this research. It acknowledges my position in conducting this research. It explains the difference between positivism and interpretivism and debates around quantitative and qualitative research, and my decision to use mixed methods. I outline the history and process of this method, and explain how I have operated this strategy in my research. This chapter presents this research project as a case study based on education statistical data, documentary analysis and interviews. It describes the research sites and sample selection, approach taken to data analysis and ethical issues.

To this end, section 4.2 records the narrative about my academic trajectory. Sections 4.3 and 4.4 review approaches to research in this study, including methodology and methods. The epistemological arguments associated with 'Asia as method' are introduced and discussed. Section 4.5 introduces the research locations: Harbin and Shenzhen. Section 4.6 outlines the participants, their recruitment and profiles. Section 4.7 elaborates the methodological issues encountered during this research. Section 4.8 identifies ethical considerations addressed in the conduct of this study. Section 4.9 summarises the key points of the argument, offering some recommendations and concluding remarks.

4.2 My narrative

My choice to investigate this topic was influenced by my personal and academic background. In my first eleven years, I was educated under the Chinese education system and learnt simplified Chinese characters and *Putonghua* (Mandarin), the official language of the People's Republic of China. This training enabled me to read and write Chinese words and communicate with people in China, know about Chinese traditions, customs and cultures. These are important resources when doing research on Chinese education.

My second eleven years was in Hong Kong, a colony of the British between 1842 and 1997. Under the Hong Kong education system, I learnt English and traditional Chinese characters, which are commonly used in Hong Kong, Macau and Taiwan. Learning English built my capability of reading English literature and communicating with people in English-speaking countries. I always remember my father's words to me

20 years ago - “master well both Chinese and English; you can communicate with half the population of the whole world”. That may not be true anymore! There are now around 1.4 billion Chinese (Putonghua and Cantonese) speakers (Nationsonline, 2013) and 1.5 billion English speakers (Graddol, 2000), while there is a worldwide population of 7.1 billion (United States Census Bureau, 2013).

In the first half of my third eleven years period, I received training in economics and business statistics in undergraduate studies in Australia. In my research masters degree of economics in the Department of Political Economy, the University of Sydney, my research topic was *Strategies for the Reform of State-Owned Enterprises in China, 1978 – 1999.*The dissertation outlined the process that corporatized the large State-owned Enterprises (SOEs) through the Modern Enterprise System, and various processes of liberalisation employed in the reform of smaller SOEs. The Economics literature (Perkins, 1994; Rawski, 1999; Smyth, 1998) critiqued SOEs on the grounds that they were inefficient, because they spent huge financial resources on a “cradle to grave” social service (including schools) for their employees and children. During that period, I questioned why there were no strong SOE school data (such as actual numbers of SOE schools and actual expenditure on schools) to support the arguments made in the economics literature. This thesis takes up these questions. It builds on my previous research, but extends that work to focus on schools attached to SOEs.

In the second half of my third eleven years, I was employed in two Hong Kong universities and by the Hong Kong Federation of Education Workers. I started my career in teaching and training Hong Kong teachers, teachers and education officials from China. During this period, I discovered that SOE schools have their own nature,

characteristics and funding, that differs from that in government schools. When these SOE schools were required to transfer from SOEs to the Ministry of Education, I decided it was an interesting topic that I could explore more in my future study.

In the beginning of my fourth eleven years period, I commenced my PhD studies at Monash University to explore the schools attached to SOEs. I focused the study using the concept of 'network governance' drawn from the field of political science to examine this issue. Fortunately, a weeklong PhD program at a university in the Netherlands introduced me to the development trajectory of network governance theory, current literatures and key people in the field. This study builds on the work of Rod Rhodes (1997), who conceptualised 'network governance', in terms of interactions between groups that make up networks involved in policy making. At Monash University, I am leading the 'Asia as method in education studies' project to think about the contradictions in research that uses Western concepts to understand Chinese / Asian education. This epistemological project creates a platform for dialogue between Asia and the world, and also draws attention to existing concepts and values in Asian knowledge. I will discuss this concept in more detail in the 'Asia as method' section.

4.3 Methodology

Research is not 'neutral', but reflects a range of the researcher's personal interests, values, abilities, assumptions, aims and ambitions. In this section, I explain my understanding of the positivist and interpretive approaches which underpin a mixed method approach as a theoretical lens in this research design.

Methodology consists of "overarching, macro-level frameworks that offer

principles of reasoning associated with particular paradigmatic assumptions that legitimate various schools of research; [they] provide both strategies and grounding for the conduct of a study“ (O'Leary, 2010, p. 88). ‘Paradigmatic assumptions’ refers to a “philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria” (Crotty, 1998, p. 10). These help me as researcher to avoid self-deception. Methods are the actual micro-level techniques or procedures used to collect and analyse data which relate to the research question or hypothesis (O'Leary, 2010).

Positivist approaches to research are based on research methodologies commonly used in science and business statistics which can also refer to ‘quantitative’, ‘objectivist’, ‘scientific’ research. Positivism was established by 17th century French philosopher Auguste Comte in Western philosophy (Comte & Gertrude, 1998). According to a positivist ontology (the nature of reality), or truth is a single, external, objective reality to any research question that exists independent of human perception (Hudson & Ozanne, 1988). The quantitative research paradigm is based on positivism and post-positivism. Science is characterised by empirical research, which leads us to regard the world to be made up of observable, measurable facts (Glesne & Peshkin, 1992). All phenomena can be reduced to empirical indicators which represent the truth. Positivism uses the deductive or confirmatory or “top-down” scientific method; it is used primarily for description, explanation, and prediction. Epistemologically, the investigator and investigated are independent entities (Sale, Lohfeld, & Brazil, 2002). Therefore, the investigator is capable of studying a phenomenon without influencing it or being influenced by it. It is based on quantitative data, in particular on the analysis of variables. The goal is to measure and analyse

causal relationship between variables within a value-free framework (Denzin & Lincoln, 1994). The results are statistical and the goal is to generalise the results.

Interpretative approaches, on the other hand, frame research from the perspective that human behaviour is not as easily measured as phenomena in the natural sciences. These approaches are commonly used in arts, humanities and social sciences and are positioned as 'qualitative', 'subjectivist' or 'humanistic' research. The qualitative paradigm is based on interpretivism (Glesne & Peshkin, 1992; Sale et al., 2002), constructivism (Denzin & Lincoln, 1994) or idealism (Sale et al., 2002). It operates from a premise that reality is based on people's experience (socially constructed) rather than some external reality; therefore reality must be created through interaction (Bryman, 2008). It uses a "bottom-up", inductive, exploratory and theory generation method. Ontologically speaking, there are multiple realities based on one's construction of reality. Reality is social constructed and so is constantly changing (Bryman, 2008; Glesne & Peshkin, 1992). On an epistemological level, there is no access to reality independent of our minds, no external referent by which to compare claims of truth. It is used primarily for the purposes of description and exploration and to gain an understanding of how people think and experience their lives. It is based on qualitative data, which during analysis are examined for patterns, themes, and holistic features, which focus is on the local, the personal and the subjective.

Pragmatic approaches in research are committing to any one philosophy since they are not asking about reality and the laws of nature. These approaches are not limited to apply to specific academic disciplines. Mixed methods research is the third

major and newest research methodology paradigm (Greene, Caracelli, & Graham, 1989). It is based on pragmatism (Creswell & Plano Clark, 2011). The formative period of mixed methods began in the 1950s and continued up until the 1980s (Tashakkori & Teddlie, 1998). It found momentum in the 1950s when Campbell and Fiske (1959) advocated for the collection of multiple forms of quantitative data to study the validation of psychological traits. Others combined both quantitative and qualitative data in this period (Jick, 1979; Sieber, 1973). Philosophically, mixed research takes an eclectic, pragmatic, and common-sense approach, suggesting that the researcher mix quantitative and qualitative in a way that works best for the given research question being studied in a particular context. Mixed methods research uses both deductive and inductive methods, obtains both quantitative and qualitative data, attempts to corroborate and complement findings, and takes a balanced approach to research. It is a problem-centred, real-work and practice-oriented paradigm.

Nowadays, mixed method researchers believe that a broad interpretation and use of the word methods (as in mixed methods) allows inclusion of issues and strategies surrounding methods of data collection (e.g. questionnaires, interviews, observations), methods of research (e.g., experiments, ethnography), and related philosophical issues (e.g., ontology, epistemology, axiology) (R. B. Johnson, Onwuegbuzie, & Turner, 2007).

In this research, I have used a mixed method design, which combines quantitative and qualitative data. It is a concurrent procedure to converge qualitative and qualitative data to provide a comprehensive analysis of my research problem. The concurrent triangulation design for this project implies that quantitative and qualitative

methods are used separately, independently and concurrently. Results are compared to assess their convergence (O'Toole & Beckett, 2010). I have formally triangulated the data by looking at the issue from three angles. The first is statistical data from yearbooks, which provide the facts of SOE schools between 1994 and 2008. Secondly, government document analysis provides an overview of policy trends in China and thirdly, individual interviews which were restricted to the policy arena. Research data in this project shows that participating actors reported the trajectories of the amount of teacher salary between local government school and railway schools differ. However the general trend is the same: before 1995, the teacher salary in a railway school was higher than that in local state schools; after 1995, the teacher salary in local schools was higher than that in the railway schools. This was confirmed by many interviewees. But the amount of these differences is based on the situation of each district, each city and each province.

A case study of railway SOE education as a particular facet of public education in China was developed. According to Merriam (1988, p. 16) a "case study can be defined as an intensive, holistic description and analysis of a single entity, phenomenon, or social unit. Case studies are particularistic, descriptive and heuristic and rely heavily on inductive reasoning in handling multiple data sources". A case study is a more holistic view on a particular event in context and provides a way to take important personal, social, and cultural phenomena into account (D. M. Johnson, 1993).

4.3.1 Asia as method

Chen (2010), a Taiwanese cultural theorist and author of *Asia as method,* argues for a *new research imagination* that moves beyond constant referencing of the West

towards alternative perspectives with Asian history, politics and culture as key reference points. He offers instead a range of standpoints and concepts to assist scholars to move beyond such impasses.

> The potential of Asia as method is this: using the idea of Asia as an imaginary anchoring point, societies in Asia can become each other's points of reference, so that the understanding of the self may be transformed, and subjectivity rebuilt. On this basis, the diverse historical experiences and rich social practices of Asia may be mobilised to provide alternative horizons and perspectives. This method of engagement, I believe, has the potential to advance a different understanding of world history.
>
> (Chen, 2010, p. 212)

In order to assist a rethinking and reinvestigation of traditional cultures in the dialectical dialogue with the West, Chen (2010) provides the notion of 'translation'. He says, "[t]ranslation thus gives us a way to conduct reinvestigations that allow the organic shape and characteristics of local society and modernity to surface"(Chen, 2010, p. 244). How does translation play its role in the dialectical dialogue between exotic cultures and local tradition? Chen indicates that,

> The object to be translated has to be subjected to existing social forces and must negotiate with dense local histories if it is to take root in foreign soil. What comes out of this long process of negotiation is not what was imagined at the initial moment of translation at all, but a localized product of this blending process.
>
> (Chen, 2010, p. 244)

The object of translation has to be subjected to both the 'local' and the 'foreign'. The process of translation usually involves the dialogue and negotiation between exotic

cultures and local traditions/wisdom. How does translation happen? Chen (2010) posits that the translation is a process full of both 'negotiations' and 'blending' between the 'local' and the 'foreign', rather than a simple act of one toppling the other. This is a two-way simultaneous process. First, an exotic culture has to adapt to local historical contexts. Second, the traditional culture has to be reinvestigated and reread dialectically. Then, the equal dialogue between these two objects is conducted by the changeable base-entities.

Based on my understandings of Chen's idea of Asia as method, the process of translation is respectively interpreted in Chinese contexts. In the context of China, the Western paradigm is one of the exotic cultures adapted to the Chinese cultural context, and dialogue is engaged with the reinvestigated Chinese theories. This perspective of translation is examined to discuss how the negotiation happened between the Western term of 'network governance' and the Chinese term *Mohe* in Chinese education policy making.

'Asia as method' has strong explanatory power in socio-cultural research. However, in educational research few people have focused on this area. On the one hand, this is a kind of challenge for us to enter a new academic territory in educational research. On the other hand, because there are no rules to follow, it is also an opportunity for us to explore freely from different directions in order to show the inclusivity and adaptivity of Asia as method in various fields in different contexts.

4.4 Methods of data collection

In this specific study, I selected a mixed methods design, which includes the analysis and calculation of statistical data from government statistical yearbooks, a documentary analysis approach and interviews to answer my research questions.

Governments around the world are implementing network governance as a means to better coordinate public services, such as education. This project investigates public education reform in China where previously integrated SOEs and their schools are being separated to form the Modern Enterprise System. The study focuses specifically on Railway Enterprise-run Schools in China to see how governance arrangements work. It investigates the interaction processes between stakeholders who are negotiating this separation of SOEs and schools, and their consequences for coordination of education.

After acknowledgement that educational governance has shifted from government to governance through networks in Western countries, the research questions informing this project are:

As set out in Chapter One, the overarching question informing the project is:

How has governance been applied in Railway State-owned Enterprise schools since 1993, when they were transferred from the Ministry of Railways to the Ministry of Education under the Modern Enterprise System?

The four specific questions that guide the project are:

1. What is 'public education' and how is it being reformed in China?
2. What was the contribution of State-owned Enterprises to education in China before transfer to the MOE? (Chapter 5)
3. What are the modes of governance that have taken place in public education systems in China? (Chapter 6)
4. How has policy been implemented in SOE schools through the transaction of differentially valued resources? How have resources been exchanged between policy actors to achieve win-win results? (Chapter 7)

4.4.1 Statistical data

I analyse a collection of quantitative data from *the Almanac of China Economy* (1985-2008), *the Chinese Educational Finance Statistical Yearbook* (1994-2008) and *the Chinese Statistical Yearbooks* (1994-2008), all published by China Statistics Press. These statistical data are based on a large number of various state-owned enterprise schools, from childcare centres to higher education institutes throughout China, their distribution according to province and funding, as well as the current structure of the Chinese education system. These data provide information on the landscape of provision of education by SOEs and by public schools, which are the main providers in Chinese education. Analysis of this data is outlined in Chapters Five and Six.

4.4.2 Document analysis

I analyse a series of government documents to gain insights into the public education reform process in the recent past. Documentary research methods or the use of documentary sources in social research are described as techniques used to

categorise, investigate, interpret and identify the limitations of physical sources, most commonly written documents, whether in the private or public domain (Payne & Payne, 2004). This method is derived from historical methods, which are essentially concerned with the problems of selection and evaluation of evidence(Bell, 2005). It is a supplement to conventional social surveys, in-depth interviews or participant observation, but it is seldom the main or principal research method (Mogalakwe, 2006). 'Document' is a general term for an impression left on a physical object by a human being. It covers a fairly heterogeneous set of sources of data, such as photographs, films, slides and other non-written sources, but the most common kinds of documents in education research are written as printed or manuscript sources (Bell, 2005). These printed documents can be divided into primary and secondary sources. Primary source documents are original materials that were written or created during the historical period under study. For example, the records of legislative bodies, government document departments, and LEAs, evidence from a national database, including statistical data of teachers' performance and salaries, newsletters and journals. Secondary sources are interpretations of events of that period based on primary sources (e.g. textbooks, magazine articles, criticisms, commentaries and encyclopaedias).

In this project, I use this document analysis method to check the reliability of evidence gathered from the interviews. It also helped to shape my research direction. Using a 'problem-oriented' approach (Bell, 2005), I formulated my interview questions to different group of research participants. As my research progressed, a clearer idea of which sources were more relevant emerged and more questions occurred to me as I deepened my knowledge of the subject.

The document search in this project covers both national and local sources of evidence in government policies (refer to Table 4.1 for the list of government documents). For top-down governance in China, documents and reports pass from the upper-level of government to the lower-level of government through communication channels or media. These files and records are a valuable alternative source of data (D. M. Johnson, 1984). When I use these documentary sources I have to be aware of their origins, purpose and the original audience of the documents. Government policy documents and relevant documents were collected at the interview locations and from government websites. Newspapers were collected from the University Service Centre of the Chinese University of Hong Kong and the websites of newspapers.

In the model for analysis, I followed the model of Scott (1990) to formulate quality control criteria for handling documentary sources. I applied this method, recording answers to the following questions: What is this document? When was it created? Which government bureau or department wrote the document? Give the background of the bureau or department if known.

Who do I think was the intended audience?

What is the purpose of this document?

What words are not familiar to me? What do they mean?

Is any part of the document unclear? Why?

What is the most important information in this document?

Why is this document important?

Describe how I was able to analyse this document (Scott, 1990).

Table 4.1 List of government documents used in this study

Date	Document name and number	Authorities	Context
2/5/ 1995	<< Opinions on Separating Surplus Labours of Social Function from SOEs in Certain Cities>> SETC [1995] No.184	State Economic and Trade Commission, State Education Commission, the Ministry of Labour Ministry of Health and Ministry of Finance	Optimizing capital structure of 100 piloted SOEs at municipal level approved by the State Council under Modern Enterprise System (MES).
22/9/ 1999	The Decision of the Central Committee of The Communist Party of China on Major Issues Concerning The Reform and Development of State-owned Enterprises CC [1999] No.16	The Central Committee of The Communist Party of China	Separating social functions from SOEs and reducing the social burden of SOEs effectively. City SOE primary and secondary schools should progressively transfer to local governments .
29/5/ 2001	<<Decision on the Reform and Development of Basic Education>> SC [2001] No.34	The State Council	The Wishes of SOEs on the separating schools to the local governments should be respected; the SOEs should continue to manage their schools well before detaching to local education bureaus.
6/4/ 2002	<<Opinions on Further Promotion on Separating Social Function from SOEs >> SETC [2002] No.267	State Economic and Trade Commission, State Education Commission, the Ministry of Labour Ministry of Health and Ministry of Finance	Proposing that large or medium size SOEs should separate their primary and secondary schools in the next few years.
20/1/ 2004	<<Notification of the Proper Settlement of Remuneration for the Retired Teachers in SOE Primary and Secondary Schools>> SC [2004] No.9	The State Council	Retired teachers are requested to hand over to the local education bureaus at the same time with the schools transferring to the local education bureaus.

7/7/ 2004	<<Working Solution to Separating Social Functions from Harbin Railway Bureau>>	Heilongjiang SASAC Harbin Railway Bureau	To promote the separation of social function from Harbin Railway Bureau actively and effectively; reduce the burden to the enterprises; improve the core competitiveness of enterprises.
12/7/ 2004	<<Forwarding Heilongjiang SASAC and Harbin Railway Bureau's Working Solution to Separating Social Functions from Harbin Railway Bureau>> Harbin government [2004] No.43	The General Office of the People's Government of Heilongjiang Province	Request that low levels of government implement this instruction.
15/8/ 2005	<<Notification of Tax Deduction Related to the Expense of the Separating Social Functions from the Railway Enterprises>> MFSAT [2005] No.60	Ministry of Finance State Administration of Taxation	The expense on separating schools from railway enterprises in the period 2004 - 2006 can be deducted from the enterprise's profit.
10/10/ 2006	<< Notification of the Policy Issues Related to the Transferring of Primary and Secondary Schools in Provincial SOEs>> Harbin SASAC [2006] No.280	Harbin SASAC, The Harbin Municipal Board of Education, the Harbin Municipal Office of the Committee, the Harbin Municipal Finance Bureau, Harbin Municipal Labour and Social Security Bureau	Outline of detailed procedures on transferring SOE schools to Harbin local education bureaus and the tasks needing to be completed on or before 10 Dec06.
19/9/ 2008	<<Notification of tax deduction related to the expense of the Separating Social Functions from the Railway Enterprises>> MFSAT [2008] No. 122	Ministry of Finance State Administration of Taxation	The expense on separating schools from railway enterprises in the period 2007 - 2009 can be deducted from the enterprise's profit.

4.4.3 Interviews

In this study, interviews are an essential source of information that complements the statistical data in addressing the research problem. It involves direct personal contact with the participant, who is asked to answer questions related to the research problem. In the other words, it is a "conversation with a purpose" (Lincoln & Guba, 1985, p. 268). It is a "face-to-face verbal interchange in which one person, the interviewer, attempts to elicit information or expressions of opinions or belief from another person or persons" (Denzin, 1989, p. 109).

The semi-structured interviews were carried out in Harbin and Shenzhen in August and September 2010. The interviews and fieldwork lasted 20 days. In many instances, the interviewees' reflections moved beyond the questions or they volunteered wider views and discussion of SOE education. The detailed interview data are reported in Chapters 5 to 7. The interview questions to different groups of participants are listed in Appendix B, while the participant recruitment and profiles are listed in 4.6.

4.5 Research locations

Schools in the Ministry of Railways in Harbin and Shenzhen were selected for this study. This Ministry of Railways has a comprehensive education system, which provides education from pre-school to higher education for employees and the children of employees. Heilongjiang province has the biggest number of state-owned enterprise schools (SOE schools). The data between 1994 and 1998 shows that Heilongjiang had 2,509 SOE schools, the highest numbers among all Chinese provinces.

Out of 1,144 railway schools in China in 2004, almost 20% schools were located in this province. Harbin is the capital and largest city of Heilongjiang province in northeast China, as well as one of the most populated cities in China. Located in the Harbin-Daqing-Qiqihar Industrial Corridor, Harbin is the political, economic, scientific, cultural and communications centre of Heilongjiang province, as well as an important industrial base of the nation (HKTDC, 2011a). Harbin has a lot of heavy industries, such as equipment manufacturing, pharmaceuticals, food processing and petrochemicals. There are more than one million students in 3,900 schools (Harbin Education, 2012). Harbin has a lot of nicknames, but 'the Ice City' is the most popular, because the well known annual Harbin Ice and Snow Festival has been held there since 1963 (HKTDC, 2011a). The research findings in this province are representative of the large numbers of schools and amount of school funding and therefore of significance.

Shenzhen, on the other hand, is not typical of the rest of China, but it is the most economically prosperous city in Southern China in terms of per capita income. Shenzhen is located in the southern part of Guangdong province in the Pearl River Delta. Apart from Guangzhou, the capital city of Guangdong province, Shenzhen is the biggest city in Southern China, situated immediately north of Hong Kong. It is the first Special Economic Zone in China. Shenzhen is an export-oriented city, with many light and hi-tech industries, such as telecommunications, computer manufacturing and electronics (HKTDC, 2011b). There are more than 1.44 million students in 1,757 schools (Shenzhen Education, 2012). Shenzhen therefore offers a counter-case to Harbin, which broadens the view of state-owned enterprise schools from Northern to Southern China.

The two cases are juxtaposed to facilitate analysis, but the study is not a systematic comparative study of the two cities. Rather, the two different cases were used for contrast in ways that prompted questions and opened up analysis.

4.6 Participant recruitment and profiles

After identifying research locations, a purposive sampling method was adopted to identify the interviewees. This sampling method is particularly effective and appropriate for this type of research, because it targets interviewees who are knowledgeable and able to provide sufficient information to answer the research questions (Mok, 2001). The selected interviewees in this study were senior officials at the State-owned Assets Supervision and Administration Commission for the State Council, senior officials at the General Education Department of the Guangzhou Railway Group and of the Harbin Railway Bureau under the Ministry of Railways, and finally, school principals and teachers (current and retired), who were assumed to be well informed about the transfer of railway state-owned enterprise schools from the Ministry of Railways to the Ministry of Education and local education bureaus. Fourteen people have been interviewed with tape recording; seven in Harbin and seven in Shenzhen. Each of them was interviewed for 45 minutes in his/her office. Through semi-structured interviews, the flow and direction of the exchange resources between the interdependent actors within the network of Chinese public education were described. The following table is the list of interviewees in Shenzhen and Harbin. The participants' profiles include their, affiliations and the contributions to this study and have been organised in Table 4.2. No participant can be identified by the following

information.

Table 4.2 List of participants used in this study

Research location	**Role**	**Departments/Institutes/Schools**	**Contributions on this research**
Shenzhen	Senior Leader	Local Education Bureau	Provided important information from LEB perspective. In-charge of negotiation and reception of SOE schools in the LEB.
	Former Senior Leader	General Education Department of the Guangzhou Railway Group	Knowledgeable about the railway schools under the Guangzhou Railway Group.
	Former Principal	Railway Secondary School	Provided detailed steps of the schools returned to the LEB.
	Former Principal	Railway Primary School	Provided detailed steps of the schools returned to the LEB.
	Vice Principal	Railway Secondary School	Attended the school principal's meetings and provided a lot of important information.
	Senior Teacher	Railway Secondary School	Provided impression and feeling of the teachers at the negotiation period.
	Teacher	Railway Secondary School	Stated his/her feelings and provided rich information about the reaction of the retired teachers during the negotiation period.
Harbin	Senior Leader	State-owned Assets Supervision and Administration Commission for the State Council (SASAC)	In-charge of the program. Provided a picture about the central government policy on MES.

	Division senior staff	Harbin Municipal Board of Education	Provided the decision-making of this shift from the perspective of the Harbin Municipal Board of Education.
	Former senior leader	General Education Department of the Harbin Railway Bureau	Supervised the railway schools under the Harbin Railway Bureau.
	Principal	Railway Primary School	Worked as principal in railway schools before and after the school transfer to the LEB.
	Senior Leader	Harbin Educational Research Institute	Shared his personal experience as a student and teacher in a Harbin railway school.
	Researcher	Junior Secondary Education Section, Harbin Educational Research Institute	Researched the quality of education in Junior Secondary Education Section, including railway schools in Harbin city.
	Researcher	Primary Education Section, Harbin Educational Research Institute	Researched the quality of education in primary education section, including railway schools in Harbin city.

4.7 Methodological issues

4.7.1 Reliability, relatability and generalisation

Reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions (Bell, 2005). In other words, it is stability or consistency of findings. Generalisation is a concern with the external validity of research findings (Bryman, 2008). A case study needs to allow for an understanding of

what is specific to a particular group, that is, what cannot possibly be generalised within and across populations (Davis, 1995). In another words, generalisability is sometimes part of the necessary trade-off for more detailed and accurate description (Hammersley, 1992). Bassey (1981) preferred to use the term 'relatability' rather than 'generalisability':

> an important criterion for judging the merit of a case-study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision making to that described in the case-study. The relatability of a case-study is more important than its generalizability (Bassey, 1981, p. 85).

4.7.2 Validity

Validity is "the design of research to provide credible conclusion; whether the evidence which the resource offers can bear that which is put on it" (Jupp & Sapsford, 1996, p. 1). Validation of the thematic analysis in this project involved the use of an iterative approach and participant quotes.

Iterative approach to data analysis

The interview data generated the themes that were developed. In this study, I discovered seven themes (or problems) from the interview data, namely, disqualified teachers, excess teachers, retired teachers, teacher salaries, school funding, school assets and staff at the railway general education departments. I, as researcher, then went back to the data with the themes in mind to ensure that the data really did fit the

themes. The theme development, then the return to the data, occurred several times for each theme as data were analysed. Themes were refined as necessary.

Participant quotes

Direct quotes from participating actors were used extensively in the presentation of the results of this study to support the themes that were developed and the findings of the study.

4.7.3 Coding and analysis

In qualitative research, coding is the process whereby data are broken down into components parts, which are given names (Bryman, 2008). It is the starting point for most forms of qualitative data analysis. Alternative words for coding are indexing, categories, themes that link chunks of data (text) as representative of the same phenomenon. In this study, I follow the process of qualitative data analysis based on Alan Bryman's four stages of analysis (Bryman, 2008).

Stage 1: First read

I read the interview transcript texts as a whole and made notes at the end. Then, I tried to identity any possible major themes coming up in my mind during reading. I checked any unusual issues and events in these texts. Finally, I grouped interview data into types and categories.

State 2: Read again

In the second read, I marked the text with underlining, circling and highlighting and wrote the marginal notes and annotations. Then, I labelled for codes and highlighted the key words.

Stage 3: Code the text

In this step, I marked the text systematically and indexed what chunks of text were about and themes. I then reviewed the codes, eliminated repetition and combined similar codes. Finally, I grouped them under themes. Thematic coding is one of the most common forms of qualitative data analysis. Sabatier (1986) in discussing the policy context suggests themes like causal adequacy, financial resources, legal/bureaucratic powers or constraints, political/interest group support, official/bureaucratic commitment and social/economic environment. I coded my interview texts in relation to the seven problems I had identified.

Stage 4: Relate general theoretical ideas to the text

In this stage, where coding is only part of analysis, I then added my interpretation, identified significance for respondents, made connections between codes. More importantly, I related the codes to my research questions and literature.

4.7.4 Translation

When research is conducted cross-country, interviewer use of multilingual qualitative tools is a crucial issue (Larkin, Dierckx de Casterlé, & Schotsmans, 2007). Interviews in this study were conducted in Chinese. I translated all the documents from English to Chinese or from Chinese to English and then had them checked by an accredited translator. Throughout this thesis, I have used China's standard Romanisation system, *hanyu pinyin*, for the names and places.

4.8 Ethical considerations

Ethics and ethical principles apply to all spheres of human activity; ethics serve to identify good, desirable or acceptable conduct (National Health and Medical Research Council, 1999, 2007). Ethical guidelines for research are however more than simple do's and don'ts; instead ethical considerations permeate all aspects of the research process (National Health and Medical Research Council, 2007). Ethical principles have two primary functions; firstly, the protection of the welfare and rights of participants in research, and, secondly, to facilitate research of benefit to the researcher's community or humankind (National Health and Medical Research Council, 1999). The key ethical issues for participants in this study were informed consent, voluntary participation, freedom from harm, and confidentiality. These were treated as follows.

Firstly, this research sought and was granted a Human Ethics Certificate of

Approval (CF10/1049 - 2010000550) (See Appendix A) from Monash University Human Research Ethics Committee (MUHREC) on 21 June 2010 ensuring regulated and guided procedures. Interview questions were created and submitted to the ethics committee for approval before conducting interviews (See Appendix B).

Secondly, prospective participants were selected and I sent the explanatory letter (See Appendix C) and questions to the interviewee a few days before the interview day, so that the interviewee could understand more about my study and have more time to prepare to minimise stress. According to my best judgement, answering my questions did not create any physical and/or psychological stress for them. Interviews may add time stress for participants, but not beyond the normal experience of everyday life. I asked them to sign the consent form for my research (See Appendix D).

Thirdly, audio-recording of interviews was conducted in an office where the confidentiality of the interview could be maintained.

Fourthly, I collected the data and brought the data back to Australia myself after making the field trip to China. All the computer files and data were zipped and encrypted with a complicated password to ensure privacy.

Fifthly, transcripts were saved using pseudonyms. I used pseudonyms when reporting the data so that participants could not be identified at any later stage. I reported the diverse views respectfully, in the belief that each participant held reasoned views. If

any participant did not want to continue in this study, he/she was free talk to me face-to-face during the interview or contact me by email or telephone before or after interview. If participants wanted to complain or struggled with research issues or about researchers, they were able to contact the MUHREC directly. If English was an obstacle to communication, they were able to contact Mr Raybert Kuk at the Hong Kong Federation of Education Workers and then Mr Kuk would report these issues to the MUHREC (Please refer to Appendix E for the acceptance letter of Mr Kuk to perform this task). It should be noted that expectations of research participants were different from those in Australia. For example, data disclosure in China is culturally acceptable. However, this research was being undertaken towards an Australian doctorate; therefore, participants were given full information and asked for their consent. Data collection was conducted in Chinese and as the researcher, I was knowledgeable about cultural expectations in these regions.

Finally, another important ethical issue is worth addressing here, that there is a cultural difference between China and western democratic countries, like Australia. Ministries in China do not write letters to academic researchers giving an approval of interview. The normal practice is that the researcher approaches the relevant government official, who replies and responds to the research invitation, to make an appointment by email, telephone or fax. And then researcher will visit them at the appointed time and place.

4.9 Summary and commentary

This chapter has presented an overview of approach and research techniques commonly applied in Chinese education reform. The research design chosen for this study, and the research approaches influencing it, have been discussed. The three techniques used to achieve triangulation in this study - statistical yearbook data, document analysis and interview data have been overviewed.

The methodological issues used to carry out the study were covered. A detailed discussion on the recruitment process, research sites, and participants' profiles has been overviewed. This chapter discusses compliance with ethical requirements.

The following three chapters report my research findings. Chapter 5 reports the trajectory of SOE reform and its implications for the provision of education through SOE schools. Chapter 6 discuss the governing structure in the Chinese education system and modes of governing in public, private, community and SOE schools. Chapter 7 argues that network governance permits the exchange of resources that are differentially valued by different actors, which allows for the negotiation of win-win outcomes by transacting differently valued 'goods' in the process of negotiating agreements about governing.

CHAPTER FIVE

The Trajectory of State-owned Enterprise Education

5.1 Introduction

Since China has one of the largest school systems in the world, education reform there is a hard and challenging task (World Bank, 2002). State-owned Enterprise (SOE) education forms a significant part of public education in China and shares a huge responsibility in providing education for the central government in China.

This chapter tracks the trajectory of SOE reform and its implications for the provision of education through SOE schools. Under the Modern Enterprise System, SOE schools are required to separate from SOEs and transfer to the Ministry of Education.

This chapter builds on fifteen years of data accessed through secondary sources, such as government reports and statistical yearbooks, to provide an overview of education provided by SOEs. It explores the history of SOE education since 1949, the year when the government of People's Republic of China was established. It then reports on the general landscape of SOE education by illustrating three aspects: quantity and diversity, distribution, and funding. Referring to the Modern Enterprise System implemented by the central government in 1993, the chapter reports on reasons for detaching schools, seen from the perspectives of the Central government, SOEs and SOE schools. It then describes the five methods of detaching schools away from SOEs. These methods include auction and sales, contract-out, a shareholding cooperative system, forming educational groups under SOEs and transfer to the

Ministry of Education. The first three methods are each a kind of privatisation, involving the transfer of public schools to private hands (Public to Private), and the last two methods result in schools remaining public, either by staying at SOEs or by transfer from SOEs to the Ministry of Education (Public to Public). This chapter reports on the advantages and disadvantages of a shareholding cooperative system and transfer to the Ministry of Education.

This chapter argues that SOE education has been an important component in Chinese education that has contributed to public education provision by establishing a diversified range of state-owned enterprise schools from childcare centres to higher education, across China. These SOEs have provided public education because they functioned primarily as socio-economic units, rather than purely as production units (P. W. K. Chan, 2000).

The structure of this chapter is as follows: Section 5.2 traces the birth and rise of SOE education since 1949. Section 5.3 overviews the landscape of provision of education by State-owned Enterprises. It consists of three aspects: quantity and diversity, distribution, and funding. Section 5.4 explains the reasons why schools needed to be detached from SOEs. Section 5.5 describes methods of detaching schools from SOEs as summarised above. Section 5.6 summarises the key points of the argument, offering some recommendations and concluding remarks.

5.2 The birth and rise of state-owned enterprise education

State-owned Enterprises (SOEs) are the foundation of China's industrial base. They dominate strategic areas of heavy industry, such as iron and steel, coal, metallurgy, chemicals, energy production, and petroleum exploration. SOEs are granted franchises to run transportation and communication industries, such as civil transport, railway transport, posts and telecommunications (Wong & Kheng, 1997). SOEs contributed 78 per cent of total industrial output in 1978 (CSY, 1999). They have contributed significant resources to the provision of education by establishing a diversified range of state-owned enterprise schools, from childcare centres to higher education institutions, throughout China.

State-owned Enterprise education is one of the key components in Chinese education. In 1993, Chinese SOEs established 25,800 secondary and primary schools, which accounted for one-third of the total number of urban secondary and primary schools in China, with 8.7 million students and 0.9 million teachers (Cong, 2004; Jing, 1994; Qin & Hong, 1996).

When the CCP took power in 1949, China was in a situation of low domestic productivity and economic backwardness (Steinfeld, 1998). Establishing SOEs aimed not only to complete allocated tasks as production units in the planned economy, but also to provide social amenities to their employees, such as education, medical, fire and legal services (Perkins, 1994; Rawski, 1999).

In 1955, the State Council released an important official document titled *The Regulation of SOEs' Self-organised Secondary School, Primary School and kindergartens*

stated that the mining firms or SOEs should provide schooling for the children of their employees. Schools could be created solely or jointly with other SOEs according to their situations. The document also indicated that the funding of these schools would be added to the operating expenses of the SOEs. In the other words, all these schools would be government funded.

In 1956, a year within the First Five-Year Plan (1953-1957), when the eighth Congress of the CCP launched a large-scale socialist program emphasising rapid industrial development, many SOEs first sprang up. Core industries like steel, petroleum, coal, chemical and railways were immediately requested to run schools to fill the great demand for education of the children of their employees. In the railway industry, the Ministry of Railways policy required that a secondary school should be established in each region with over 1,000 workers; a primary school should be set up in any region with over 500 workers; and a smaller teaching location (such as classroom) should be built in a region with between 100 and 500 workers (Huang, 1999). For these reasons, therefore, railway primary and secondary schools are scattered along railway lines. In 1996, the Ministry of Railways ran 548 secondary schools and 844 primary schools; the total number of students was 1.2 million (J. Xie, 2001). Similarly to core industries, mining sites, forestry, farms and military bases were requested to organise schools for their employees. Finally, SOEs located in poor regions were requested to organise schools in order to reduce the financial burden of local governments (H. Liu, 2004).

With technical and financial assistance from the former Soviet Union in the second five-year plan, the Chinese government created the foundation of heavy

industry by building a large number of new plants (Deleyne, 1973; D. Li, 1991). This fact pinpoints the reason why enterprises based on heavy industry predominate among SOEs in the present-day Chinese economy and why many schools are operating in SOEs which are based on heavy industry.

Under the "Open Door Policy" announced by Deng Xiaoping in 1978, the economic reform of SOEs was started. These reforms included expansion of enterprise autonomy, profit retention, and the setting up of an education science foundation to enhance teaching and learning in SOE schools (Cong, 2004). With these reforms, SOEs were encouraged to improve the overall standard of their schools. In general terms, the overall quality of teaching and finance in SOE schools has been better than in neighbouring schools. Taking railway SOE schools as an example, more than 70% of 1,000+ railway secondary and primary schools were judged to be better than local schools in 2000 (Cong, 2004).

5.3 Landscape of provision of education by state-owned enterprises

State-owned Enterprises have contributed a huge resource to the provision of education by establishing a large number of diversified SOE schools throughout China. This section will address the issues of number and diversity of SOE schools in general and specifically in the Ministry of Railways, including distributive location and funding.

5.3.1 Quantity and diversity of SOE schools

SOEs have served a very wide range of learners. They have not been restricted to primary or secondary school students (although schools for children and young

people form the largest percentage). Figure 5.1 shows that there were 21,323 institutions/schools in 1994, which included 314 higher education institutions, 547 senior secondary specialised / technical schools, 1,471 skilled workers schools, 6,617 secondary, 1036 junior secondary vocational and 11, 338 primary schools. The total number of secondary and primary schools was 17,955, which was 84% of the total in that year (CEFSY, 1994).

Figure 5.1 The types of state-owned enterprise schools in 1994 and 2007

The types of state-owned enterprise schools in 1994 and 2007			
Types of Schools		1994	2007
高等教育 Higher Education Institutions		314	110
	普通高校 Regular HEIs	3	57
	高職高專學校 Vocational HEIs		39
	成人高等学校 Adult HEIs	311	53
中等專業學校 Senior Secondary Specialised / Technical Schools		547	151
	中等技術學校 Senior Secondary Vocational Schools	120	62
	中等師范學校 Senior Secondary Normal (Teachers) Schools	4	2
	成人中專學校 Adult Senior Specialised Secondary Schools	423	87
技工學校 Skilled Workers Schools		1,471	263
中學 Secondary Schools		6,617	1,849
	高級中學 Senior Secondary Schools	1,493	135
	完全中學 Combined Secondary School (SSS+JSS)		426
	初級中學 Junior Secondary Schools	4,949	1,285
	成人中學 Adult Secondary Schools	175	3

職業中學 Junior Secondary Vocational Schools		1,036	106
小學 Primary Schools		11,338	2,314
	普通小學 Regular Primary Schools	11,157	2,312
	成人小學 Adult Primary School	181	2
	Total	21,323	4,793

Source: *China Educational Finance Statistical Yearbooks 1994* and *2007* (CEFSY, 1994, 2007)

Basic education was the most important part of the system of schools provided through SOEs. It consisted of six years of primary education and three years of junior secondary education. This was equivalent to the '9-year free basic education' in China. In 1994, over 75 per cent of state-owned enterprise schools were primary schools (11,157) and junior secondary schools (4,949), which provided education to the children of the employees in SOEs. The benefit of this arrangement was that the SOEs workforce could be stabilised without worrying about education for their children. It was an important matter, especially under the one-child policy in China.

Vocational education was an essential part of SOE education. It provided an alternative path for students after graduating from primary education. This path combined junior secondary vocational schools, senior secondary vocational schools and vocational higher education institutions. In addition, senior secondary normal schools and teachers' colleges provided entry to teaching in state-owned enterprise schools. The Xi'an Railway Vocational and Technical College, the Transportation Vocational and Technical College in Guangxi province and the Harbin Railway Branch

Teachers College were all vocational colleges in the railway education system.

Adult education advances skills and qualifications of staff in SOEs and provides a means of developing skills and quality of the SOEs workforce. Adult education includes adult primary school, adult junior secondary school and adult higher education institutions. The Shanghai Railway Bureau Secondary School for Adults, the Liuzhou Railway Engineering School for Adults, the Harbin Railway Branch Harbin Railway Business Service School for Adults and the Xi'an University of Railway Transport Workers are examples of adult education institutes in the railway education system.

Higher education is a significant component in SOE education. SOEs built and ran a lot of reputable universities in different provinces and municipalities. For example, the Ministry of Railways had Beijing Jiaotong University (previously Beijing Railway Institute) and Southwest Jiaotong University (previously Tangshan Railway Institute). The Ministry of Communications administered Shanghai Jiaotong University and Xi’an Jiaotong University. Most of these universities have been transferred to the Ministry of Education or various provincial education departments.

Under the Modern Enterprise System proposed by the Central government in 1993, the number of state-owned enterprise schools was reduced to 4,793 by 2007 (CEFSY, 2007). Most of these schools were transferred to the Ministry of Education and some of them were merged or disestablished. Not surprisingly, the state-owned enterprise schools that provided basic education were reduced relatively more quickly than others because, under the Chinese Compulsory Education Law, it became the duty of the Chinese government’s to provide nine years free basic education to all citizens.

The government piloted this shift of schools from SOEs to the Ministry of Education in 2004, by detaching 729 state-owned enterprise schools with 70,069 teachers and staff from the China National Petroleum Corporation, China Petrochemical Corporation and Dong Feng Motor Corporation (SASAC, 2005). With the success of this pilot, the Chinese government removed another batch of schools from 74 Corporations in 2005. These corporations were from industries such as nuclear, aerospace, ship building, steel, metallurgy and mining, chemical, power, transportation, business investment, fishery and forestry (SASAC, 2005) (For the list of names of these companies, please refer to Appendix F).

As the Chinese railway State-owned Enterprise schools have been selected as a case study in this project, I would like to offer an overview of the schools under the Ministry of Railways. The Chinese railways form one of the biggest industries in China and the Ministry of Railways provides a comprehensive education to the children of employees from pre-school education to higher education. The Ministry established 15 bureaus or corporations to manage schools in their geographical locations. Figure 5.2 outlines the Ministry of Railways owned 1,144 schools in 2004, which include 644 primary schools, 398 secondary schools and 102 technical colleges and adult schools. For the list of names of railway SOE schools, please refer to Appendix G. At the same year, 2004, Harbin Bureau owned the largest numbers of SOE schools (212 schools) which included 124 primary schools, 67 secondary schools and 21 technical college and adult schools.

The former senior leader of the Railway General Education Department, Harbin Railway Branch explained to me the characteristics of the location of railway schools

during interview:

> "The more dense the railway network is, the more railway schools there are; further to the south of China, there are fewer railway schools; in later developed cities or regions, there are basically no railway schools; where there have first been railway lines built and then a city, there are more railway schools; where there has first been a city and then railway lines, fewer railway schools exist." (Former senior leader of the Railway General Education Department, Harbin Railway Branch)

Figure 5.2 The number of railway state-owned enterprise schools under the Ministry of Railways in 2004

Railway Bureau Name	Provinces / Autonomous Regions / Municipalities	Primary School	Secondary School	Technical College and Adult School	Total
Harbin Bureau	Heilongjiang, Inner Mongolia Autonomous Region	124	67	21	212
Zhengzhou Bureau	Henan, Shaanxi, Hubei	98	74	10	182
Beijing Bureau	Beijing, Tianjin, Hebei, Shanxi	70	45	10	125
Shenyang Bureau	Jilin, Liaoning, Hebei, Inner Mongolia Autonomous Region	66	37	12	115
Hohhot Bureau	Inner Mongolia Autonomous Region	45	36	7	88
Chengdu Bureau	Sichuan Province, Guizhou Province, Chongqing Municipality	45	22	10	77
Guangzhou Railway Group Corporation	Guangdong, Hunan, Hainan	36	26	4	66
Nanchang Bureau	Jiangxi, Fujian	42	18	3	63

Shanghai Bureau	Shanghai, Anhui, Zhejiang, Jiangsu	29	10	8	47
Jinan Bureau	Shandong, Jiangsu, Anhui, Henan	25	13	8	46
Liuzhou Bureau	Guangxi, Zhuang Autonomous Region, Guangdong, Guizhou	22	15	4	41
Urumqi Bureau	Xinjiang Autonomous Region	17	13	2	32
Kunming Bureau	Yunnan	10	12	1	23
Qinghai-Tibet Corporation	Qinghai	9	7	1	17
Lanzhou Bureau	Gansu, Ningxia Autonomous Region	6	3	1	10
	Total	644	398	102	1,144

Source: *China Educational Finance Statistical Yearbook 2004*

5.3.2 Distribution of SOE schools.

State-owned Enterprise schools are established by SOEs in each province, autonomous region and municipality in China. However, they are distributed unevenly throughout China (See Figure 5.3). Most schools are located in the northern part (Xinjiang, Inner Mongolia, Heilongjiang, Jilin and Liaoning) and the central part (Sichuan, Hunan and Henan). Municipalities such as Beijing, Tianjin, Shanghai and the coastal provinces (such as Zhejiang, Fujian and Guangdong) have fewer state-owned enterprise schools. These provinces in northern China have more heavy industry, SOEs and state-owned enterprise schools. As mentioned in earlier, in Chinese policy, heavy industry (like steel, mining and ship building) are monopolised by the State and run by the SOEs. The data between 1994 and 1998 shows that Heilongjiang had 2,509 state-owned enterprise schools, the highest number among the provinces. In contrast, Beijing had the lowest number, only 135 state-owned enterprise schools.

Figure 5.3 Distribution of state-owned enterprise schools in China from 1994 to 1998 (by province, autonomous region and municipality)

Source: *China Educational Finance Statistical Yearbook 1994-1998*

5.3.3 Funding of SOE schools

The SOEs have contributed vast funding to education. Figure 5.4 outlines the details of the overall finance for education by SOEs in China and in each province. Between 1994 and 2008, the total funding for SOE schools was RMB¥144.1 billion (CEFSY, 1994, 2008). They contributed a share of nearly 6 per cent of national expense on education in 1994 and the central SOEs contributed more than 20 per cent of the central government funding on education in 1996 (CEFSY, 1994, 1996). This is a

significant contribution to government expenditure on education (For the list of names of central SOEs, please refer to Appendix H).

The funding gradually increased from RMB¥ 8.91 billion in 1994 to RMB¥ 13.9 billion in 2002 and then sharply decreased by 36.7 per cent to RMB¥ 8.8 billion in 2003. 2003 was the first year to implement the policy of "Separation of major and auxiliary industries and reformation of auxiliary industries" (主輔分離、輔業改制) under the Modern Enterprise System for SOEs. It is important to mention that the State-owned Enterprise schools faced a great challenge due to lack of sufficient funding when SOEs reduced education funding by 36.7 per cent from the previous year, against only a decrease of 11.5 per cent in quantity over the same period. Although the budget had been adjusted to RMB¥9.8 billion in 2004, the funding gradually declined by almost half from RMB¥ 9.2 billion in 2005 to RMB¥5.2 billion in 2008 (CEFSY, 1994, 2002, 2003, 2004, 2005, 2008).

Figure 5.4 The total expenditure on state-owned enterprise schools funded by SOEs from 1994 to 2008 (by provinces, autonomous regions and municipalities)

The Total Expenditure on State-owned Enterprise Schools Funded by SOEs from 1994 to 2008 (By provinces, autonomous regions and municipalities).

(In million RMB)

Provinces, Autonomous Regions and Municipalities		1994	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total	Average	Rank
黑龙江	Heilongjiang	949	1,226	1,387	1,407	1,491	1,792	1,726	1,600	1,354	1,816	1,759	1,318	1,231	1,413	20,468	1,462	1
新　疆	Xinjiang	659	810	943	1,049	1,149	1,157	1,178	1,433	731	773	639	566	601	355	12,042	860	2
山　东	Shandong	539	616	704	805	896	780	998	1,062	835	929	924	379	896	528	10,891	778	3
山　西	Shanxi	344	325	377	401	403	429	468	541	432	522	642	806	727	541	6,958	497	4
辽　宁	Liaoning	564	687	793	796	727	732	525	504	272	352	356	236	137	142	6,824	487	5
吉　林	Jilin	344	439	515	500	532	516	611	546	438	469	454	413	248	208	6,234	445	6
湖　北	Hubei	363	451	536	183	800	607	551	890	449	315	420	332	214	45	6,156	440	7
四　川	Sichuan	442	679	666	482	501	492	498	520	351	283	282	285	131	140	5,753	411	8
河　北	Hebei	322	393	468	462	519	603	632	567	478	595	335	140	121	108	5,743	410	9
内蒙古	Inner Mongolia	347	427	478	436	499	501	433	493	388	433	364	356	388	195	5,739	410	10
河　南	Henan	473	554	570	564	529	390	445	485	330	284	282	195	18	69	5,190	371	11
湖　南	Hunan	425	588	508	515	427	471	496	372	223	227	221	243	94	10	4,819	344	12
甘　肃	Gansu	240	300	339	373	312	345	337	446	413	426	357	235	367	114	4,605	329	13
广　东	Guangdong	288	344	370	398	633	491	599	558	199	214	178	119	97	35	4,524	323	14
陕　西	Shaanxi	238	264	311	334	346	406	487	525	246	256	259	288	224	168	4,351	311	15
江　苏	Jiangsu	305	381	523	483	385	456	427	324	211	189	157	56	95	58	4,047	289	16
上　海	Shanghai	378	291	342	356	374	359	344	284	45	60	140	495	101	109	3,678	263	17
海　南	Hainan	206	142	145	163	188	188	211	241	173	199	275	273	433	447	3,285	235	18
浙　江	Zhejiang	99	193	200	466	344	563	539	391	113	120	85	51	66	14	3,244	232	19
云　南	Yunnan	391	187	200	239	211	226	237	285	155	147	131	198	154	32	2,794	200	20
安　徽	Anhui	142	217	218	180	197	222	276	279	191	172	152	190	124	141	2,701	193	21
天　津	Tianjin	99	215	169	238	219	276	214	274	125	311	227	76	74	85	2,600	186	22
贵　州	Guizhou	161	116	140	201	184	212	230	218	154	189	190	232	161	121	2,509	179	23
广　西	Guangxi	185	219	235	271	265	246	252	258	141	146	58	49	34	28	2,386	170	24
北　京	Beijing	88	99	87	99	294	312	397	326	41	31	24	17	21	32	1,870	134	25
重　庆	Chongqing				208	193	183	175	139	69	109	103	98	110	23	1,409	128	26
江　西	Jiangxi	113	125	150	133	95	112	107	228	136	132	65	33	16	16	1,460	104	27
宁　夏	Ningxia	93	100	85	95	78	91	81	88	67	55	70	23	7	5	936	67	28
青　海	Qinghai	49	54	52	46	46	45	58	48	30	23	23	16	15	17	521	37	29
福　建	Fujian	67	48	48	59	39	31	49	24	21	24	0.2	0.0	0.0	4	414	30	30
西　藏	Tibet														0.2	0.2	0.2	31
	Total	8,914	10,491	11,560	11,940	12,875	13,233	13,582	13,949	8,810	9,801	9,172	7,718	6,903	5,203	144,149		

Source: *China Educational Finance Statistical Yearbooks 1994, 1996-2008*

From the perspective of the provinces, if a given province has more heavy industry, there were more SOEs and hence more funding to the SOE schools was available. The SOEs in the top three provinces (Heilongjiang, Xinjiang and Shandong) spent more than RMB¥10 billion in education between 1994 and 2008, while the SOEs in Ningxia, Qinghai, Fujian and Tibet spent less than RMB¥1 billion over the same period.

5.4 Reasons for detaching schools from state-owned enterprises

Before discussing what methods the State-owned Enterprises employed to detach their schools in next section, we need to know the reasons why schools needed to be detached. I will try to explain it concisely through the different perspectives of SOEs, SOE schools and the Central government.

From the perspective of SOEs, there had been a lot of problems associated with Chinese SOEs since the early 1990s. These include misallocation of resources, debt crisis, mounting losses, frequent bankruptcy, SOEs assets leakage and heavy social burdens, which are well documented (Tian, 1994; C.-M. Yeh, 1998). Firstly, misallocation of resources: the share of SOEs in total industry output declined sharply from 78 per cent in 1978 to 37 per cent in 1994 (CSY, 1994), while, at the same time, SOEs used two-thirds of the total resources and labour force in the country (Xiao, 1998). Secondly, debt crisis: the state banks were running out of money to prop the SOEs up, because 80 to 90 per cent of their lending was going to SOEs (C. Lo, 1998) whose managers lacked commitment towards their repayment obligations (Wen Li, 1997). Up until 1998, SOEs had accumulated a total of RMB¥ 1 trillion in bad debts (Wen Li, 1997). Thirdly, the mounting losses: with RMB¥477.2 billions drained from the government by unproductive SOEs in the 1978-1997 period, the losses brought about by such enterprises were huge (AEC, 1998). (For the sake of comparison, consider the fact that, at the end of 1998, China's state assets came to a total of RMB¥8,211 billion (She, 1999). Fourthly, frequent bankruptcy: the bankruptcy of SOEs had increased 50 times from 32 firms in 1990 to 1,625 firms in 1994 (Smyth, 1998). However, most of the bankrupted firms were small-scale enterprises that had incurred heavy losses over a

period of many years (Smyth, 1999). Fifthly, SOEs assets leakage: due to a lack of adequate monitory and supervisory systems in SOEs, local government officials and management staff were stealing SOE assets and selling them in public markets, in the order of some RMB¥100 million per day. Finally, heavy social burdens: half of production funds were normally transferred to provide social welfare for employees and basic infrastructure for society, such as running schools and hospitals and the compulsory funding of road construction.

From the perspective of SOE schools, there were three problems needing to be solved, namely: a severe shortage in education funding, a large gap in teachers' salary between SOE schools and local government schools, and a serious outflow of teachers and students. Funding to SOE schools from SOEs varied. Since SOEs had lost money, they reduced operating funding to schools, rather than to their production lines. It was a common problem that teachers were not paid their salary in full, or even received no pay at all (Yao, 1998). In addition, the teachers' salary gap between SOE schools and local government schools had widened since local governments had placed more resources and funding in education. In this situation, there was a heavy outflow of talented teachers from SOE to neighbouring government schools and a decline in the quality of teaching, which then lead to an outflow of students as well (Y. Xu, 2002).

From 1996, the railway enterprises understood that schools needed to be separated from the enterprise and eventually transferred to the government. Throughout the following eight years, the enterprises stopped large-scale capital investment, reduced the renovation of teaching equipment, and recruited no new teachers. This resulted in outdated facilities and an aging teacher workforce.

Interview data describe these changes. As one former school principal comments:

…when the Guangshen Railway Corporation was listed in the Shenzhen stock market in 1994, social functions needed to be separated from the corporation. There was a decline in allocation of school funds from SOEs: from RMB¥2.63 million (including staffing costs) in 1998 to RMB¥2.43 million in 1999 and to RMB¥2.18 million in 2000. Of this amount only ¥70,000 was for public expenses, so we needed to raise funds in our own ways.

(Former Principal, Railway Secondary School at Shenzhen Municipal city)

A former education administrator at senior level adds:

My first monthly salary in 1988 at the railways after graduating was RMB¥90, while my colleagues working in other places, earned less than RMB¥ 80 per month. It is hard to get a teaching post in railway schools, comparing with local schools. However, 1995 was a turning point. Rapid economic growth led to an expansion in education expenditure and a transformation of local schools. This formed a great contrast in term of investment: decline in SOE education yet expansion in local public schools. In term of teachers' salaries, while the salary of SOE schools teachers rose only a few dollars, that of local schools teachers rose tens of dollars per month. Pensions followed the same trend. Therefore, the gap was getting wider.

(Former senior leader of Harbin Railway Branch General Education Department)

A teacher reflects:

In the 1990s, the salary at railway schools was higher than at local schools. Many teachers applied to this [railway] school. However, since 2000, the pay of the local schools had slowly gone up. …. During 2000-2005, two teachers shifted to other local government schools. (Teacher, Former Railway SOE School)

From the perspective of central government, since the rapid growth of the

Chinese economy, the Chinese government now had a stronger financial base to support the education system. The main tasks were to reduce the educational burden of SOEs and improve the quality of basic education. The Chinese government recognised that it was its responsibility to provide nine years of free education (six years of primary schooling and three years of junior secondary schooling) for its citizens. The following quotes from government officials show this recognition:

Under the Modern Enterprise System, the goal of transferring schools from SOEs to the Ministry of Education is to release the enterprise to focus on its main business and to advance education.

(Division senior leader, SASAC)

It should be very clear that government duties or obligations should be borne by the government; social responsibility should be borne by the community. Government business enterprises should bear their own obligations. Therefore, SOEs transferred their schools, hospital, police force, courts and procurators to local governments. Under this background, the Ministry of Railways under a quasi-military management commanded that all railway bureaus or railway corporations should hand the schools over to local governments between 2002 and 2003. This was especially for schools offering compulsory education in accordance with the Compulsory Education Law, which was established in 1989. Provision of education under the Compulsory Education Law is the responsibility of the government.

(Senior leader, Local Education Bureau, Shenzhen Municipal city)

In sum, clear evidence of problems in the SOEs is plentiful; therefore, the Chinese government took serious steps to reform this large sector of the economy. The decision to establish a MES was made by the Third Plenary Session of the 14th Central Committee of the CPC in November 1993. A MES centering on public ownership is the

foundation of a socialist market economy. It focuses on improving state assets management, with attention to clearer property rights within a sound legal framework, organisational reform, and strengthened corporate governance (Broadman, 1995). In 1993, the central government requested that schools detach from State-owned Enterprises under the implementation of the MES.

5.5 Methods of detaching schools from state-owned enterprises

In view of the background described in the previous section, the hot debate was about the ways in which the schools needed to be detached. These ways can be organised into the five following methods: auction and sales, contract-out, shareholding cooperative system, forming educational groups under SOEs and transfer to the Ministry of Education. These first three methods are kind of privatisations, involving public schools to private hands (Public to Private), and the last two methods are that schools remain in the public domain, either staying within SOEs or transferring from SOEs to the Ministry of Education (Public to Public).

In 2001, the Chinese State Council offered a further instruction in the report "The Decision on Basic Education Reform and Development" that under the premise of ensuring no loss of state assets, SOE primary and secondary schools could be run as *minban* schools under private owners. Therefore, privatisation in education could be processed under government control.

5.5.1 Auction and sales.

Auction and Sales is the easiest and fastest way to separate schools from SOEs.

However, this method has caused at least three problems: Loss of state assets, reduction in the quality of teaching, and economic burden to SOE staff.

5.5.1.1 Loss of State assets.

SOEs leaders were eager to act fast to detach their schools in order to reduce the burden on businesses. The value of fixed assets and intangible assets in schools is difficult to assess in a scientific method. Therefore, school premises and teaching equipment were likely to be sold at a low price or converted to become the private property of the business leaders. This caused the loss of state assets. In China, there were 150 Property Rights Transaction Centres, which were facilitating brokered and negotiated private sales of assets in small SOEs, with major centres in Beijing, Chengdu, Shanghai, and Shenzhen (Smyth, 1998).

5.5.1.2 Reduction in the quality of teaching.

When schools were sold to private investors, the teachers were upset emotionally and financially, because they regarded themselves as “money earners” for these investors. Also their pensions and medical insurance were not secured. In addition, most private investors knew nothing about education. They tended to evaluate teachers not by their teaching performance, but by personal relationships. As a result teachers felt their situation was constantly under threat and the quality of teaching was not guaranteed.

5.5.1.3 Economic burden to SOE staff.

When the ownership of schools was changed from SOEs to private investors, some of these investors disregarded State regulations on charging for tuition and fees

for children of SOE employees. Instead their object was to make money, which increased the economic burden on SOE families.

5.5.2 Contract-out

Contract-out is another way of privatisation. Although the ownership was still with government, the Lessees did not consider education as a public welfare and service, but as a profit-making business. Students in these schools were regarded as money-making objects with various pretexts given for extra charges. According to one author, contract-out should not be the main way to reform the school, but rather a last resort. Schools which needed to be contracted out should be handled in strict accordance with State mandated procedures (R. Zhu, 1999).

5.5.3 Shareholding cooperative system

The implementation of a shareholding system is a moderate way to reform successfully run State-owned Enterprise schools. The idea is borrowed from the shareholding cooperative system of small SOEs. Since 1993, the ownership of more than 6,000 small SOEs has been transformed into a shareholding cooperative system (Wilhelm, 1999; Xiao, 1998). This system involves the purchase of all or part of an enterprise's net assets by its employees, so that the workers who buy shares end up owning the enterprise. The employees can bid for their enterprise at an open auction. However, the Chinese government prefers the shareholding cooperative system instead of an open auction. This is because another bidder may bid a higher price, thereby reducing the incentive of the employees (P. W. K. Chan, 2000). This is a good approach used in reforming SOE schools, because it can not only protect state assets, but also

involve principals and teachers in the fate of their SOE schools.

5.5.3.1 The characteristics of shareholding cooperative system

The characteristics of a shareholding cooperative system include share allocation, risk bearing and profit sharing among employees.

A shareholding cooperative school can be viewed as a limited liability company in which the school's employees own a majority of the total shares of the school. Further, transfers of these employee shares are restricted in some ways. Common funds, or reserve funds, are established to purchase shares back from the employees when they leave and issue shares to new employees when they join the school. If the amount of fund falls gradually, it means more and more employees are leaving, so the remaining employees should inject their investment money to purchase the excess shares (Fang, 2002).

Different approaches to share allocation have been taken according to this perspective. The common approach is that shares be allocated according to the nature of the particular employee's job. For example the principal and school management team might own 50 per cent and teachers might own 50 per cent. Another approach is that each staff member should have an equal number of shares, because all employees of a shareholding cooperative school should have equal rights in term of management. Therefore, every employee must become a shareholder and purchase the same amount of shares in the school. One proposal suggested the ratio is 10 per cent for school principal and management team, 40 per cent for teachers and 50 per cent for State-owned Enterprises. Proposers would like the State-owned Enterprises to share

risks in managing schools (Fang, 2002).

Risk bearing in a shareholding cooperative system is shared by school management team and teachers. Schools have difficulty in receiving financial subsidies from government or State-owned Enterprises after implementing such a system. Alternatively, raising capital from employees by issuing shares is a good source of funds to run the school and solve the problem of scarcity of funds. In other words, this method can also reduce the SOEs' financial burden. As owners in the independent entity, the employees need to make decisions to manage their schools well through school boards. It is a general rule that correct and appropriate decisions make profits, while inaccurate and inappropriate decisions lose money. When the school suffers loss, the principal, management team members and teachers will bear the risks. The share of the loss will depend upon share in the ownership, measured in number of shares owned.

Profit is shared by school management staff and workers. As mentioned above, the risk borne by owners is the same as profit sharing in which they both participate. The proportion of profit allocated to each individual shareholder is based on the number of shares (s)he owns.

5.5.3.2 Advantages of shareholding cooperative system

The advantages for this system include avoiding government intervention, strong work incentives, a stable working fund and acceptability in terms of political concerns.

Government administrative intervention is avoided if the employees own all shares. Schools act as individual legal entities after conversion from SOE schools to shareholding cooperative schools. They make their own business decisions guided by a board of directors. Even if the government owns the large part of the shares in an enterprise, the government can only participate in business decisions by joining the board of directors under company law, rather than setting up some administrative and regulatory interventions. However, things never work perfectly and not every official in local government follows the instructions and orders of the central government and obeys company law. It is common to hear that government officials violate government orders and company law by using their political power to intervene in school decisions. Therefore, the legal autonomy of schools is emphasised in government education campaigns targeted at different levels of government officials.

There is a strong work incentive in schools. It is well known that a lot of problems in SOE schools can be traced to their weak internal incentives associated with state ownership and control. Without owning a stake in the schools, principals and teachers do not have the inherent incentive to perform well. Therefore, by letting them own shares in the school, their personal interests will be closely linked to the school's performance and they will care about the school's long-term growth and have less incentive to request excessive wage increases or in-kind benefits. In other words, the decade-long problems of State-owned Enterprise's "short-term behaviour" will disappear, assuming no free-riding (Chiu & Lewis, 2006).

A working fund is the cheapest and easiest way to raise funds by selling shares to employees. Unlike with a bank loan, no interest needs to be paid in this kind of fund

raising and there are no detailed terms of repayment. When this form of detaching schools is chosen, the government grants the shareholding cooperative schools priority access to bank loans enabling the purchase of the school. These loans are then repaid in instalments (X. Wang, Xu, & Zhu, 2004).

This method is also more acceptable in terms of political concerns. Under public or state ownership, the Chinese government still recognises that the ownership of state-owned assets has not changed, because they are still under control of "the people", not individuals or foreign companies. Therefore, this system does not necessarily lead to the weakening of the Communist Party's leading position and the decline of its power (Y. Zheng & Zou, 1997). In addition, by abandoning deficit producing SOE schools and letting them reorganise into shareholding cooperative schools, the government can greatly reduce its financial burden (JETRO, 1998).

5.5.3.3 Disadvantages of shareholding cooperative system

This shareholding cooperative system has its weaknesses. The disadvantages include bad shareholder behaviour and enforced purchase of poorly performing schools.

Not all of the employee-shareholders behave like owners and bad shareholder behaviour exists in this system. Some of them lack the incentive to make a long-term investment; they tend to request excessive short-term wage increases and in-kind benefits. Apart from the short-term investor, the state is also a major shareholder in some shareholding cooperative schools. In this situation the government has not sold all shares to employees, but retains a significant proportion of shares as a special case

in order to control schools through SOEs. Under such conditions, the managers tend to behave in the interests of the employees rather than in those of the state. Without a proper supervisory system, the state may suffer losses. The board of directors informs all employees of their decisions concerning long-term planning in order to increase their faith in their investments and reduce demands for short-term returns. Transparent management in schools increases the employee's incentive to invest more in the school.

Another problem may arise in terms of profit if employees are forced to purchase poorly performing schools. SOE officials often push school employees to purchase shares in their schools, even providing them with the loans to do so, if necessary. If the employee refuses, (s)he may be asked to leave the school. That an employee refuses to purchase shares is understandable, particularly if the employee is approaching retirement age; there will be no incentive to purchase the shares. In some cases, the schools may have a very bad record on profitability. So, if the school goes bankrupt, the employee will not only lose his job, but also his investment.

5.5.4 Forming an educational group under state-owned enterprises

Although the shareholding cooperative system seems a better method to privatise SOE schools, it has not been the most-used solution to reforming SOE schools. In successful State-owned Enterprises, there is a belief that running successful schools not only advances the image of the enterprise, but also stabilises the employees in the enterprise. Therefore, some enterprises made a decision to keep the schools under SOEs but separating them at the operational level, making them a legal entity and self-

financed. In this way the SOE schools become members of an education group under the same SOE or joint SOEs. The wellknown case is China Gezhouba Group (Youfa Fan, 2000; Y. Xu, 2002). China Zhenhua Electronics Group Xintian School is one of the schools in China to issue shares to raise an RMB¥ 5 million operating fund (Si, 2001).

Vocational education is the main focus in this approach because SOE vocational institutes or schools were not the same as SOE primary and secondary schools which had been requested to return to the Ministry of Education. Many Industrial departments supported the formation of an education group based on a specific area such as machinery, textiles and electronics. These departments believed that vocational education within their enterprises could ensure the quality of training. In addition, the workforce would be stabilised since quality education for the children of employees was secured. Education groups consist of schools and institutes in basic education, vocational education and higher education with the support of industries and with sufficient bank loans (Ying, 2001). However, some education groups may face tremendous economic pressures due to large school size, modern facilities, highly paid teachers, large operating expenses. This is particularly true, for those relying solely on tuition fees.

5.5.5 Transfer to the Ministry of Education

This option is a mainstream method to reform SOE schools. Most SOEs prefer to transfer their secondary and primary schools to the Ministry of Education, especially those poor SOEs who wish to stop funding their schools. Many advocates argue that the provision of basic education is the responsibility of government, therefore, they

encourage schools to separate from SOEs and transfer to local education bureaus, especially bureaus in wealthier provinces, cities and regions. These bureaus have enough financial and human resources to continue these SOE schools (Youfa Fan, 2000). For some vocational schools, they were encouraged to link with universities, such as Number 2 secondary school of Nanjing Normal University (Jing, 1994).

5.5.5.1 Advantages of transfer to the Ministry of Education

The advantages of this option include high and fixed remuneration, better training and a stable working environment.

High and fixed remuneration: When SOEs schools returned to the Ministry of Education, the teachers had higher and fixed salaries and a pension which was the same as that of the local teachers. Previously, their total salaries were calculated based upon a base salary and an efficient salary. Efficient salary is a kind of bonus from SOEs if SOEs ran well and had a profit. In the 1980s, when the SOEs had high profits, their efficient salary was much higher than the base salary, so the teacher salary in SOE schools was higher than that of the local teachers. The flow of teachers was directed from local schools to SOE schools. However, in the 1990s, when the SOEs experienced loss, there was no efficient salary, so the teacher salary in SOE schools was much lower than that of local school teachers. The flow of teachers was in the opposite direction, from SOE schools to local schools. In an extreme case, if a SOE went bankrupt, its teachers ended up with no pay. As teachers in this study report:

Remuneration in SOE schools included salaries and in-kinds benefits, such as everyday goods, two free return train tickers to visit families and unlimited trip passes for job duties. After schools returned to the Ministry of Education, our salaries were

doubled.

(Teacher, Former Railway SOE School)

Before returning to the Ministry of Education, I felt work pressure and the pressure of survival. Teachers at local schools could purchase houses and cars and I only maintained my basic living standards, but now [her school returned to MOE], the pressure of survival has been removed, there is only the work pressure.

(Senior Teacher, Former Railway SOE School)

The monthly salary for a principal in my SOE school was RMB¥ 3,800and for teachers was RMB¥3,600, but the monthly salary for local primary teachers was RMB¥8,000 and for secondary teachers was RMB¥9,000. Although we were double-paid at each spring festival [Chinese New Year] and received an additional RMB¥1,000 allowance at the moon festival, there was still a big difference in salary between SOE schools and local government schools.

(Former Principal, Railway SOE Primary School at Shenzhen Municipal city)

Railway teachers are more willing to go to the schools under local education bureaus because they would like to have a better opportunity for promotion, more training events, higher salary, less uncertainty.

(Division Senior Leader, Harbin Education Bureau)

Better training to advance their teaching skills: In the 1980s, the relationship between the SOE schools and local education bureaus was only a business relationship. The ownership of schools belonged to SOEs. Professional training for in-service teachers was provided by the general education office of each SOE or ministry. In the railway industry, SOE schools' teachers had training provided by their 15 railway bureaus. For example, The Guangzhou Railway Group Corporation covered three

provinces, namely: Guangdong, Hunan and Hainan. If SOE schools' teachers located in Shenzhen, Guangdong province needed to have teacher training or professional development, they were requested to travel 750 kms to Changsa, Hunan province or 600 kms to Haikou, Hainan province. When the SOE schools returned to the local education bureau, professional training activities could be organised within a district. In additional, sharing of teaching and school practice with the local schools' teachers was easier.

In general, each teacher will have 60-hours training each year with the budget of RMB¥1,000-2,000. This training can be arranged by schools and/or education bureaus. Railway schools had their own training schedule, but after returning to MOE, they have been unified into the current overall training system.

(Deputy Senior Leader, Local Education Bureau, Shenzhen Municipal city)

Previously, teacher training and quality control in training were done within the railway system, a small community [comparing with large public education]. But now, they can join the local schools' training programs.

(Researcher, Junior Secondary Section, Harbin Educational Research Institute)

Stable working environment: Since education funds were secured and allocated by local governments, principals and teachers no longer need to spend time and effort to raise money to maintain educational activities and their salaries.

The secured allocation of funds for running local government schools is in accordance with laws and regulations. Daily guaranteed funds included staff cost, public expense and special funding. In 2007, the expenditure on education per student was ¥12,037, public expense per student was ¥4,119 and special funding varied from several hundred thousand to 1 million per year.

(Former Principal, Railway Secondary School at Shenzhen Municipal city)

5.5.5.2 Disadvantages of transfer to the Ministry of Education

Apart from the advantages, there are three drawbacks, namely, a heavy financial burden on poor local education bureaus, a financial burden on SOEs, and financial, physical and emotional burden on SOE parents.

There has been a heavy financial burden created for local education bureaus. In some poor provinces or regions, the local education bureaus have limited resources in supporting their local schools. By adding extra SOE schools without extra resources, the local government has a financial problem to support them. If they are forced to do that, it will be at the expense of other local government schools in their area. Therefore, financial problems are a big issue in this approach.

SOEs were required to continue to bear operation costs for their schools even after the schools had been transferred to local government. It is a common phenomenon that local education bureaus requested at least three years school funding from SOEs. In some provinces, the local education bureaus required SOEs to share the annual funding of SOE schools in a diminishing ratio, such as 75% in the first year, 50% in the second year and 25% in the third year. Therefore, SOEs needed to prepare their funding annually.

SOE employees bore the cost as well. When SOE schools returned to local governments, some of them were merged with local schools because of resource reallocation. In additional, some SOE schools were scattered in industrial sites in remote areas, far from the support provided in urban areas by education bureaus. If

these schools needed to be closed down, parents needed to send their children to city boarding schools, so extra money and effort were required to pay for school boarding fees, transportation and to undertake a long journey. This also caused an emotional burden to them because of the separation of parents and children. This is not conducive to the stability of the enterprises.

5.6 Summary and commentary

School systems in different countries have a different dynamic and diversity, but China's education system is especially unique. State-owned Enterprise schools were built by State-owned Enterprises (SOEs) to provide education to children of their employees. SOE schools had a significant role in provision of public education in China from 1949, when the government lacked sufficient funds to finance education.

Under the implementation of the Modern Enterprise System and separation of schools from SOEs proposed by the Chinese government in 1993 and 2000 respectively, most secondary and primary schools belonging to SOEs needed to be transferred to the MOE. However, many SOE schools still remain within the responsibility of the SOEs, for many reasons. For example, a large number of SOE schools were scattered in industrial sites in remote areas, far from the support provided in urban areas by education bureaus. Apart from the method of detaching schools to the MOE, other methods have been applied in SOE schools, including auction and sales, contract-out, a shareholding cooperative system and the formation of educational groups under SOEs.

In short, Chinese SOEs used to function primarily as socio-economic entities rather than purely as production units. They contributed enormous resources and

tremendous effort in provision of public education. In the next chapters, I will explore in greater detail just how network governance theory has been applied in the railway SOE schools in the interaction of groups that make up networks involved in policy making. The chapters examine how the top-down policy is implemented from central government to ministry level, to province level, to municipal city level and finally to the district level. They also show the way networks support negotiation and bargaining at the district level, which influences the education policy of the central government.

CHAPTER SIX

Modes of Governance in SOE Schooling

6.1 Introduction

Governance in Chinese education is a complex issue. On the one hand, there is a state-owned system of public education run by the Ministry of Education, while on the other hand private and *minban* education are a growing field in China. Within public education, apart from schools directly under the Ministry of Education, State-owned Enterprises (SOEs) under various ministries have run a wide range of schools from pre-schooling to tertiary level, including vocational learning and adult learning for employees and their children.

This chapter focuses on the process of policy implementation that accompanied the implementation of the Modern Enterprise System. It reports on the three kinds of governing models in the Chinese education system, namely public, private (*Sili*) and community (*Minban*). Furthermore, it reports on four different pathways (general, vocational, adult, and non-formal and lifelong education) in order to argue that public education is still dominant in China. This chapter reports on the governance model in SOE schools under the central planning system. It documents the transformation of ownership in a railway SOE school at Shenzhen and then uses this case to show how top-down policy is implemented from central government to ministry level, and from there to province municipal and finally to the city district level. Networks support negotiation and bargaining at the district level, which in turn influences the education policy of the central government.

This chapter argue that these intersecting policy implementation processes show how the centralised Modern Enterprise System policy proposal is coordinated through actions and resource transactions between actors at different levels of government, ministries, schools, principals and teachers.

The structure of this chapter is as follows: Section 6.2 reviews the governing structure in the Chinese education system that includes three modes of governance (public school, private (*sili*) school and community (*minban*) school) and four different education pathways. Section 6.3 examines the governance in SOEs and their schools under the central planning and modern enterprise system, in which the concept of 'central steering and local diversities' will be addressed. Section 6.4 documents one case of the transformation of ownership in a railway school. Section 6.5 summarises the key points of the argument, offering some recommendations and concluding remarks.

6.2 The governing structure in the Chinese education system

The Chinese education system is a national system. The governance of education is centralised with the Ministry of Education (MOE) at Beijing, the capital city of China, and geographically distributed to provincial educational departments, local education authorities and schools. The MOE and the central government exercise substantial control over education governance, financing, curriculum, teacher preparation and assessment. However, the central government is shifting from direct control to macro-managing schools through measures including legislation, funding and macro-planning. Localities and schools are gradually being granted more decision-

making power and autonomy but also have to bear more fiscal responsibility (Harris et al., 2009).

6.2.1 Mode of school governing

Generally speaking, there is a dual system within China's socialist education: *gongban* (public/government-managed) schools and *minban* (people/community-managed) schools. The *gongban* school system has been dominant in terms of school size, student and teacher numbers, financing and administration. Unlike in Western countries, key public schools are regarded as providing better education than *minban* schools and students in these schools have a better chance of admission to good universities. *Minban* schools in China are generally regarded as an academically weaker (and far more expensive) alternative for students who could not gain admission into the better *gongban* schools, and only available to those whose parents can afford it.

After more than three decades of reform since 1978 (the beginning year of the Open Door Policy), China, as a socialist market economy, has found its own way of opting for a market-oriented strategy to achieve its economic goals. The term socialist market economy indicates the Chinese economic structure, characterised by a mixed system presenting the typical features both of market and planning economies. For more than a decade, China has obtained a remarkable achievement as the average growth rate of GDP has been about 10% (Heshmati & Kumbhakar, 2011).The impact of economic reforms on education in China is multi-dimensional, including a flourishing market economy and a policy of decentralisation. China's education has changed as rapidly as its politics, economy, culture and society. The change of the role of the state

in regulation, financing and provision of educational services indicates that China's educational development has undergone a similar process of marketisation, although the China experience is different from that of Western countries (Kwong, 1996; Tsang, 1996; X. Wu, 2008). The forces of modernisation and economic development have led to substantial changes in China's educational policy and governance. In the main, education reform has attempted to diversify school governance with a clear shift from central control towards local decision-making (Y. Liu & Fang, 2009).

Since public education provided by the state alone can no longer meet the people' s pressing and diversified educational needs, the Chinese State has issued different regulations to encourage schools run by the non-state sector. Mok (1997a) described various government policies and regulations assisting the establishment of the private education as follows:

> Early in 1985, the promulgation of 'The Decision on Reform of the Educational System' (Decision, hereafter) gave constitutional approval for the development of private education. The Decision made it explicitly clear that 'local governments must encourage and direct the state-run enterprises, social organizations and individuals to establish schools'….. In 1987, the state promulgated 'The Provisional Regulations on Social Forces Running Schools' ('social forces' is the official translation, referring to funds and provisions generated by people from different walks of life in society), further confirming the legal status of non-governmental educational institutions. Openly supporting the policy approach of `multiple levels, multiple channels, and multiple means', the state has passed other regulations such as 'The Regulation on Financial Management in Running Schools by Social Forces' , 'The Regulation on Teaching Management in Running Schools by Social Forces' and 'The Notification on Some Issues in Running Schools by Social Forces' since the

mid1980s. With such legal provisions, the role of non-governmental schools and colleges (including private education) is thus confirmed (p.46).

It is difficult to pinpoint exactly the difference between *minban* and private educational intuitions because people use the terms *minban* and private interchangeably. X. Wu (2008)classified the difference between these two types of *minban* schools: one is 'not-for-profit' while another is 'for-profit'. For the 'not-for-profit' school will retain the label of *minban* school whereas the 'for-profit' school is named as private (*sili*) school. (Mok, 1997c) outlined the story:

Because of the connotations of selfishness and disregard for the public good associated with "private," the CCP does not dare to openly endorse such a development. The enduring socialist ideal of egalitarianism places the state in a vulnerable position. On the one hand, because the central government is unable to offer a comprehensive package of educational services, it must revitalize local initiatives and individual efforts to create educational opportunities. On the other hand, national leaders fear that such a shift will reduce the state's influence over the public domain and eventually provoke a crisis of legitimacy in the CCP because of the decline of ideocracy. Thus, the government replaces the term "private" with minban, which means something else (p.271).

Private ownership is the major criterion which makes a school private (K. M. Cheng, 1994b). I will explain these terms in greater detail in the next sections.

6.2.1.1 Public school

Public schools at China are governed by a hierarchy descending from the National People's Congress of the People's Republic of China (legislation and supervision), to the State Council (drafting policies and plans, coordinating and

financing), to the Ministry of Education (implementation of national education policies), to the Provincial or Autonomous Regional Department of Education or Municipal Education Commission, to a Municipal Education Bureau and finally to a District Education Bureau.

Although the government has authority over the education system, the Communist Party of China plays a role in managing education. The party establishes broad education policies to tie improvements in the quality of education to its plan. The party also monitors the government's implementation of its policies at the local level and within educational institutions through its party committees. Party members within educational institutions, who often have a leading management role, are responsible for steering their schools in the direction mandated by party policy.

At a school level, the public school demonstrates a balance of centralised and distributed governance (Harris et al., 2009). In term of the forms of distributed leadership, the school principal is ultimately responsible for school decision-making and implementation, while deputy principals have responsibility for different aspects of school operations. The communist party secretary from each school participates in decision-making processes. In some cases, however, this position is also held by the school principal. Schools may also invite representatives from teaching staff, student bodies, and parents to be involved in decision-making and to support the work of the school.

In China there has been a strong trend to diversification and decentralisation of education, however, the state’s role as a regulator and overall service coordinator has

been strengthened rather than weakened under the policy of decentralisation (Mok, 2001).

The key public schools in China are the main targets of parents' choice, with private schools playing a more limited role, which is a striking contrast to the active role private schools lead in winning parents' favour in the West. Under the constraint of limited educational resources in China, key schools enjoy favourable government policy in having priority in the assignment of highly qualified teachers, better equipment, more funding, as well as the enrolment of the better-performance students. The Ministry of Education selected 1,000 demonstration senior middle schools in 1995, which can be regarded as the continuation of the key school policy (X. Wu, 2008).

6.2.1.2 Private (*Sili*) schools

In the early 1980s, the Chinese government allowed the establishment of the first private school (for-profit). Since then, China's private education has grown from scratch to remarkable proportions. However, compared with the public schools sector, China's private education is far from strong and remains in a marginal position. Though the state-funded public schools dominate, China now has more than 115,000 private schools, ranging from preliminary education to higher education and attended by over 30 million students (CSY, 2010).

Private schools are market-oriented and run "for-profit"; they are governed and driven by market demand (parents). These schools are basically self-supporting, utilising a variety of funding mechanisms, such as tuition fees, overseas Chinese

support, enterprises and debentures (Hawkins, 2000). Private schools in China can be categorised into urban elite private schools and ordinary private schools. Urban elite schools attract the most attention from society because of their extremely high tuition and construction fees (donations or debentures) charged to students. In 1997, the annual cost ranged from RMB¥15,000 to RMB¥35,000 per student (Zeng 1997). The size of donations or debentures that some elite private schools charge can be as high as RMB¥300,000, which is equivalent to almost 10 times GDP per capita in China. Students are admitted on a family income basis instead of on the basis of academic achievement (Mok, 1997a). The reasons for parents to choose private schools are the curriculum, teaching methods and preparing their children to study in overseas universities. Ordinary private schools provide education to children of migrant workers who have moved from poorer provinces. It is hard for their children to enter public schools due to regional protectionism, since public schools are more open to local residents.

In 1997, the State Council promulgated an administrative regulation to protect private schools legally. In 2003, the government proposed “the Law of Promoting Non-State Educational Institutions”, to support the development of private schools. Both regulation and law are designed to offer guidance to private schools in a legal and healthy framework so as to provide people with quality education. The Chinese government encourages the development of private schools to share the country's growing educational demands (People Daily, 2004).

6.2.1.3 Community (*Minban*) schools

The term *Minban* school here is limited to the school as a “not-for-profit”

public-community run school, such as a village school. Most of the expenditure (mainly salaries) is provided by communities or collectives when curriculum, instruction, quality control and school management derived from the state (K. M. Cheng, 1994b; Hawkins, 2000; Mok, 1997c; Chengzhi Wang, 2002). Due to the fact that there are a small number of community schools compared with private school and public schools and because it is hard to distinguish them from private schools in the statistical yearbook, I will not include this type of school in my analysis.

6.2.2 Domination of public schools in Chinese education

Despite increasing numbers of private schools in China, I argue that *gongban* schools remain dominant in China in the light of four major pathways: general education (pre-school to tertiary), vocational education (junior secondary vocational to vocational college), adult education (primary to higher education) and lifelong learning education (after junior secondary). In order to provide a clear picture of various schools located in these four education pathways, I have organised them as shown below in Figure 6.1.

Figure 6.1 China's education system

<table>
<tr><td>General Education</td><td colspan="2">Vocational Education</td><td>Adult Education</td><td>Lifelong Learning Education</td></tr>
<tr><td rowspan="2">Higher Education (General University, Normal University)
(4 years or above);
18 yrs old or above</td><td colspan="3"></td><td rowspan="2">Non-formal / Lifelong Learning</td></tr>
<tr><td colspan="2">Vocational Education (College)
(2-3 Years); 18-20 yrs old</td></tr>
<tr><td>Senior Secondary Education (General)(3 years);
15 - 18 yrs old</td><td>Specialised (3 years); 15-18 yrs old</td><td>Vocational Education
(2-3 years); 15-18 yrs old</td><td>Adult Education (Senior Secondary School</td><td></td></tr>
<tr><td>Junior Secondary Education (3 years); 12 - 15 yrs old</td><td colspan="2">Vocational Education (Junior Secondary)
(3 years); 12 - 15 yrs old</td><td colspan="2">Adult Education (Junior Secondary)</td></tr>
<tr><td colspan="3">Primary Education (6 years); 6 - 12 yrs old</td><td colspan="2">Adult Education (Primary)</td></tr>
<tr><td colspan="5">Pre-School Education (3 years); 3 - 6 yrs old</td></tr>
</table>

Source: Modified version of OECD (Organisation for Economic Co-operation and Development, 2011, p. 87)

6.2.2.1 General education pathway

This general education pathway is a common track for Chinese students to climb up the academic hierarchical ladder from one level to the next. In terms of access to education, China's system is represented as a pyramid, broader at the bottom (Primary education) and pointed at the top (Higher education). Unlike many developed countries in the West, the number of students accessing higher education is small, due to the limited resources allotted.

The development of private schools is encouraged at all non-compulsory levels including pre-school, senior secondary education, and higher education, but not at

primary and lower secondary levels, which are compulsory and considered a state responsibility (Liang, 2001). Overall, there is a small proportion of private schools compared with public schools at this level. Taking 2010 data as an example (Figure 6.2), private education includes 115,074 schools and 30,565,929 students while public education has 478,477 schools and 220,400,764 students. In other words, 88% students studied at public schools while only 12% students were at private schools.

Figure 6.2 General education pathway in China

	Category	Pre-School	Primary School	Junior Secondary School	Senior Secondary School	Higher Education (Universities)	Total Enrolment
Public Schools	Number of schools	150,420	257,410	54,823	14,712	1,112	478,477
	Number of teachers (Full-Time)	1,144,255	5,617,091	3,523,382	1,518,194	935,493	12,738,415
	Number of students	29,766,695	99,407,043	52,759,127	24,273,351	14,194,548	220,400,764
	Students in public schools (in %)	68%	95%	92%	92%	75%	88%
Private Schools	Number of schools	102,289	5,351	4,259	2,499	676	115,074
	Number of teachers (Full-Time)	680,404	229,480	N.A.	343,620	236,468	N.A.
	Number of students	13,994,694	5,376,255	4,421,129	2,007,006	4,766,845	30,565,929
	Students in Private schools (in %)	32%	5%	8%	8%	25%	12%
Total Students		43,761,389	104,783,298	57,180,256	26,280,357	18,961,393	250,966,693

Source: *Chinese Statistical Yearbook (2010)*

Primary schooling and secondary schooling are the fundamental elements of basic education within the Chinese education system. Compulsory education consists of six years of primary education and three years of junior secondary school. Basic education was provided for 161 million students in 2010, which accounts for approximately one-eighth of the total population in China (CSY, 2010). As mentioned above, the Central Government implemented the "Compulsory Education Law of the People's Republic of China" in 1986 to prioritise basic education as a key field of infrastructure construction and educational development. In 2010 there were 95% primary students and 92% junior secondary and senior secondary students attending public schools, while only 5% primary students and 8 % secondary students were enrolled in private education.

In contrast, in the pre-school and higher education sectors, it was found that private education occupied a bigger percentage. It catered for 32% of pre-school students and offered 25% of higher education institutions such as universities. Pre-school students will be discussed first, followed by higher education institutions.

It can be seen from the above that most pre-school children were still enrolled in kindergartens run by the State and local communities collaboratively (68%) (Lin Zhao & Hu, 2008). Pre-school education is not part of the category of compulsory education, but it is regarded as ‘the foundation of basic education’ (Lin Zhao & Hu, 2008, p. 197). This is the first phase for children to start their learning. It has been valued by the people of China for a long time especially under the One-Child Family Planning Policy (Ebbeck & Gao, 1996). Mobile private kindergartens are one of the key features for isolated regions and areas in China. This kind of kindergarten varies in style of

operation, such as semi-mobile/semi-stationary (seasonal) or daily/weekly delivery service (Ebbeck & Gao, 1996).

As for higher education in China, it is continuously growing, changing and developing; the number of enrolled students in 2000 was 80 times that in 1949 (R. Yang, 2004b). The state announced a benchmark regulation document in 1993 named 'The Provisional Regulation for the Establishment of People-Run Schools of Higher Education' to recognise the important role of the non-state owned higher educational institutions (Mok, 1997a). In 2010, there were over 1,700 universities (with undergraduate programs and/or postgraduate programs), of which 676 universities were private with over 4 million students, accounting for 25% of total student enrolment in higher education (CSY, 2010). Higher education in China has a long history. R. Yang (2004b) has given a full and systemic documentation on the trajectory of higher education development since 1949. He indicated that "China's higher education is moving fast to become one of the largest systems in the world" (p. 311).

6.2.2.2 Vocational education pathway

Vocational Education in China is an alternative track in provision of technical training for youth along with the general education pathway. To support China's shift from low-skilled, labour-intensive industries to more capital and skill-intensive ones, producing skilled workers via this vocational education is crucial. Furthermore, the 1995 government document 'Decision of the Central Committee of the Chinese Communist Party (CCCCP) on the Reform of Educational Structure' stated that:

> "Our socialist modernisation not only requires senior scientific and technical experts but also urgently requires millions of intermediate and junior engineers, managerial, personnel and technicians who have received adequate TVE as well as urban and rural workers who are well trained vocationally" (quoted in J. Yang, 1993, p. 136).

For this reason, in 1996 the Chinese government implemented the Vocational Education Law to provide guidance for vocational education. This law requires the different levels of government and relevant administrative departments, enterprises and institutions to adopt measures to develop and ensure for citizens vocational school education or vocational training in various forms (Liang, 2001). Vocational education consists of three levels of vocational education, namely, junior secondary, senior secondary and tertiary.

Private vocational schools and colleges are still few in number and weak, confined mainly to quick profit, short-course specialisation. In Figure 6.3, the total number of students in private senior secondary schools and tertiary vocational colleges is around 3 million and 2.6 million respectively, sharing only 13% and 21% of total students in these two sectors respectively. Popular private vocational schools generally offer two to three year programs, and charge tuition of about RMB¥ 4,000 - 8,000. They provide specific technical skills to students who will be much more employable after graduation. The courses include hotel management, tourism, accounting, secretarial work, commercial English, driving, and cooking (Liang, 2001).

Figure 6.3 Vocational education pathway in China

	Category	Junior Secondary Vocational Education (JSVE)	Senior Secondary Vocational Education (SSVE)	Tertiary Vocational Education (TVE)	Total Enrolment (only SSVE and TVE)
Public Schools	Number of Schools	67	12,152	1,113	13,265
	Number of Teachers (Full-Time)	1,975	792,544	359,074	1,151,618
	Number of Students	34,173	20,261,002	9,661,797	29,922,799
	Students in public schools (in %)	N.A	87%	79%	84%
Private Schools	Number of Schools	N.A.	3,123	323	3,446
	Number of Teachers (Full-Time)	N.A.	103,449	126,720	230,169
	Number of Students	N.A.	3,069,943	2,602177	5,672,120
	Students in private schools (in %)	N.A.	13%	21%	16%
Total Students		N.A.	23,330,945.00	12,263,974.00	35,594,919.00

Source: *Chinese Statistical Yearbook (2010)*

6.2.2.3 Adult education pathway

Adult Education is an important pathway to boost literacy rates and to advance skills for adults in China (The United Nations Educational, 2008). There have been

great outcomes witnessed in promotion of literacy, in-service training and adult education. The population of those judged illiterate above 15 years of age in 2000 was reduced by 100 million in the ten years before 2005 and the adult “illiteracy” rate dropped to 9.08% (T. Zhang, 2005). By 2005, China had achieved a 95% literacy rate for adults and young adults. In-service training and further education had also been developed proactively. In-service vocational and technical training had been offered at the scale of 140 million man hours. For peasants, the cultural training and training on applied technologies had been provided at the scale of more than 300 million man hours(T. Zhang, 2005). A rural adult education network covering almost every village, township and county centre had gradually taken shape in China (Z. Wang, 2003).

Private education has a minor role in adult education. Adult Education comprises four levels of study, namely, primary, junior secondary, senior secondary and higher education. Adult primary education includes workers’ primary schools, peasants’ primary schools, and literacy classes; adult secondary education includes junior and senior levels. It consists of separate specialised secondary school for cadres, for staff and workers, and for peasants, in-service teacher training schools and specialised correspondence secondary schools. Most adult higher education is run either by adult institutions or regular institutions of higher education. It is a vital component in Chinese education for advancing skill of the workforce. It includes cadre institutes, workers’ colleges, peasant colleges, correspondence colleges, and general educational colleges.

In Figure 6.4, the total numbers of students in these sectors are 1,946,573, 630,032, 114,970 and 2,123,974 respectively. In total, there are close to five million

students receiving education in the overall adult education sector.

Figure 6.4 Adult education pathway in China

Category	Adult Primary Education	Adult Junior Secondary Education	Adult Senior secondary Education	Adult Higher Education	Total Enrolment
Number of Schools	33,187	1,589	654	365	35,795
Number of Teachers	28,686	4,371	3,542	45,887	82,486
Number of students	1,946,573	630,032	114,970	2,123,974	4,815,549
% in total enrolment	41%	13%	2%	44%	100%

Source: *Chinese Statistical Yearbook (2010)*

6.2.2.4 Non-formal and lifelong education pathway

Non-formal and Lifelong Education is another important path for a country's substantial growth by advancing citizens' skills. It is agreed that this path is always associated with adult education. In fact, lifelong education supports a wide range of learners from vocational education and adult learning. Knapper and Cropley (2000) define the first and the most obvious principle of lifelong education system as "it must facilitate learning through people's entire life span" (p.35). The concept of continuing education in China has a long history. XunZi, a great Chinese ancient philosopher 2,500 years ago, proposed the idea that "there is never an end for learning". Another old saying that "It is never too late to learn" is well known among Chinese people. In the other words, the traditional concept of one-time education should be abandoned and the new notion of lifelong learning needs to be widely acknowledged.

Under the rapid economic growth of the last decades, there has been an ever-increasing demand for competent labour and specialised talent in various fields (G. Xie, 2003). China's economy policy makers and educators have adopted the concepts of lifelong learning and continuing education to address the needs of economic growth and increase productivity (N. R. Liu, 2009). In this pathway, public education dominates under the 2003-2007 Education Reinvigoration Action Plan by the Ministry of Education. This plan stipulates that by 2020 a modern national education system and lifelong education system shall be shaped, which are "systematically sound, rationally mapped, and development coordinated" (The Ministry of Education, 2004). Diversified learning opportunities with flexible modes have been provided to Chinese learners, including online education, evening colleges, workers colleges, correspondence colleges, radio-TV schools, examinations for self-learners, and diversified training institutions (Zhou & Zhu, 2007).

6.3 Governance in SOEs and their schools

6.3.1 Central Planning System

I now turn to look more deeply at the operation of the central planning system in China. Like the central planning system in the former Soviet Union and other socialist countries, the Chinese central planning system is formerly a highly centralised system, in which planning is carried out by administrative measures. This is the reason why governance in SOE schools is top-down and structurally organised by the central government and it is the root of the problem as to why the SOEs had such a poor performance before implementing the Modern Enterprise System in 1993.

Before the MES, the State was the chief designer of the whole economy while the SOEs

acted only as “production units” to implement allocated tasks assigned by the Central Planning Commission, converting raw materials to semi-products, or from semi- to finished products. The State owned all natural resources (land and minerals) and all of the productive capital (buildings, machinery, equipment and inventories), and conducted virtually all activities in primary, secondary and tertiary sectors (Ericson, 1991).

Liew (1997) outlines how the reform plans developed in China. I have simplified and re-organised his account in Figure 6.5. It explains how the Chinese central plan works and governs, and the relationship between the SOE schools, SOEs and the State (State Planning Commission). The State Planning Commission is the “brain” of the central planning system, which draws up plans, long-term (ten to twenty years), medium-term (five years) and annual, under the direction of the China State Council.

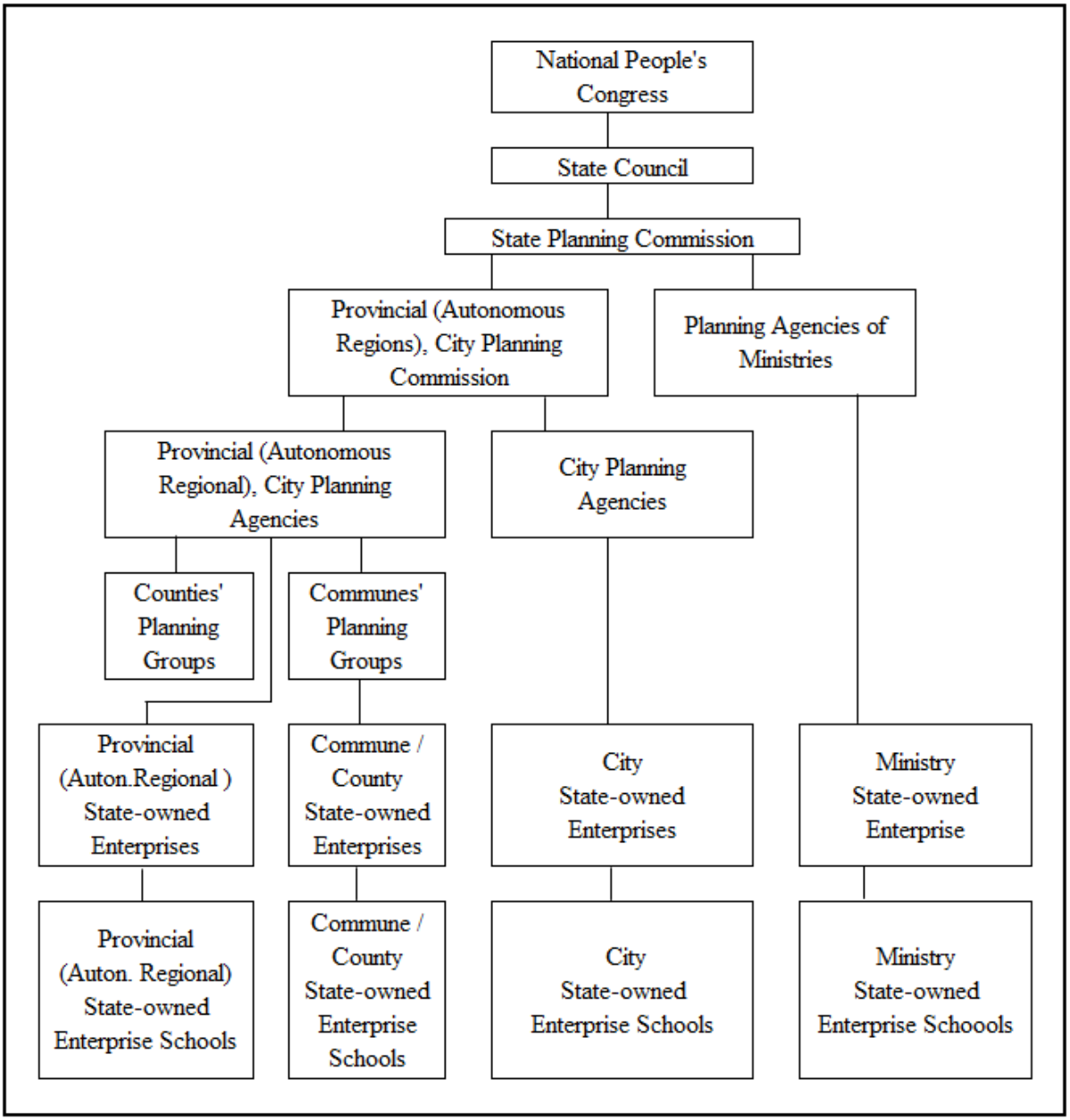
More specifically, the State Council designates general plan directions and plan control targets while the State Planning Commission sets these control targets after a series of research and consultation exercises with the region, ministry and basic level units. On the basis of these directions and control targets, and plans negotiated at the basic enterprise level, regional and ministry level planning agencies are coordinated in order to draw up individual regional and ministry plans. Before being submitted as a draft aggregate central plan to the State Council, the plan is first submitted to the State Planning Commission for reconciliation to ensure consistency across regions and ministries. Representatives from regions and ministries are then called to attend a national consultative meeting to finalise the central plan. Once the State Council adopts the central plan, it is submitted to the National People’s Congress, the highest

administrative authority in China, for approval.

The role of a State-owned Enterprise in this planning is to produce the amount of output which meets the requirements of the planning agencies and to request the inputs required to enable these outputs to be attained. Not surprisingly, the objective of enterprises has been to seek low production but high input quotas. The quotas were arrived at after a process of bargaining between planning agencies and the enterprises. No enterprise has any reason to exceed its target output because any over-achievement would only lead the planner to increase the target output in the next planning period. The enterprise would, therefore, have the incentive to disguise its true production potential (Liew, 1997). From such observations, we can pinpoint the reason why inefficient SOEs have hobbled the Chinese economy for so long.

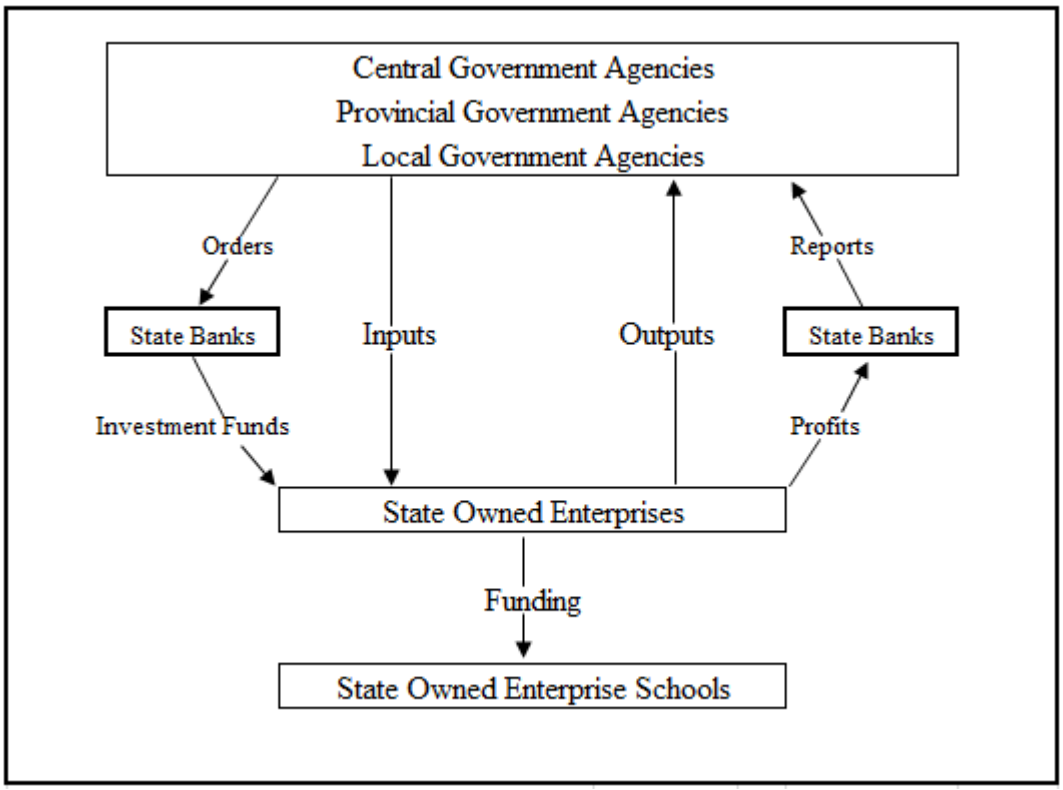
The actual process of planning in the traditional system involves iterative communication and bargaining among the central agencies and along the economic chain of command within each particular branch of the economy. Along with the planning of all physical economic activity runs a parallel process of financial planning, which is shown in Figure 6.6 on the next page. The state banks channel investment funds to the SOEs in order to allow them to complete the tasks, distribute wages to their employees and provide funding to SOE schools. The SOEs had the obligation to transfer profit back to the state banks if they generated a profit after completion of the allocated tasks. Until 1983 they were not permitted to keep it for the next assigned tasks, when the Chinese government announced the “tax for-profit” policy (Pascual, 1996).

Figure 6.5 The Chinese central planning system



Source: Modified version of (Liew, 1997)

Figure 6.6 The Relationship between the government, state bank and SOEs and SOE Schools



Source: Modified version of (Steinfeld, 1998)

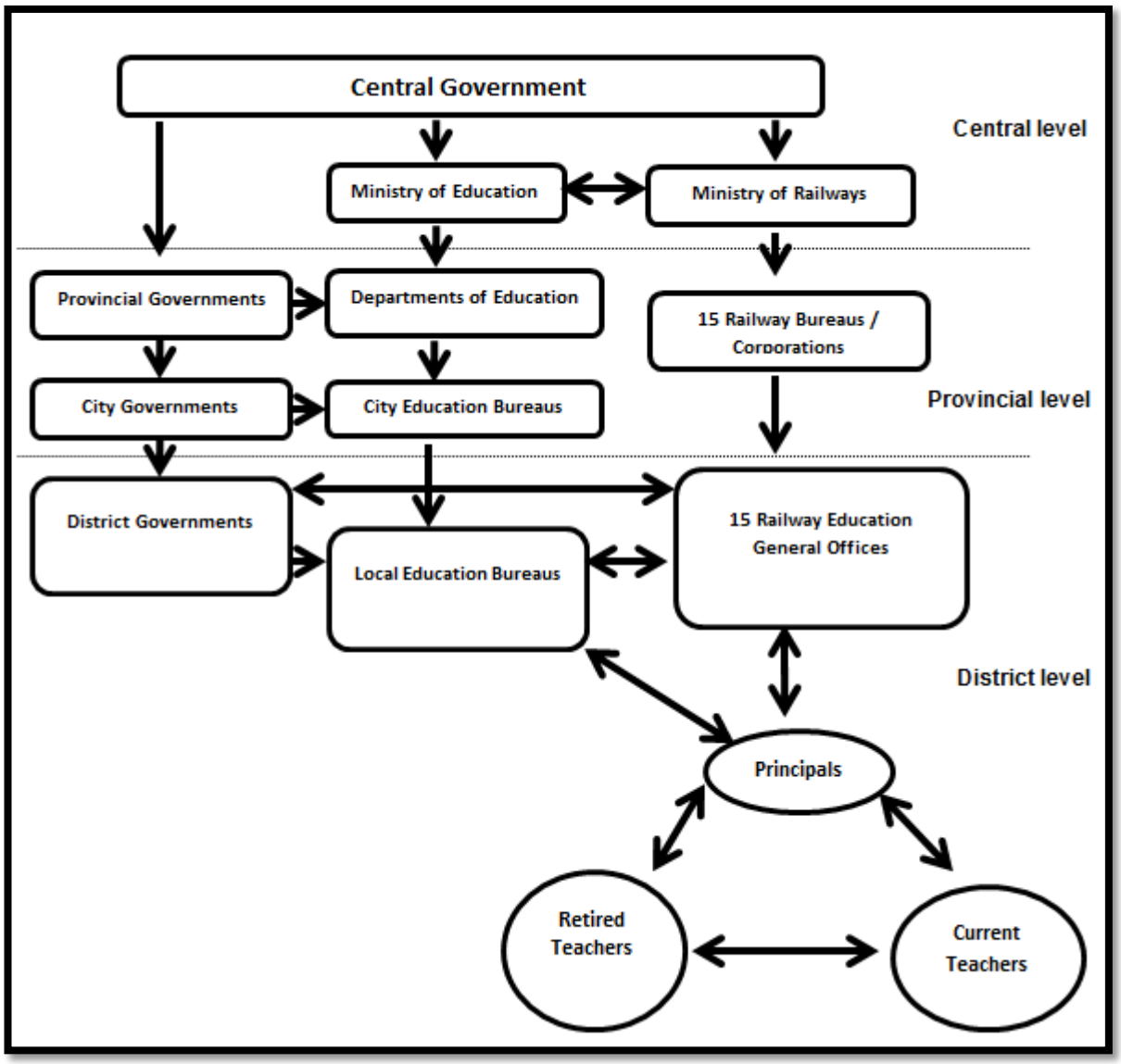
In Figure 6.5, SOE schools are placed at the lowest level of the Chinese central planning system. Although they share the name of "SOE School", they are governed by different SOEs, such as Provincial (Autonomous Region) SOEs, Commune/County SOEs and City (Municipality) SOEs. The last kind of schools, as is the case of Railway SOE schools in this thesis, is organised and supervised by a Ministry SOE (such as the Ministry of Railways) under the Planning Agencies of each Ministry. Other ministries include the Ministry of Communications, Ministry of Forestry, and Ministry of Agriculture. It is these ministries which make a decision about the date and the method for separation of SOE schools from the SOE.

In short, under the earlier central planning system, the SOEs were at the core of the central planning system. Their investment resources came from the plan, their input was delivered by the plan, their output was set and allocated by the plan, and the prices they received were determined by the plan. To put it slightly differently, the decisions on output, price of commodities, input, investment and choice of technology were taken by government agencies, rather than by firm managers.

6.3.2 Modern Enterprise System

Under the Modern Enterprise System announced in 1993, SOEs were required to detach their schools using various methods. I have summarised these five methods in the previous chapter. Among these methods, the mainstream method is to transfer schools to the Ministry of Education. In this section, I will illustrate policy implementation processes to show how the centralised Modern Enterprise System policy proposal is coordinated through actions and resource transactions between actors at different levels of government, ministries, schools, principals and teachers. I will give an example to show how a top-down policy was applied in a single school when it was removed from an SOE to the Ministry of Education in 2004.

Figure 6.7 The flow of decision and bargaining under Modern Enterprise System



There are three one-way and top-down flows of the orders and commands in government education and railway administration at central and province levels. The flow of decision-making shown in Figure 6.7 is from central to provincial and down to district level. The government administration flow is from the central government to provincial governments, then to city governments and finally to district governments. The education administration flow is from the central government to the Ministry of Education, to departments of education, to city education bureaus and finally to local

education bureaus. Apart from the central government, the Ministry of Education is the top of the education administration, however, the department of education, city education bureaus and local education bureaus are co-governed by the provincial governments, city governments and district government respectively. The railway administration flow is from the Central government to the Ministry of Railways, from there to 15 railway bureaus / corporations and finally to 15 railway education general offices. In the decision to detach railway SOE schools from the railways, the Ministry of Railways and the Ministry of Education will have two-way communication under guidance of the central government.

Two-way communication and negotiation between actors at district level: these are completely different scenarios, which are networked in two directions. There are negotiation and bargaining between participating actors, namely district governments, local education bureaus, railway education general offices, principals, current teachers and retired teachers. Railway education general offices bargain with district governments and local education bureaus to negotiate terms and conditions related to the problems of excess teachers, teachers' salaries, school funding and school assets. Even in two neighbouring cities, the results of bargaining may be different; the whole process of governance has the characteristics of 'Central Steering and Local Diversities'.

Beginning in May [2004], we [the Railway General Education Department] together with railway branch personnel unit, labour unit, social security unit and property unit have formed a joint organization. We went to this county one day and that city the next day to have negotiations. The agreement is quite complex, and each school is different. The principles of the negotiated result are consistent with provincial

government overall policy, but have minor adjustments based on the local government situation.

(Former Senior Leader of Harbin Railway General Education Department)

Although our schools were returned to the local education bureau in 2004, we still paid the running cost of the schools (including teacher salaries with yearly adjustment) for three years until 31st December 2007.

(Former Senior Leader of Harbin Railway General Education Department)

The period between 2004 and 2007 is a three-year transition period. The railway enterprises [in Harbin] will give 3 years funding to support the schools, however, the funding is different from the proportional model (75%, 50%, 25%) of Shenzhen. It involves a consideration oflocal factors.

(Division Senior Leader, Harbin Education Bureau)

In this generalised model, principals, current teachers and retired teachers form a dual communication network to negotiate the best outcome according to their respective concerns. Principals are the key actors in this network. On one hand, they need to balance between the interests of retired and current teachers in the time schedule for returning to the local education bureaus; on the other hand, they also represent both retired and current teachers and need to reflect their concerns and negotiate about their concerns and issues to the local education bureaus and railway education general offices. In fact, retired teachers have their own ways to battle for their interests, which I will discuss in detail along with other problems in the next chapter.

6.4 A case of the transformation of ownership in the railway SOE school at Shenzhen

This section provides a detailed report on the top-down process of ownership transformation of a SOE School from the Ministry of Railway to the Ministry of Education in Shenzhen. The Chinese railway is one of the biggest industries in China and it provides a comprehensive education to the children of employees from pre-school to higher education.

Background

The Guangshen Railway Company - Shenzhen Railway Secondary School was founded in July 1985 and the objective of establishing this school was to solve the difficulty of school admission for the children of railway staff, and it is a form of corporate welfare for the company's employees. Under the market economy, the Guangshen Railway Company had separated but associated services, such as schools, medical institutes and the police force combined to establish a new company named Shenzhen Railway Industrial Development Corporation. In 1996, the Guangshen Railway Company Limited was registered and established in Shenzhen Municipality, the People's Republic of China (PRC), in accordance with company law in the PRC and issued shares were then listed on the Stock Exchanges in Hong Kong and New York. The school was renamed Shenzhen Railway Industrial Development Corporation, Shenzhen Railway Secondary School. Under the requirements of the Modern Enterprise System, the railway corporation transferred the school to Lo Wu District, Shenzhen Municipality

on 20th July 2004 and it was renamed Shenzhen Railway Secondary School. Before being removed from the railway, the school had 14 classes, 590 students and 78 teachers (including 26 retired teachers) while in September 2010, the school had 13 classes, 720 students and 61 teachers (including 40 retired teachers).

Process of transformation

The ownership transfer of schools from the Ministry of Railways to the Ministry of Education involved four levels of government (the Central government, Guangdong provincial government, Shenzhen municipality government and Lu Wu district government) and three levels of administrative corporation in the railway industry (Ministry of Railways, Guangzhou Railway Group Company and Guangshen Railway Industrial Development Corporation).

In 1995, the State Commission for Restructuring the Economy (Central government) proposed that SOE schools should be separated from SOEs.

The Ministry of Railways responded to this request by conducting industry-wide research on issues emerging from the institutional transfer in 1,368 railway schools in 1997 and then issuing advice on 'advancing the internal separation of enterprise education in railway enterprises' (關於推進鐵路企業教育部門內部分立的意見) in 1999. Their focus was on lump-sum funding. This caused a financial problem in the SOE schools before they were moved to the Ministry of Education because the Ministry of Railways reduced funding to schools significantly. In 2000, another document advised on 'Accelerating the Separation of Main business and associated business in the

Transportation industry' (關於加快推進運輸業主附分離和運輸企業內部分立工作的意見). The main focus was on distinguishing the social functions of enterprises (schools and medical institutes) from business functions.

The Guangzhou Railway Group Company responded to the above two instructions from the Ministry of Railways by issuing one guideline and one suggestion report in 2001 and 2002. In the first document with the title 'Project of Separation of Schools from the Guangzhou Railway Group Company' (廣州鐵路集團公司教育分工方案), the guideline required six urban vocational schools and 77 urban secondary and primary schools to be handed over to local government. Then the company released a report with the title 'The transfer of the railway primary and secondary schools to local governments in Guangdong Province' (關於廣東省境內鐵路中小學移交地方政府管理的請示), which suggested a plan for handing over 23 secondary and primary schools.

Further to this, the Guangshen Railway Industrial Development Corporation received an order from the Guangzhou Railway Group Company and then submitted a suggestion report, on 'The transfer of the Shenzhen railway secondary and primary schools to local governments' (關於深圳鐵路中小學移交地方政府管理的請示) to the Shenzhen Municipal Government in 2001.

The Shenzhen Municipal Education Bureau received a request from the Shenzhen Municipal Government to advise on 'the transfer of the Shenzhen railway secondary and primary schools to local government' (關於深圳鐵路中小學移交地方政府管理的意見). It proposed that the education bureau would accept railway secondary schools and primary schools under the administration of Lo Wu District

Education Bureau in 2001.

The Lo Wu district government and Lo Wu District Education Bureau replied to the municipal education bureau in 'Methods of receiving the Railway Schools in Lo Wu District' (關於羅湖接管鐵路中小學辦法的覆函) in 2001. It indicated that a condition of the transfer was that it would accept only current teachers, but not retired ones. The retired teachers were required to stay in the railway enterprises on low retirement benefits. This raised an argument regarding identity for the retired teachers. These teachers fought strongly on their own behalf, as will be discussed later.

The Guangshen Railway Industrial Development Corporation rejected the proposal and submitted another report: 'The implementation solution for transfer of the Shenzhen Railway secondary and primary schools to local governments' (關於深圳鐵路中小學移交地方政府管理的實施意見的報告). They requested a total solution for schools by transferring staff (including all retired teachers as well as properties) to local government in one move in 2001. However, this request was obstructed and could not be solved in an efficient way.

In 2002, the State Economic Commission and six other ministries and commissions (the Central Bank, the China Banking Regulatory Commission, the Ministry of Land Resources, the National Development and Reform Commission, the National Bureau of Statistics, the State Administration for Taxation) jointly put forward a proposal: 'Progress in advancing the separation of social functions from State-owned Enterprises' (關於進一步進行國有企業分離辦社會職能工作的意見). It proposed that schools and hospitals needed to be detached from the enterprise.

At the same time, the Guangshen Railway Industrial Development Corporation continued to negotiate with the local district government and submitted another report : 'Project of the implementation solution for transfer of the Shenzhen Railway Secondary and Primary Schools to local government' (關於深圳鐵路中小學移交地方政府管理的實施意見) to the Shenzhen Municipal Education Bureau.

The Lo Wu District Education Bureau submitted two documents on 'Instructions for receiving railway schools' (關於接管鐵路中小學的請示) and 'Instructions for receiving and management of railway schools in Lo Wu district' (關於深圳鐵路中小學移交我區管理實施方案的請示) to the Lo Wu district government in November 2003. The second of these documents mentioned for the first time that the Lo Wu Education Bureau would accept the retired teachers.

In 2004, the breakthrough point was that the central government distributed Article No.9 of the State Council Working Office: 'Notification of the State Council on the proper settlement of the State-owned Enterprises regarding the treatment of retired teachers in primary and secondary Schools' (國務院辦公廳關於妥善解決國有企業辦中小學退休教師待遇問題的通知), indicating that the retired teachers would all be transferred to the local education bureaus at the same time after 1 January, 2004.

In 2004, following an instruction of the central government, the Guangdong provincial government issued 'The Instructions on transfer of schools and medical institutions under railway enterprises to local governments in Guangdong Province' (關於印發廣東省境內鐵路企業所辦教育、醫療機構移交地方政府管理的意見). This clearly explained how local government should to perform tasks and manage budgets

during the transfer.

In 2004, following the instruction of the Guangdong provincial government, the Shenzhen Municipal Government issued a confirmation report: 'The arrangement of transferring schools and hospitals' (關於深圳鐵路中小學和鐵路醫院移交工作有關問題的報告). The core concern was to confirm the date of agreement and date of handover.

On 30 July 2004, with approval from the Shenzhen Municipal Government, the Lo Wu district government and Lo Wu District Education Bureau signed an agreement with the Guangshen Railway Industrial Development Corporation to accept the Shenzhen railway secondary schools and primary schools. After a three-year negotiation process, the ownership of the schools was transferred from the Guangshen Railway Industrial Development Corporation under the Ministry of Railways to the Lo Wu Education Bureau, Shenzhen Municipal Government.

6.5 Summary and commentary

In the largest education system in the world with over 250 million students, governance in Chinese education is a complex issue. The chapter has outlined how the Chinese education system is a national system with governance centralised at the Ministry of Education (MOE) in Beijing, and geographically distributed to provincial educational departments, local education authorities and schools. The MOE and the central government exercise substantial control over education governance. The chapter reviews three kinds of governing models in the Chinese education system, namely public, private (*Sili*) and community (*Minban*). This chapter argues that public

schools still dominate in the Chinese education system. The chapter highlights the governance issue in SOEs and their schools, which are top-down and structurally organised by the central government under the Chinese central planning system. Under the Modern Enterprise System, SOEs were requested to detach their schools with various methods. Transferring SOE schools to the Ministry of Education was the mainstream method. The chapter shows the one-way and top-down flows of the orders and commands in government administration, education administration and railway administration from central level to province level, and then to district level. Two-way communication between actors happened at district level to negotiate the outcomes, which may not have been the same in two neighbouring cities. The system of governance has the characteristics of 'Central Steering and Local Diversities'. Finally, the chapter provides a case of transformation of ownership in railway school at Shenzhen. It shows the detailed process of transformation, including the law and regulations announced at different levels of government, education bureaus, railway bureaus and the Railway Group Company between 1997 and 2004.

CHAPTER SEVEN

Policy Implementation through the Transaction of Differentially Valued Resources

7.1 Introduction

The problems of society can be solved by different approaches or methods of governance. In Chinese education reform, the most common and direct method is to use the administrative force of government to solve problems.

This chapter uses an alternative approach to focus on the kind of resources that are transacted between key actors associated with State-owned Enterprise schools in the process of policy implementation. This chapter also reports on the membership in this policy arena. The key actors include the State-owned Assets Supervision and Administration Commission for the State Council (SASAC), local education bureaus, the railway general education department, principals, current teachers and retired teachers. The associate actors consist of councillors at various levels of government and public media. The chapter identifies seven problems or issues that have been solved by an exchange of resources between actors. The problems relate to disqualified teachers, excess teachers, retired teachers, teachers' salaries, school funding, school assets, and staff at the Railway General Education Department.

The argument of this chapter is that resource exchanges between actors that are networked by SOE schools make a significant and positive contribution to the policy implementation process that relocated schooling functions from the State-owned

Enterprises (SOEs) to the Ministry of Education (MOE). I argue that network governance permits the exchange of resources that are differentially valued by different actors, which allows for the negotiation of win-win outcomes by transacting differently valued 'goods' in the process of negotiating agreements about governing.

Accordingly, the structure of this chapter is as follows: Section 7.2 reviews the membership or actors in the policy area and their goals and perceptions. Section 7.3 examines the resource exchange between actors with strategies to solve problems. Section 7.4 concludes with the results of bargaining between actors. Section 7.5 summarises the key points of the argument, offering some recommendations and concluding remarks.

7.2 Membership/Actors in policy arena and their goals and perceptions

Under the modern enterprise system, SOE schools were requested to detach from SOEs to the local education bureaus. This process involved a lot of government departments, agencies and individuals. I group them as key actors and associated actors. The key actors consist of State-owned Assets Supervision and Administration Commission of the State Council (SASAC), local education bureaus, the railway general education department, railway school principals, railway school current teachers and retired teachers. The associated actors include councillors at various levels of governments and public media.

The goals and perceptions of actors guided them to make rational choices by exchanging resources in a strategic manner. Figure 7.1 gives an overview of these key

actors, with their primary goals, perceptions of the issues at hand, and the strategies they employed to achieve them.

Figure 7.1 Key actors and their goals, perceptions and strategies

Key actor	Goal	Perception	Strategy
State-owned Assets Supervision and Administration Commission for the State Council (SASAC)	Advances the establishment of Modern Enterprise System in SOEs and pushes forward the reform and restructuring of SOEs.	The SOE schools should be detached from the Ministry of Railways to the Ministry of Education under the notion of the Modern Enterprise System.	Coordinating the issue of SOE schools between the Ministry of Railways and the Ministry of Education.
Local Education Bureau	Follow the command from the Ministry of Education and accept the school with minimum expense in the transition period and running cost afterwards.	Teachers not accepted without proper qualification; excess teachers and retired teachers. However, a large amount of money will be requested as a kind of compensation to accept (or take on) the retired teachers from the Ministry of Railways.	Only accept teachers when they start their teaching with qualification. Do not accept excess teachers and retired teachers.
Railway General Education Department	The school must be returned to local education bureau before 30th July 2004.	No teachers (current and retired) will be left in the Railway General Education Department.	Negotiation with local education bureau to accept all teachers. They are prepare to give some money as compensation as a last resort.
School Principal	The school must be returned to the local education bureau with all teachers (current and retired)	Balance the interests of current teachers and retired teachers. Solve the problem for teachers who applied for a	(1) Work with senior officials at the Railway General Education Department to bargain and

	at the same time.	teaching post without a qualification. Make maximum effort on behalf of the retired teachers.	negotiate with the local education bureau for the retired teachers. (2) Use top down approach to solve problem of current teachers without relevant qualification.
Teacher (Current)	The school needs to be returned to local education bureau as soon as possible to enjoy relatively high salary and benefits.	The issue of retired teachers is the obstacle. School should deal with these two matters separately.	Discuss with the principal about returning the school to the local education bureau first and then dealing with the problem of retired teachers.
Teacher (Retired)	They return to the local education bureau together with the current teachers.	If the school returns to the local education bureau with the current teachers first, they will be left behind.	(1) Talk to the principal to make sure they will be accepted at the same time to the local education bureau. (2) State their arguments to the local education bureau, based on the National Teacher Law. (3) Ask councillors to address their issues in the municipal council. (4) Arouse attention of the public media.

7.2.1 Key actors.

7.2.1.1 State-owned Assets Supervision and Administration Commission for

the State Council.

The State-owned Assets Supervision and Administration Commission of the State Council (SASAC) (国务院国有资产监督管理委员会)is a special commission of the People's Republic of China, directly under the State Council. It is responsible for managing China's SOEs, including appointing top executives, approving any mergers or sales of stock or assets, guiding and pushing forward the reform and restructuring of SOEs, advancing the establishment of MES, as well as drafting laws related to SOEs(SASAC, 2012). It supervises and coordinates 54 SASAC of provincial governments and municipal governments(SASAC, 2012).

Under the MES to release schools from SOEs to MOE, Harbin SASAC coordinated tasks among different government departments and bureaus. They included the Harbin Municipal Board of Education, the Harbin Municipal Office Committee, the Harbin Municipal Finance Bureau, Harbin Municipal Labour and Social Security Bureau, Harbin Municipal Land and Resources Bureau, Harbin Municipal Real Estate and Housing Bureau (SASAC-Harbin, 2004).

Our goal is to release these enterprises [SOEs] by allowing them to refocus on their main businesses. Education can be advanced when the schools are detached from the railway enterprises to the local education bureaus.

(Interview with the senior leader of Harbin SASAC)

The SASAC is a central administration to coordinate the issues of SOE schools between the Ministry of Railways and the Ministry of Education. It has a clear goal to advance the establishment of MES and push forward the reform and restructuring of

SOEs.

7.2.1.2 Local education bureau.

The local education bureau is the lowest administrative unit in the national education governance framework to implement the nation or province's education laws, regulations, rules and policies. Based on the characteristics of the district, it proposes the long-term planning and annual plan of education development in the district. The bureau implemented these plans after approval from the municipal board of education. It manages various kinds of schools located in its district.

Under the MES, the Harbin Municipal Board of Education arranges three divisions to receive schools at the district level, namely staff division, finance division, and land and property division:

The staff division was to arrange staff appointments, check teachers' qualifications and identification; the finance division worked with the provincial finance bureau to make sure the debts of the schools have been repaid by SOEs and will not be carried to the education bureau; the land and property division confirmed that ownership of the lands has been transferred from SOEs to the education bureau without any compensation. In other words, SOEs won't receive any money by sending the land to the Education Bureau. The right of ownership of the land goes to the provincial education department, the right of usage goes to the local education bureau in the district.

(Interview with the division senior staff of Harbin Municipal Board of Education)

At the district level, the goal of the local education bureau is to carry out the command from the Ministry of Education and accept a school with minimum expense

in the transition period and in running cost afterwards.

The [Shenzhen Municipal] government would like to save some expenses, so we proposed that they [Railway companies] hand over their schools later, not to be too hasty…… we will only accept current teachers and school properties, but not the retired teachers. The retired teachers who retired before returning to the education bureau should receive their pension and other retirement benefits from the railway enterprises under the social security system, but not from the education bureau.

(Interview with the senior leader of Local Education Bureau, Shenzhen municipal city)

In addition, the local education bureau would not accept teachers without a proper qualification, nor excess teachers. However, a large amount of money would be requested as a kind of compensation to receive the retired teachers from the Ministry of Railways. In fact, the local education bureau understood that they needed to receive schools under the Compulsory Education Law.

7.2.1.3 The General Education Department of Railway Bureau.

The General Education Department of Railway Bureau is responsible for the railway schools in a railway bureau. For example, the General Education Department of The Harbin Railway Bureau is responsible for the railway schools in Heilongjiang province. In the late 80s and early 90s, there were 220 railway schools, of which 47 schools were in Harbin city.

In the 1980s, the railway schools were brilliant: the quality of education and conditions of schools [infrastructure and funding] were higher than the local government schools. Schools were built along the railway lines. Strictly speaking, many places first had railway lines, then there were towns, and finally there was a district

government when the population reached a certain number. The railway [enterprise] was a central government enterprise, with high remuneration, rich teaching resources and better conditions than local schools. However, under the MES, the Ministry of Railways understood that the railway was a transportation industry and education was associated with it, a non-productive business. Therefore, schools returning to the Ministry of Education were a mainstream solution.

(Interview with former senior leader of General Education Department of the Harbin Railway Bureau)

In the MES, the number of railway schools was decreasing from 1997, when the central government required the schools to detach from the Railways. The Ministry of Railways set deadlines for different railway bureaus:

The Ministry of Railways requested us to complete this political task [schools returned to local education bureau] in 2004.

(Interview with former senior leader of General Education Department of the Guangzhou Railway Group)

The decision from the Ministry of Railways and the Harbin Railway Bureaus was that our schools must be returned to the Harbin local governments on or before 30th September 2004.

(Interview with former senior leader of the General Education Department of the Harbin Railway Bureau)

Therefore, the goal of the railway general education department was that the schools should be returned to the local education bureaus before the deadlines setting by the Ministry of Railways. They negotiated with local education bureaus to accept all the retired and current teachers by offering some money to compensate them.

7.2.1.4 Railway SOE school principals

Railway school principals were key persons in the negotiation and bargaining process between the local education bureaus, the general education department of railway bureau and their schools under MES.

Before our schools transferred to the local education bureau, principal Wang [the principal of the railway secondary school] and I prepared well for the official handover in accordance with the requirements of the district government. We worked as principals, personnel and as politicians.

(Interview with former principal of railway primary school at Shenzhen municipal city)

From the above, it is evident that principals have different roles in dealing with this complicated event. Apart from that, school principals needed to solve the funding issue for their schools as well.

Since 1996, the railway enterprise had understood the schools needed to be separated from the enterprise and then transferred to the government eventually. In the next eight years, the enterprise stopped large scale capital investment, there was reduced teaching equipment renovation, no new teacher recruitment, there were outdated facilities and aging of teaching staff. There was also a decline in allocation of school funds from SOEs: from RMB¥2.63 million (including staffing costs) in 1998 to RMB¥2.43 million in 1999 and to RMB¥2.18 million in 2000. Of this amount only RMB¥70,000 was for public expenses, so we needed to raise funds in our own ways.

(Interview with former principal of railway secondary school at Shenzhen municipal city)

Once the local education bureau was willing to receive schools after a long

negotiated process, school principals were requested, as gatekeepers, to perform some specific tasks before the actual date of transfer:

We were requested to conduct the following tasks: Personnel - we should not recruit new teachers on or before the end of 2003; Properties - we had to maintain current school properties, including the number of the trees within the school campus; School items - all products had to be standardised; School Records - all teachers' profiles and records should be standardised according to the requirements of the personnel department in local governments and school financial reports should be kept for ten years.

(Interview with former principal of railway primary school at Shenzhen municipal city)

During the MES, the goal of the school principal was that the schools should be returned to the local education bureau with all teachers (retired and current) at the same time, they needed to balance the interests of these two groups of teachers. In additional, they had to solve the problem for teachers who had applied for a teaching post without a proper teacher qualification.

7.2.1.5 Railway SOE school teachers (current)

Historically speaking, railway schools have had a sound quality of teaching staff and a good salary for teachers.

I completed my primary and secondary education in railway schools. The quality of teachers in railway schools was very good … These teachers had graduated from Tongshan Railway Institute, Tsinghua University, the University of Science and Technology of China. Although they had not received teacher training, their overall qualities were very good, especially their professionalism and humanity. A teacher

from Beijing Normal University had a great impact [positive] on me.

(Interview with senior leader of Harbin Educational Research Institute)

My salary in railway schools was RMB¥ 90 after my graduation, my classmates had less than RMB¥80 elsewhere. It was very hard to get a teaching position in railway schools, especially for those which were under good State-owned Enterprises.

(Interview with former senior leader of General Education Department of the Harbin Railway Bureau)

Before the schools were returned to the local education bureaus, teachers employed in railway schools at Shenzhen municipal city were struggling with low pay and limited opportunities compared with public school teachers. They had psychological stress because of unequal pay for equal work, but this situation was removed when schools were returned to local education bureaus.

In the railway school, we had work pressure and the pressure to survive. People [teachers] in other [public] schools could buy cars and houses, but we could only maintain a basic living standard. Now that the railway returned the school to the local education bureau, the pressure to survive was removed, but now work pressure was relatively higher.

(Interview with senior teacher of railway secondary school in Shenzhen city)

Railway teachers preferred their schools to be under local education bureaus because they wanted greater promotion opportunities, more training, higher salary and less uncertainty.

(Interview with division senior staff of Harbin Municipal Board of Education)

Under the MES, the goal of these teachers was for the schools to be returned

to the local education bureau as soon as possible to enjoy relatively higher salary and benefits. They regarded the issue of retired teachers as an obstacle and thought the school should deal with these two matters separately.

The case of retired teachers was the most difficult task to deal with during the handover period. It needed to be solved by the railway schools and the governments together… The current teachers had a lot of discussion and worried about the timing of accepting the retired teachers. They understood the desire of the retired teachers to return to the local education bureau simultaneously.

(Interviews with teacher of railway secondary school at Shenzhen municipal city)

7.2.1.6 Railway SOE school teachers (retired)

Retired teachers were the most active actors in this bargaining and negotiating process because they would have greater benefit if they could return to local education bureaus. These benefits were not only retirement benefits (pension), but also their professional identity as teachers.

Their retirement benefit [benefit for retired teachers in Harbin railway schools] is generally between RMB¥600 and RMB¥800, a thousand at most. But now [after returning], they have RMB¥3,000 to RMB¥4,000.

(Interview with senior leader of Harbin SASAC)

There are significant differences between the retirement benefit in SOE schools and local schools in Shenzhen. Retirement benefits in SOEs are RMB¥2,000 per month while local schools offer RMB¥6,600, three times the amount.

(Interview with teacher of railway secondary school at Shenzhen city)

And

Guangzhou Railway Group will sign the agreement [for school transfer] with the Shenzhen Municipal Government on the 20th of this month [December 2003]. If the city government does not accept these 33 retired teachers, they will only enjoy lower retirement benefits as workers of State-owned Enterprises. In additional to the difference in economic [retirement] benefits, it is sad that they will lose their teacher identity.

((Tao, 2003), Reporter of *Nanfang Daily*)

The goal of these retired teachers was, therefore, to return to the local education bureau together with the current teachers, because they believed that if the school returned to the local education bureau with the current teachers first, they would be left behind.

7.2.2 Associate actors

There are many associate actors in the policy arena, such as different government departments and agencies, but councillors and public media also have significant roles in engaging in this negotiation.

7.2.2.1 Councillors at various levels of government

Councillors were one group of important associate actors in assisting the retired teachers to present their cases and arguments in the meeting agenda at different levels of governmental councils.

Ms Fu, councillor of the CPPCC at central level and Councillor X, council of the CPPCC at Shenzhen municipal city level.

SOE School teachers have quietly dedicated their lives on the frontline of education. They have trained a large number of students who are contributing to our country, but they cannot receive equal pay for equal work and are not able to enjoy the same remuneration as local schools teachers. After decades of teaching experience, their retirement wages are only RMB¥300-400. Most of them live in poverty in their old age, and don't even have sufficient money to see a doctor...

Extract from the interview of Fu by *Heilongjiang Morning Post* (2007)

And

They [retired teachers] continue to fight and petition, constantly reflecting their views to the media through letters and interviews. Some of our teachers acted actively. My current principal [this vice principal moved to a local school] is a CPPCC [Chinese People's Political Consultative Conference] member in Shenzhen, he presented their case to the municipal council.

(Interview with vice principal of former railway secondary school at Shenzhen municipal city)

And

… However, the progress [school transfer and retired teachers] is too slow and the result is insignificant. Usually, once the SOEs made the decision to transfer their schools, they will strictly control funding [physical and financial resources] to schools, which will be a constraint on the schools' development. In a long-term perspective, this will affect education development in Shenzhen. For example, railway secondary and primary schools will suffer tremendous impact if they are at the crossroads of transfer and non-transfer.

Extract from Councillor X 's agenda at Shenzhen CPPCC

7.2.2.2 Public media

Public media are an important tool to monitor government and arouse public attention to controversial issues. The Chinese government has a heavy involvement in the media by controlling the largest media organisations, such as CCTV, the People's Daily and Xinhua. However, media in China are increasingly producing some investigative news, reports and programs about the causes of the societal problems. For example, this is a simple and small piece of a touching newspaper report about SOE schools' retired teachers:

"Teachers – preaching, coaching and puzzle solving". In Shenzhen, a group of old teachers have taught in state-owned schools for most of their lives, have answered students' countless, confused questions in their prime time. But now, retired, they face great confusion – after lifelong coaching, their teacher identity is lost. While eagerly awaiting an "answer" with their growing grey hairs, individual teachers cannot wait to "rejoin" [return to the local education bureau as teacher] until they had died. They are puzzled why is this so? Who will fix it?

((Tao, 2003), Reporter of *Nanfang Daily*)

Current teachers have identified the importance of public media to reflect their demands to the public and local authorities. More people know their situation; more people will sympathise with them and offer a helping hand to them.

The Southern Metropolis Daily reported this matter [retired teachers]. It channelled their requests [about teacher identity] to the local education bureau. Without this newspaper's report, the efforts of principals and teachers may not have achieved this result.

(Interview with teacher of former railway secondary school at Shenzhen

municipal city)

7.3 Resources exchange between actors with strategies for solving problems

Now, I turn to identify the problems associated with this education reform that took place when the schools were removed from the Ministry of Railways to the Ministry of Education, and analyse how problems were overcome by the actors' participation. Resources exchange between actors in a policy arena is an alternative approach, rather than a traditional top-down method, to solve societal problems (Rhodes, 1997). There were seven problems associated with the schools returning to the Ministry of Education under the Modern Enterprises System. These problems included teachers without formal qualifications, excess teachers, retired teachers, teacher salaries, school funding, school assets and non-teaching staff arrangements at the General Education Department of the Railway Bureaus. I argue that actors worked collaboratively through the transaction of differentially valued resources.

7.3.1 Problem of unqualified teachers

The local education bureau had required all the teachers to have teacher status on application forms when they applied many years previously, although some of them got their teaching qualification afterwards.

There was a complex problem: we were required to prepare records for all our teachers for the local education bureau before handover. There was a requirement, in fact it was a secret, that the local education bureau would only accept cadres [teacher professionals], not workers. It was a big problem because the railways were not originally organised for education; railway education recruited railway workers who

had graduated from high school, to take up teaching positions in schools. Then they completed further studies to finish their teacher education in universities. The local education bureau only referred to their decades-old records, from when they first joined the school, where they didn't yet have 'teacher' status. We had 15 cases. How could we proceed?

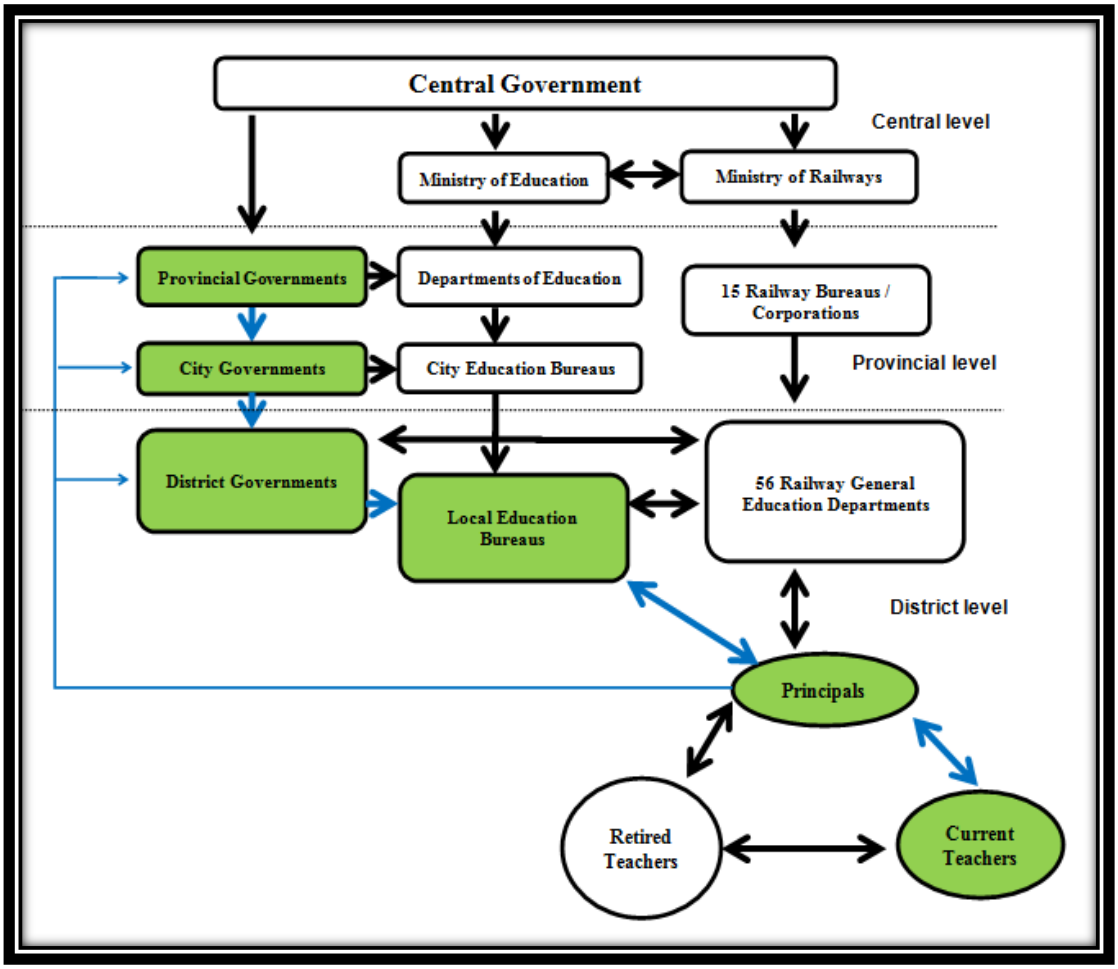
(Interview with former principal of railway primary school at Shenzhen municipal city)

This principal solved this problem skilfully.

I first clarified this issue with the district local education bureau and the manpower bureau by saying all these teachers got their proper qualification while teaching, but they didn't accept this. I understood the top-down policy process in China; I went to the Guangdong province manpower department to explain this matter and then got a letter with the official stamp from them to identity the teachers with proper qualification, and then I brought this letter to the Shenzhen municipal manpower department, they accepted it and wrote me another letter, and then I brought these two letters to the local education bureau and the district manpower bureau. They accepted it without saying anything.

(Interview with former principal of railway secondary school at Shenzhen municipal city)

Figure 7.2 Flowchart for solving problem of unqualified teachers



In Figure 7.2, after having discussion with the current teachers, especially for those teachers in this category, the first action taken by the principal was to explain the problem to the relevant government bureaus, hoping it could be solved directly. However, it was not solved properly, as the one of the goals of the local education bureau was to 'accept the school with minimum expense in the transition period and running costs afterwards'. Therefore, if fewer SOE school teachers returned to government schools, less funding would be required from the bureau. The principals understood the Chinese hierarchal and top-down administrative structure, which is that lower-level governments must obey and follow the instruction and decision from

higher-level governments without hesitation and question. They visited provincial governments, then city governments and district governments. A letter carrying an instructional decision or order from higher-level government is seen as a written document, which the lower-level government cannot reject.

In order to find a solution to this problem, principals made a huge physical effort to visit a number of government departments. Some of their visits were unpleasant.

We visited different governmental departments at all levels and did a lot of work. Teachers do not know how much bitterness we tasted and what tiredness we experienced. Some officials were happy to meet with us and some simply did not see us.

(Interview of former principal of railway primary school at Shenzhen municipal city)

7.3.2 Problem of excess teachers

There is a difference in teacher/student ratios between railway schools and government schools. The railway schools have a lower teacher/student ratio. Therefore, the local education bureau would not accept 7-8 excess teachers without extra funding. The former senior leader of the General Education Department of Guangzhou Railway Group told me the solution to this problem.

We used another condition to exchange and fulfil their requirements; we gave them the houses or apartments which are currently used for teachers' accommodation; they accepted this.

(Interview with former senior leader of General Education Department of Guangzhou Railway Group)

However, Harbin railway had a different approach to solve this problem.

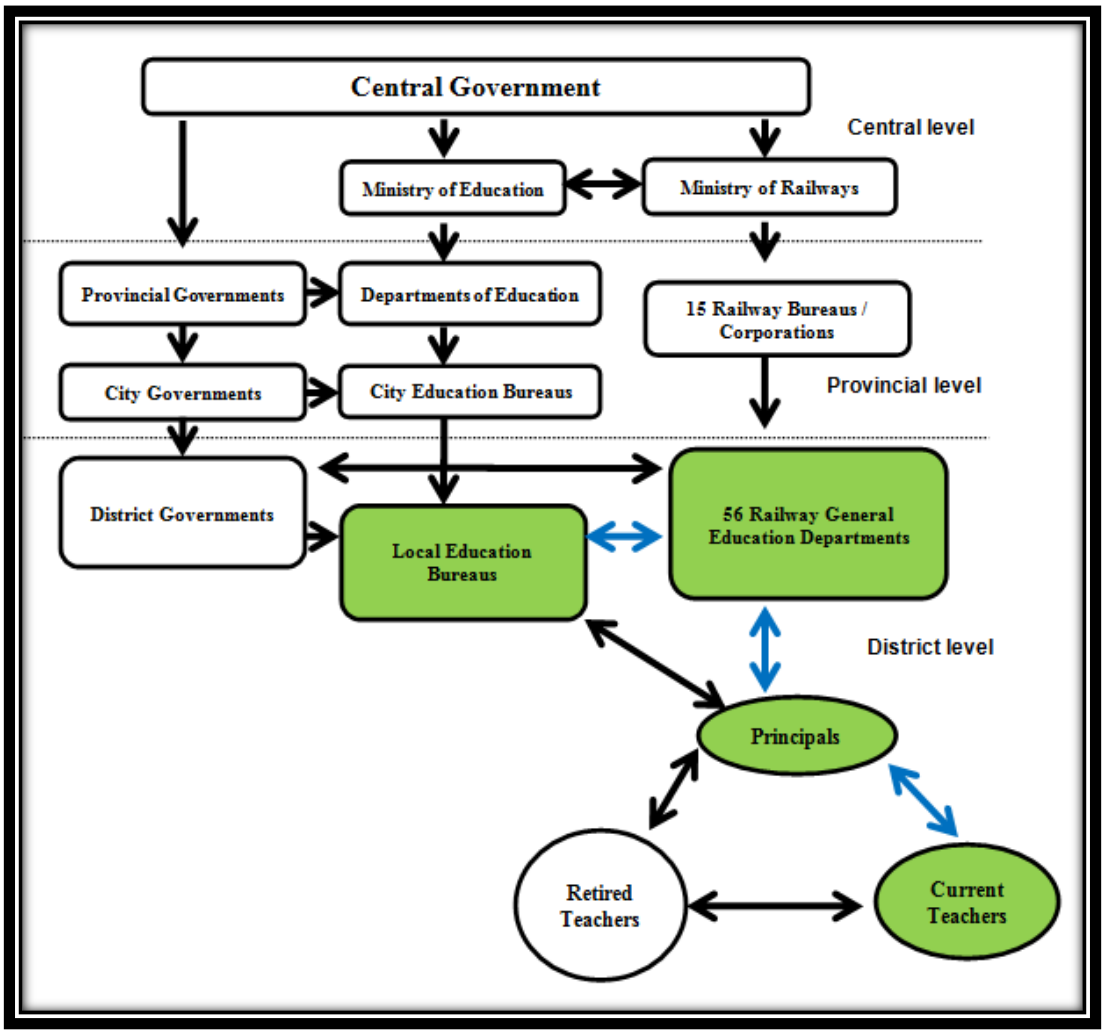
Excess teachers was a quite complex issue. We first referred to the government document, (document no. 69, personnel department 2002 – about the preparation of primary and secondary school staff [teachers]). It calculated the number of teachers based on the number of students on 31st December 2003. The local education bureaus only received the numbers of the teachers based on this ratio. We [the General Education Department of Railway Bureau] paid the excess teachers' lifetime salaries [salary for number of remaining years in their teaching before retirement] plus pensions to them [local education bureaus]. These agreements were quite complex and each school was different.

(Interview with former senior leader of General Education Department of the Harbin Railway Branch)

In Figure 7.3, school principals are the main actors to reflect the situation of affected teachers in the Railway General Education Departments. These departments had the goal that 'no teachers (current and retired) will be left in their office', because they needed a lot of money to maintain them. Therefore, their strategy was to negotiate with local education bureaus to accept all teachers. They were prepared to at least give some money as compensation. In fact, problems were usually solved according to local characteristics. The General Education Departments of the Railway Bureaus offered different approaches to solve this problem: Guangzhou Railway Group offered houses and apartments to the local education bureau in exchange for accepting the excess teachers, while the Harbin Railway Bureau offered money. This is a clear

example of how resources can be exchanged within parties to achieve mutual benefit for both parties.

Figure 7.3 Flowchart of solving problem of excess teachers



7.3.3 Problem of retired teachers

The problem of retired teachers was the most difficult issue to solve during the transfer period, as there was no precedent to follow. Different actors had different views on this matter.

They were also fighting for their own cause, using methods such as contacting

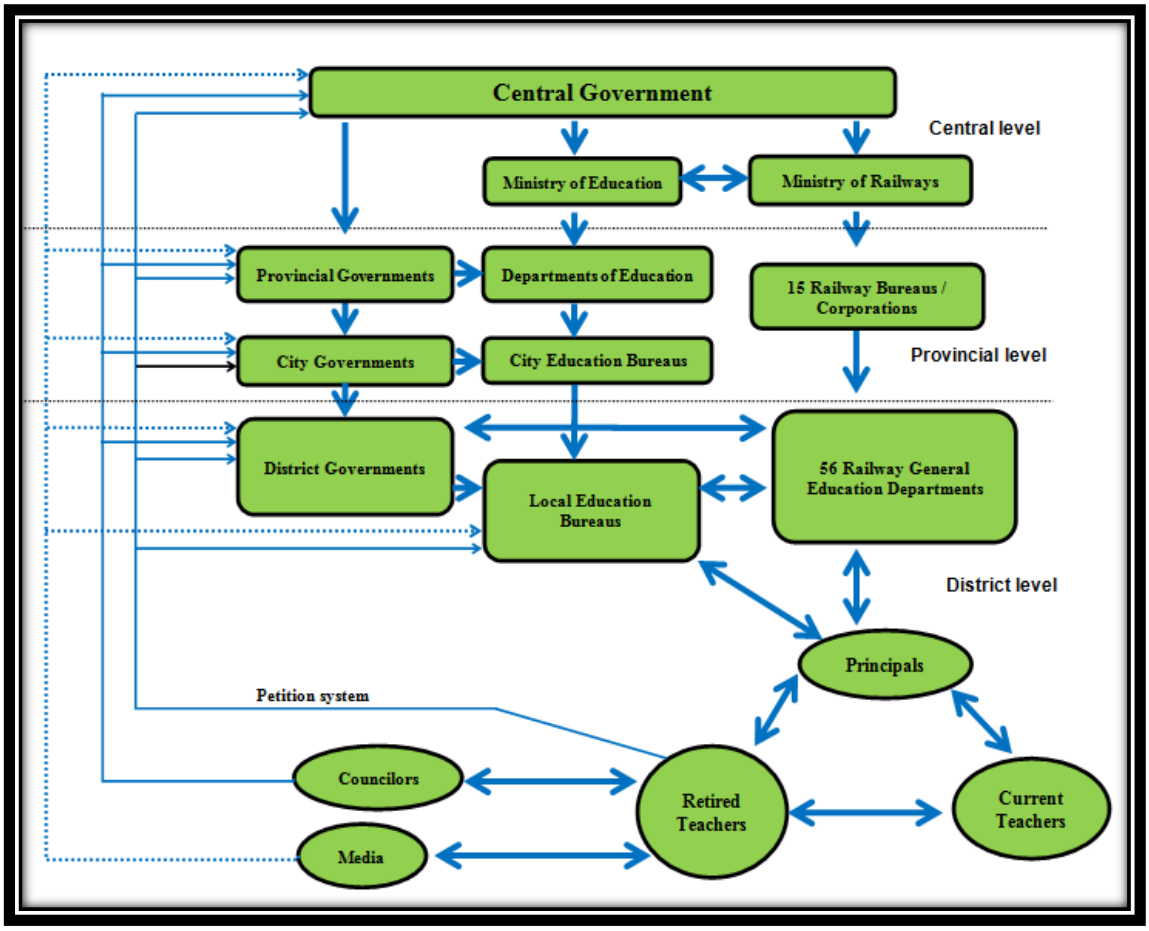
media. They selected 2-3 people as the main contacts, and once the matter related to the transfer, they all responded and worked together. They also got in touch with the retired teachers in other cities to exchange information and bargain together. Everyone knew that there was a significantly different retirement benefit between SOE and the government schools. The retired teachers could triple their pension to RMB¥6,600 per month if they were under the local education bureau.

(Interview with senior teacher of railway secondary school at Shenzhen municipal city)

Retired teachers formed alliances with retired teachers in different cities to exchange resources, such as information on current government policies on the issue of retired teachers in different provinces and cities. Therefore, they built a strong bargaining network in the negotiation process.

In Figure 7.4, this issue connects all key actors in this policy arena. The retired teachers claimed and fought for their rights and benefits under the Chinese Teacher Law, both formally and informally. The formal way was to communicate with the local education bureau by writing letters or through the principal. The retired teachers went through a petition system to various levels of government (central, provincial, city and district) and local education bureaus. The informal way was to seek help from media and city councillors. They also formed networks to connect with retired teachers in other cities to achieve more bargaining power.

Figure 7.4 Flowchart for solving problem of retired teachers



According to the Teachers Law of the People's Republic of China, “this law applies to teachers in various schools and other educational institutions”. A retired teacher said it was no doubt that this law granted them [retired teachers] teacher identity in SOE schools. "How am I not a teacher?" asked a confused teacher, holding up her teacher identity card and certification.

((Tao, 2003), Reporter of *Nanfang Daily*)

Although the central government did not have a clear direction in its document about this issue before 2004, one senior government official claimed the Teachers Law should be respected in that:

It is not fair if the retired teachers are not allowed into local education bureaus because of the teachers' law.

(Interview with senior leader of Harbin SASAC)

In addition, the education law of the People's Republic of China states clearly that the rights and interests of teachers are protected:

Article 32: Teachers shall enjoy the rights and interests stipulated by law, perform duties prescribed by law and devote themselves to the cause of the People's education.

Article 33: The state shall protect the legitimate rights and interests of teachers, improve the working and living conditions of teachers and raise the social status of teachers. Teachers' wages, remuneration and welfare shall be handled according to laws and regulations.

However, different local governments have different interpretations about this matter. Here is the extract of a letter to the direction of Shenzhen Municipal Government from a retired teacher:

Some government officers have pointed out that SOE school teachers and government local school teachers are different, so the retirement remuneration should be different. We think these officers treat us unfairly because: (1) they misunderstand the nature of SOE schools and our identities. On 13thMarch, 1993, the central government announced the 'Outline of educational reform and development in China'. No.48 in Article 6 points out clearly that 'enterprise funding for SOE schools is regarded as a government education expense'. (2) They do not show respect to the national constitution and Teachers Law. The national constitution states clearly 'Citizens of the People's Republic of China are equal before the law', we have same identity, same responsibility, same contribution as local school teachers, so we should have equal pay

under the Teachers Law…. Therefore, our cases will be solved easily if your department can adhere to the law as a basic principle.

Extract from a letter to the director of Shenzhen municipal city, 20th May 2003

Without clear instructions from the upper-level of government, the director of the Shenzhen Municipality Education Bureau expressed that they could not do anything for retired teachers.

Our department … certainly will help these [retired] teachers to fight for their rights, but now the situation is very complicated–different provinces and cities have their own approaches in dealing with this issue [retired teacher to local education bureau]. The decision in this matter is not in our department, but in [Shenzhen] city government. We need to wait for further instructions from the city government.

((Tao, 2003), Reporter of *Nanfang Daily*)

Other than that, retired teachers formed networks to connect with other retired teachers in different cities to exchange information and gathered together to achieve better bargaining power. They visited the same government departments and bureau time after time in the hope that their matter could be solved.

“Any departments where we thought they might help, we went; any departments we could go, we went” They had a notebook called "Rushing Memorandum”, which is a dense record of departments with which they negotiated, officers contacted and places visited in the past three years. However, they would stay at home and wait for news after each run around to the different departments and bureaus. After waiting for some time and when there were no good news or results, the teachers would start again to run a new round.

((Tao, 2003), Reporter of *Nanfang Daily*)

The breakthrough point in bargaining and negotiation was between the local education bureau and the railway bureau:

We know it is profitable in the railway enterprise. It is a public listed company, with higher investments in schools than local schools have. To this enterprise, funding for schools was a very small proportion of overall costs; however, we [local education bureaus] consider this funding is needed for the balanced development of various types of schools. In addition, we found that if retired teachers not return to local education bureaus, they would be a burden to the railways. Therefore, railway companies requested us strongly to accept them [retired teachers]. We knew it was their weakness and then requested RMB¥20 million in return for accepting their retired teachers.

(Interview with senior leader of the local education bureau, Shenzhen municipal city)

And,

We had paid a lot of money in this matter [retired teachers] ... In fact, we were prepared to pay for [them] because we understood that if they [retired teachers] were not transferred to the local education bureau, they would come to our office every day and it is too costly in administration to keep them.

(Interview with former senior leader of General Education Department of the Guangzhou Railway Group)

Similar to the solution to the previous problem, the local education bureau and the General Education Department of Railway Bureau found ways to negotiate with each other through the method of resource exchange.

Between 2001 and 2003, the retired teachers stated their views in the

negotiation process with the bureaus through the principal… and they wrote a lot of letters to claim their rights under the Teacher Education Law to the local education bureau and relevant departments, talked to the media, asked councillors to put their agendas to the Shenzhen Municipal Council, reported to higher-level government (provincial government and central government) through the petition system. I believe that the central government issued a new document [Document no.9] in 2004 related to their issue, because of their effort in bargaining.

(Interview with the vice principal of former railway secondary school at Shenzhen municipal city)

And,

The District government made concessions to accept the retired teachers, all the problems were solved.

(Interview with former principal of railway primary school at Shenzhen municipal city)

The final settlement was based on a central document (no.9) in early 2004 after a lot of rational discussion, debated arguments, strong bargaining and negotiation among participating actors. The decision of central government flowed from the central ministry level (the Ministry of Education and the Ministry of Railways) to provincial level (provincial governments, city governments, department of education, city education bureau and 15 railway bureaus/corporations) and then reached the district level (district governments, local education bureaus and 56 railway general education departments).

In this problem, the retired teachers spent a lot of physical effort and time to ask for or make exchanges for a higher pension and teacher identity when they

returned to local education bureau. The Railway General Education Departments were willing to offer money in return for giving retired teachers to the local education bureaus. In short, retired teachers were more concerned about their teacher identity and high retirement benefits than their physical effort and time, while the Railway General Education Department were more concerned about the problem of retired teachers staying on with them, without spending money. The local education bureau was more concerned about the future funding (Money) for the retired teachers, than about the problem of accepting retired teachers.

7.3.4 Problem of teacher salaries

The agreement on salaries for railway school teachers was one of the major issues in the negotiation process between the railway general education department, local education bureaus and railway school teachers. In Shenzhen, the teachers' salary at railway schools was lower than that at local government schools. A current teacher salary was double that for his previous teaching post at a railway school.

I was a teacher at a railway secondary school when the school was transferred to the local education bureau. At that time, my salary was RMB¥4,000 per month and now [after transfer], my salary is RMB¥8,000.

(Interview with teacher of railway secondary school at Shenzhen municipal city)

Figure 7.5 shows how current teachers would negotiate for their interest and benefit through their school principals. The school principals collected all these teachers' arguments and reported to the railway general education departments. The actual negotiation process took place between railway general education departments

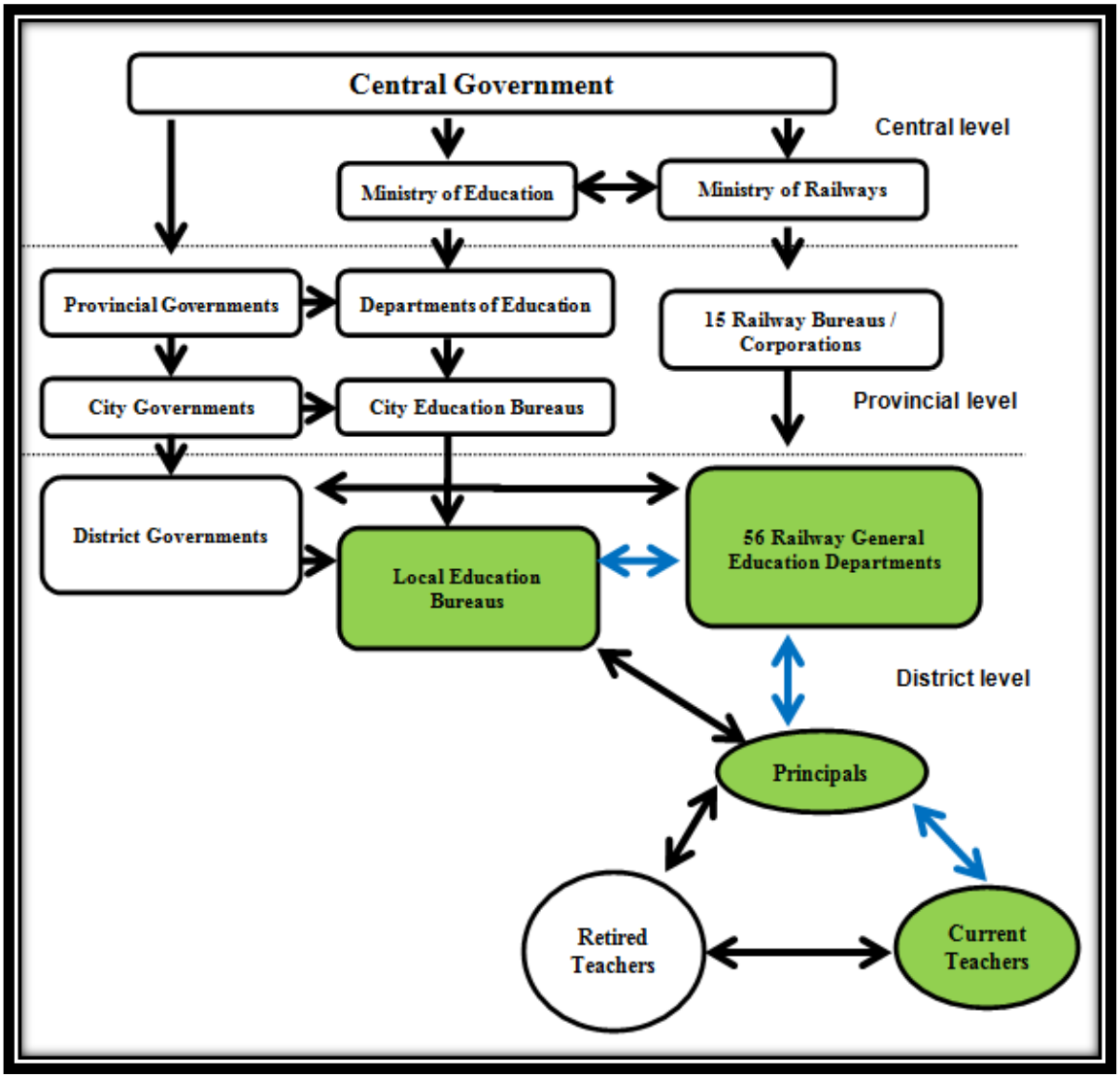
and local education bureaus.

In some districts of Harbin city, on one hand, the local education bureaus were not willing to offer salaries to the teachers which were higher than that of local teachers. On the other hand, these teachers would not accept a salary level lower than before. The Railway General Education Department of Harbin Railway Branch provided extra funding to solve this problem.

At that time, salaries of teachers were different according to the districts' economic situation. Even salaries in two adjacent districts might be different. We use the local teacher's salary in each district as a benchmark. If the salary of railway school teachers was lower than the local school teachers', the Railway [General Education Department] would provide extra money to local education bureaus to match it. Alternatively, if the salary of railway school teachers was higher than the local school teachers', the teachers could keep their original salary level, so the Railway would provide extra money to local education bureaus for three years. They [local education bureaus and railway teachers] both accepted it without saying anything.

(Interview with former senior leader of General Education Department of the Harbin Railway Bureau)

Figure 7.5 Flowchart of solving problem of teachers' salaries



This problem was solved by resource exchange between the railway general education department, the local education bureaus and the railway school teachers. All three parties were satisfied with this arrangement. The local education bureau's concern was the extra funding for different salary between the railway schools and local schools, while the railway general education department's concern was that the teachers should return to the local education bureau. The railway school teachers asked for a higher salary to match that of teachers in local schools or at least wanted to

maintain their current level.

7.3.5 Problem of school funding

School funding was a crucial problem during the transfer period. The local education bureaus had a long bargaining process with the Railway General Education Department of Harbin Railway Branch in order to obtain extra funding for future costs [e.g. for maintenance of properties] of these schools. This was a difficult issue to solve during the transfer period, as there was no successful precedent to follow.

Although our schools returned to the local education bureaus in 2004, we still paid the running cost of the schools (including teacher salaries with yearly adjustment) for three years until 31st December 2007. It took a long time in negotiation. The breakthrough point was that the central government issued an important policy in May 2005 that allowed us to claim the money back from the Ministry of Finance. In our Harbin Railway Bureau, we got back RMB¥ 1 billion after transferring 212 schools to the Ministry of Education and other social services to the relevant government departments. In fact, the Ministry of Railways claimed RMB¥ 9.7 billion in total [Please refer to Figure 7.6].

(Interview with former senior leader of the Railway General Education Department of Harbin Railway Branch)

Figure 7.6 Compensation funds to railway enterprises during transfer of social functions

Railway Bureau Name	Provinces / Autonomous Regions / Municipalities	Compensated Funds (In Million RMB)			
		1st year	2nd year	3rd year	Total
Harbin Bureau	Heilongjiang, Inner Mongolia Autonomous Region	201	367	449	1,017
Shenyang	Jilin, Liaoning, Hebei, Inner Mongolia Autonomous	188	723	715	1,626

Bureau	Region				
Beijing Bureau	Beijing, Tianjin, Hebei, Shanxi	267	483	433	1,183
Hohhot Bureau	Inner Mongolia Autonomous Region	124	118	118	361
Zhengzhou Bureau	Henan, Shaanxi, Hubei	55	157	125	336
Jinan Bureau	Shandong, Jiangsu, Anhui, Henan	53	154	133	341
Shanghai Bureau	Shanghai, Anhui, Zhejiang, Jiangsu	129	204	157	490
Nanchang Bureau	Jiangxi, Fujian	76	105	105	286
Guangzhou Railway Group Corporation	Guangdong, Hunan, Hainan	45	559	558	1,162
Liuzhou Bureau	Guangxi, Zhuang Autonomous Region, Guangdong, Guizhou	44	146	146	335
Chengdu Bureau	Sichuan Province, Guizhou Province, Chongqing Municipality	87	277	260	624
Kunming Bureau	Yunnan	148	115	115	379
Lanzhou Bureau	Gansu, Ningxia Autonomous Region	158	182	182	522
Urumqi Bureau	Xinjiang Autonomous Region	123	248	194	565
Qinghai-Tibet Corporation	Qinghai	42	60	60	162
Railway Direct Department	Beijing Municipal City	15	149	147	311
	Total	1,755	4,048	3,897	9,700

Source: (State Administration of Taxation, 2005)

The senior staff division of Harbin Municipal Board of Education confirmed this arrangement in Harbin, but there was no single principle or method for solving this problem in different provinces, cities and districts in general. All methods involved local factors.

In the "Three year transition period" between 2004 and 2007, the railway enterprises will give 3 years funding support the schools, however, this is different from the proportional model (75%, 50%, 25%) of Shenzhen. Differences are due to local factors.

(Interview with former senior leader of the Railway General Education Department of Harbin Railway Branch)

According to the government document (SASAC-Harbin, 2004), during the three-year transition period (2005-2007) school funding would be shared by SOEs and local governments. In some provinces, SOEs would share total education expenses at the rate of 75% in the first year, 50% in the second and 25% in the third year. In some rich provinces, SOEs were responsible only for 60%, 40% and 20%. After this transition period, the city government and district government shared the funding for SOEs schools in a ratio of 70% : 30% (Interview with senior leader of Harbin SASAC).

In a contract made between the local education bureau and railway enterprise at Shenzhen municipal city, it wrote:

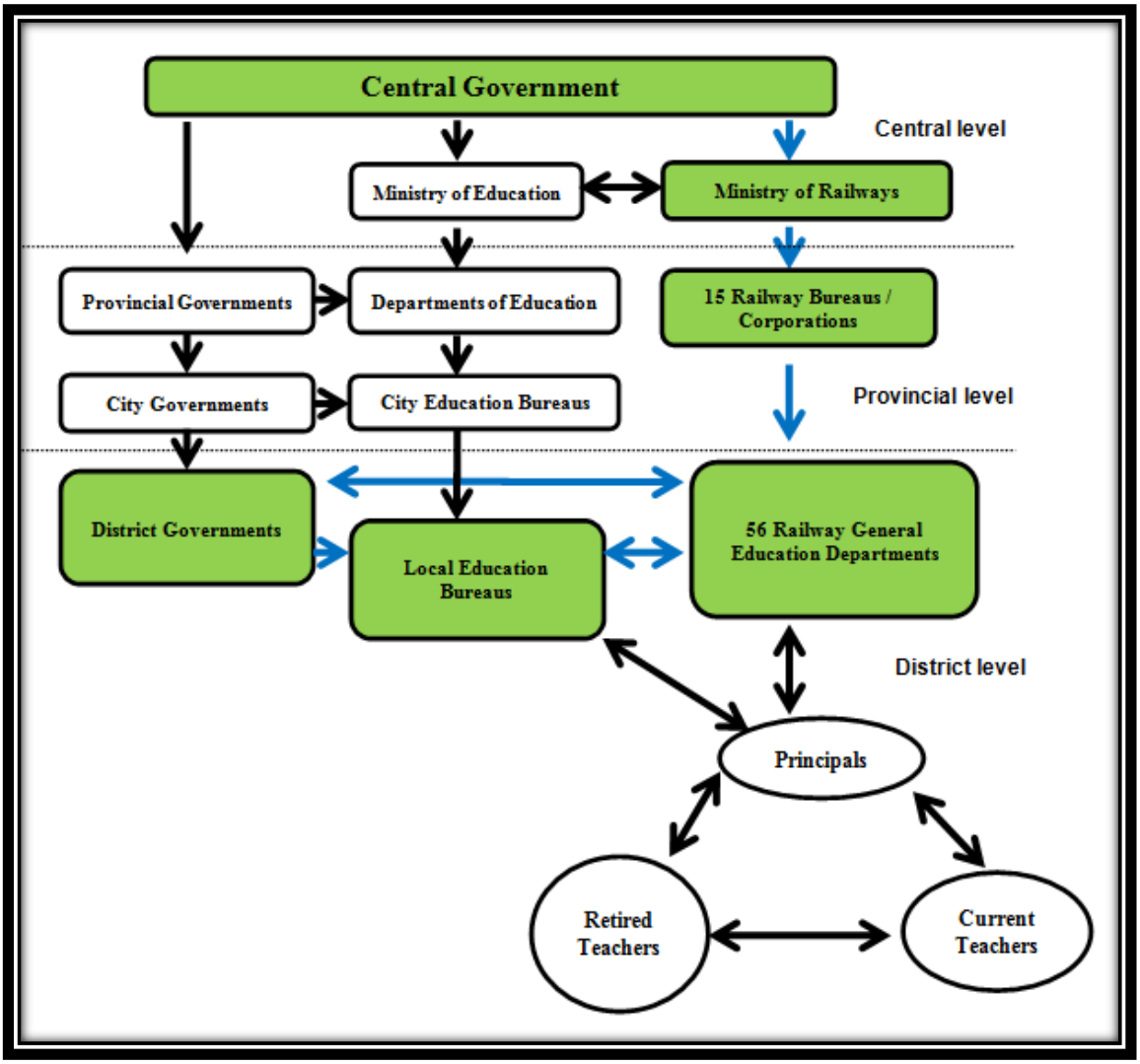
The cost of transferring in the transition period, the Party A [Railway Enterprise] pays RMB¥5.09 million at one time to the local finance bureau in according to audit report of the average yearly spending on the railway secondary and primary schools for last 3 years. It was based on the sharing of 75% [in the first year], 50% [in the second

year] and 25% [in the third year].

In Figure 7.7, railway general education departments contact and discuss with the local education bureaus and district governments for the future funding for the railway schools. After a long and hard negotiation process that ended up with an unsuccessful result, the central government issues a document to allow the railways to claim money back from the central government. This decision flowed from the central government to the Ministry of Railway, then to 15 Railway Bureaus or Corporations and then to 56 railway general education departments at district level. Finally, railway general education departments discuss with district governments and local education bureaus again to make the arrangements based on the new central government document. It is much easier than the previous discussion.

Similar to the solution to the previous problems, the local education bureaus and the Railway General Education Department of Harbin Railway Branch found their ways to communicate with each other through the method of resource exchange. The deadlock problem of school funding was not solved by the actors after a long negotiation, so the central government issued a new policy to allow the Ministry of Railways to claim back compensation from the Ministry of Finance, so the problem was solved. The concern of local education is extra funding for future school development, while the concern of the railway general education department is that schools return to local education bureaus.

Figure 7.7 Flowchart of solving problem of school funding



7.3.6 Problem of school assets

Among the problems generated in the MES, that of school assets was relatively small, because most railways schools had better infrastructure, including hardware and equipment, than the local schools. The local education bureaus did not invest huge resources to restore the schools when they accepted them (Interview with researcher, Junior Secondary Section, Harbin Educational Research Institute). No matter how these schools' assets had been transferred from the Ministry of Railways to the local

governments, they were still held by the central government, which owns all assets under different ministries.

From the central government perspective, assets in the Ministry of Railways and local education bureau are owned by the [central] government. Therefore, when the railway assets were transferred to the local education bureaus, it was as if the assets had been handed over from the left hand to the right hand [of the central government]. There was no ownership problem.

(Interview with senior leader of Harbin SASAC)

However, the local education bureaus and the railway general education departments had different ideas.

About the liquidation of the schools' fixed assets: we appointed professional companies to do a strict audit of school accounts and made sure there was no potential or hidden debt that the schools were bearing. We received and recorded all the school properties (including lands and buildings) based on the day of liquidation. This was to prevent the enterprises from removing them from schools.

(Interview with senior leader of local education bureau at Shenzhen city)

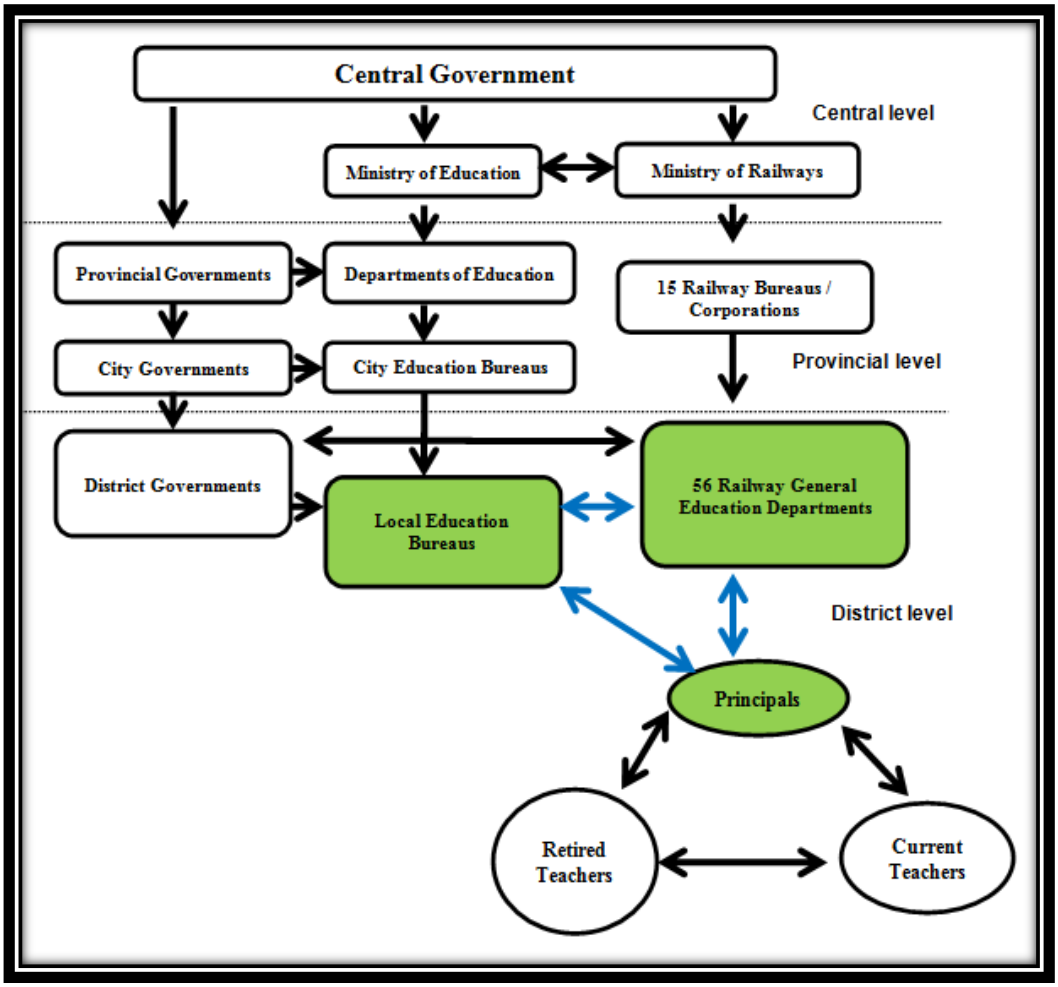
And,

When the local education bureaus were willing to accept our schools, we were requested to perform some specific tasks: … for the school public properties (including trees), we needed to maintain the numbers and these could not be reduced; all school property needed to be recorded clearly and standardised.

(Interview with former principal of railway primary school at Shenzhen city)

Figure 7.8 shows that the negotiation process took place between local education bureaus and railway general education departments and principals of the railway schools. The central government was not concerned about the transfer assets between railway enterprises and local education bureaus since all assets in these entities are owned by it anyway. However, local education bureaus think differently. They preferred to spend some money to appoint professional audit teams to receive these assets and make sure no further debt accompanied these schools. The school principal needed to spend time and effort in fulfil the specific tasks before school returned to the local education bureau. The railway general education departments needed to give out school assets to the local education bureaus.

Figure 7.8 Flowchart of solving problem of school assets



7.3.7 Problem of staff at railway general education departments

Apart from school principals and teachers, the situation of staff at railway general education departments was one of the problems needing to be resolved. These staff included senior management staff (director or deputy directors), accounting staff, school inspectors, administrative staff and school support staff. When schools were returned to local education bureaus, the central government and local education bureau believed that these members of staff at the railway general education departments would not be handed over. They would either be transferred to other departments within railway enterprises or would take early retirement.

The General Education Department of Harbin Railway Bureau was responsible for managing education in railway schools. When the schools were cancelled, this department was closed. Their staff were not teaching staff at schools, so the railway enterprises arranged to transfer them to other departments or units within railway enterprises or allow them to have an earlier retirement.

(Interview with senior leader of Harbin SASAC)

However, the railway general education departments had their own arrangements to tackle this problem:

Most staff in our department had moved to primary and secondary schools voluntarily before 31st December 2003 [the date of the counting the number of teachers and staff who moved from railway schools to the local education bureau], there were only a few people left in our department to continue work for six months to one year to finish remaining tasks.

(Interview with former senior leader of Harbin Railway Branch General Education Department)

This arrangement was confirmed by the researcher of the junior secondary section, Harbin Educational Research Institute. In additional, this researcher mentioned the arrangement of senior staff in this department.

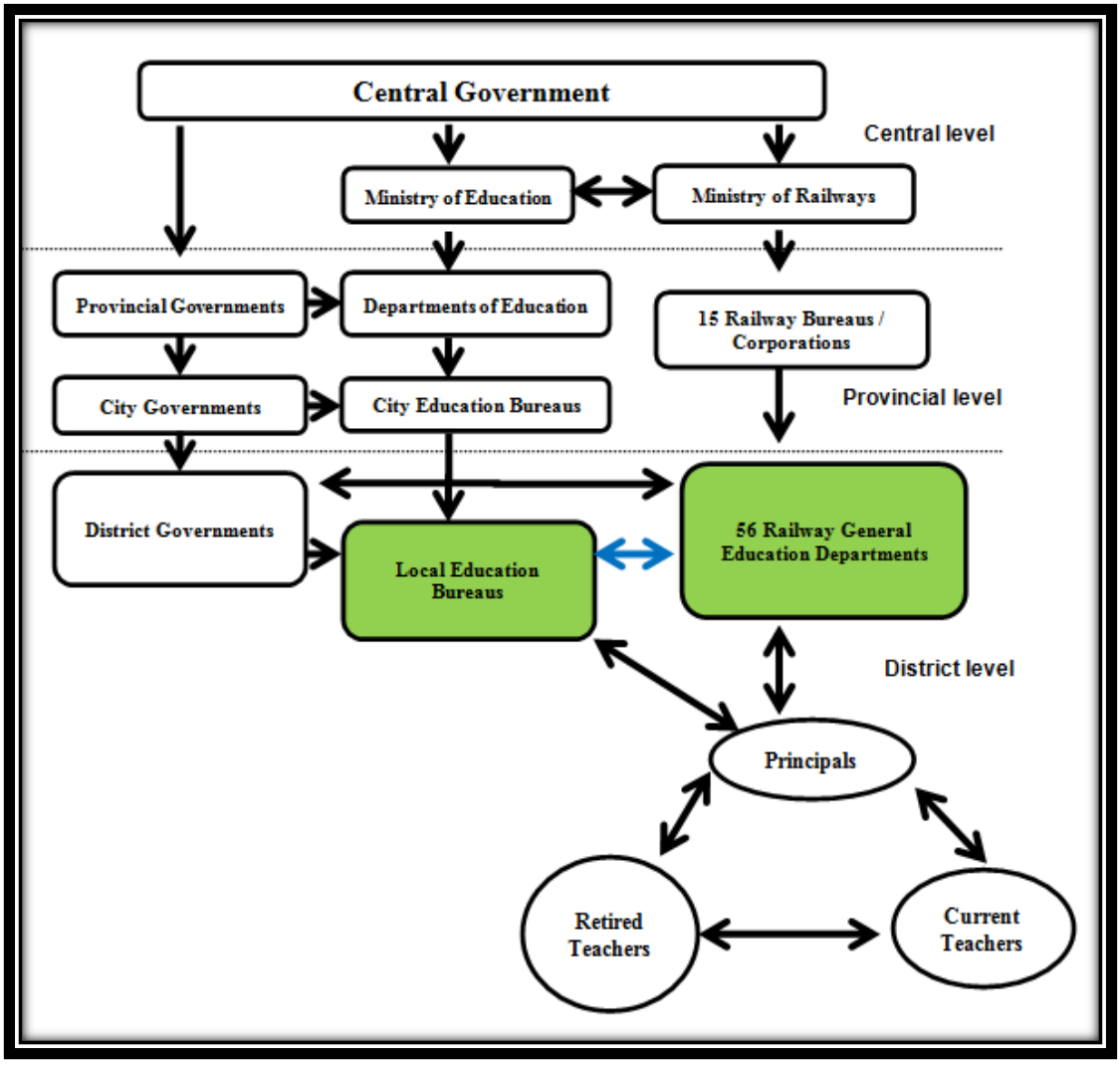
Apart from the staff of the department [the railway general education department] to relocate to other units within the railway enterprises, I knew some staff joined the school before the handover to the local education bureau. On the contract signing date [31st December 2003], there was a detailed arrangement to record and confirm the actual numbers of staff. In principle, only teachers would be accepted because the local education bureau would pay for the future salaries, therefore, the local government had a strict audit about this. Senior management staff, such as the

director of this department, were not accepted into the local education bureau because there were no positions available for them. They could only be relocated to other departments in railway enterprises.

(Interview of researcher of junior secondary section, Harbin Educational Research Institute)

As shown in Figure 7.9, the negotiation process took place between local education bureaus and railway general education departments. Local education bureaus imposed strict controls about staff migrating from railway schools in order to save on future staff costs. However, the railway general education departments allowed staff in their departments to relocate to railway schools and then return to local education bureaus. This may have caused the local education bureaus to spend more money on this problem later on.

Figure 7.9 Flowchart of solving problem of staff at the railway general education departments



7.4 Results of bargaining

As has been shown above, all participating actors worked together to solve seven problems. I now review the level of satisfaction at the results of bargaining. Under network governance theory, the actors within a policy arena can interact with each other by exchanging their own resources to produce better outcomes, in such a way that all the actors are better off. Losers are compensated. The local education bureau in this case, as a disadvantaged actor, was compensated by a substantial sum of

money and properties offered by the railway general education department in an exchange related to excess teachers and retired teachers. This matches with the claim of (Torfing, Sørensen, & Fotel, 2009) that "the network actors must be prepared to respond positively to constructive proposals, to make concessions, or at least to compensate the losers" (p.291).

Network governance provided an alternative approach to solve the community problems. Each actor in this policy area was satisfied with these compromises:

State-owned Assets Supervision and Administration Commission for the State Council

The results were satisfactory. We successfully received all [112] SOE schools to local education bureaus. We organised a lot of working meetings to make sure the progress was smooth. School principals and teachers were very pleased with the result because they had a lower salary (only RMB¥ 1,000) in SOE schools, but now have RMB¥3,000[after transfer]. The implementation of this policy was open to the public, everyone could monitor it.

(Interview with senior leader of Harbin SASAC)

Local Education Bureau

We were satisfied with the results because of three reasons: 1. The district director was happy with RMB¥20 million compensation; 2. we conducted a good transfer of assets and staff from railway schools; and 3. We have solved these problems completely and maintained social stability.

(Interview with senior leader of local education bureau at Shenzhen municipal city)

The General Education Departments of Railway Bureaus

We are happy with the results because the transition was smooth and three-year future education funding was guaranteed to railway schools.

(Interview with former senior leader of general education department of the Harbin Railway Bureau)

Our department is delighted to see these results, because our goals have been achieved and the schools have been returned to the local education bureau within our scheduled timeframe.

(Interview with former senior leader of general education department of the Guangzhou Railway Group)

Railway SOE School Principals

We are very happy because all these things have been properly resolved and we then had a transfer successfully. Since 1st January 2007, current teachers have received their salary from the local education bureau and retired teachers have received a social security pension from local governments. Everyone was satisfied: leaders, teachers and general public.

(Interview with former principal of railway primary school at Shenzhen municipal city)

The goals were reached and the results were satisfactory. At least retired teachers could be transferred.

(Interview with vice principal of former railway school at Shenzhen municipal city)

Railway SOE School Teachers (Current)

The arrangements are satisfactory, principals and railway enterprise leaders made a huge effort, especially in the transfer period. The government policies were there, but the details could still be discussed. The process entailed negotiation and bargaining. We hoped to remove this burden, and the schools were striving to maximise our own benefits, including the transfer of every single teacher [retired and current] to the local education bureau. Every teacher wanted this too. The general direction [of removing schools from the railway] was correct. The policy was top-down, and the detailed discussion took place within a district. The number of railway schools at Shenzhen was relatively few, so the problem was easier to resolve. Trust is very important to principals. They negotiated on behalf of teachers with the local education bureau. The results have achieved our expectations.

(Interview with teacher of railway secondary school at Shenzhen municipal city)

As for current teachers, there was a small number of railway schools in Shenzhen in the past, but now that they are happy to return to this big family, we have more than 100 schools. They now have comprehensive training and communication with us and the teachers have more opportunities.

(Interview with senior leader of local education bureau at Shenzhen city)

Railway SOE School Teachers (Retired)

The retired teachers were very happy with the result. In past years, the remuneration packages to teachers [current and retired] have been substantially increased, we didn't receive any complaints and dissatisfaction from them since schools were returned to us.

(Interview with senior leader of local education bureau at Shenzhen city)

The biggest beneficiaries are staff, especially retired teachers. Their pension was from RMB¥1,000 to RMB¥2,000 or even RMB¥2,900.

(Interview with former senior leader of general education department of the

Harbin Railway Bureau)

Retired teachers are most pleased in this event [school transfer to local education bureau] because their retirement income will follow that of local schools to have a significant increase.

(Interview with former principal of Harbin Railway School)

Actors in network governance are encouraged to reflect upon and revise their values and beliefs during the bargaining processes (Koppenjan, 2007). Networks provide an institutional setting in which, for example, actors can persuade one another of the need to revise their behaviour in order to achieve greater coordination. Railway General Education Departments and the local education bureaus frequently adjusted their strategies to respond in negotiations. Retired teachers linked with external actors (councillors at various levels of governments and public media) to increase their bargaining powers in the process of negotiating agreements. The final win-win results of this kind of network negotiation in the case of railway state-owned enterprise schools were appreciated and accepted by all actors.

The Chinese term *Mohe* or 'grinding process' can be revisited in this example of accommodating each other and working in harmony (Xia, 2000, p. 194). In this study, the demands of each actor were accommodated after long negotiation. It important that *Mohe* 'does not grind an entity apart' (Xia, 2000, p. 194). We did not discover that the power of the central government had been 'hollowed-out', but actors traded their resources to achieve a win-win result.

7.5 Summary and commentary

This chapter reported on an alternative approach to implement a Chinese education policy. This policy requested schools to detach from the State-owned Enterprises to the Ministry of Education under the Modern Enterprises System, through the transaction of differentially valued resources owned by key actors. The negotiation of win-win outcomes has significant impact on the Chinese policy making process. The demands of individual actors in a policy arena were accommodated and each actor was happy with the result. This matches with the idea of *Mohe*, a Chinese term for network governance.

In the cases of railway schools located in Shenzhen and Harbin, we have seen that the same problem in different cities was able to be solved by particular solutions with local characteristics through the exchange of resources. In fact, governance of public policy in the Chinese administrative system has entered a new phase, from the central hierarchy top-down approach to the approach of central steering with local diversities. The central government had a core policy objective, and the local governments were able to achieve it by their own means with local characteristics.

Chapter Eight

Governing Public Education Reform in China

8.1 Introduction

Reform to public education is a challenging task and an ongoing process in each country. Views on the best mode of governance guiding public education reform is always contested issue. This thesis focuses on an examination of a network mode of governance as a particular approach taken in public education reform in China. It focuses on the kind of resources that are transacted between key actors associated within state-owned enterprise schools to solve social problems.

Overall, the study argues that public education reform in the West and East have gone through similar trajectories in modes of governance. It confirms the contribution of network governance to processes of policy implementation in China where the process of resource transaction allows different parties to negotiate resources that they each value in different ways so that agreements can be reached. The study concludes that network governance is a useful concept for understanding public education reform in West and East.

The structure of this chapter is as follows: Section 8.2 summarises the research process while section 8.3 highlights the associated contribution the study makes to network governance theory. Section 8.4 discusses the limitation of the study. Section 8.5 identifies future research directions relating to Chinese education reform using network governance theory. Section 8.6 concludes by emphasising the value of this

study.

8.2 The Research Process: Summary

8.2.1 The study establishes that public education reform in West and East entail similar trajectories in modes of governing.

In Chapter two, I examine the trajectories of changing governance in public education reform in Western and Chinese contexts by drawing on scholarly literature and education acts or laws in the United States, United Kingdom, Australia, New Zealand and China. I divided them into four main periods: establishing public education, moving to a centralised system, shifting to a decentralised system and transitioning to a networked system. Such stages are not sharply demarcated in each country but dominant patterns of educational governance with particular forms of school provision persist, even when the system shifts towards a new model. Chinese education shares some similarity with governance patterns in Western countries in that it shifted from hierarchy to market, yet it shows a different trajectory from that of the West because Chinese society has undergone tumultuous changes in its socio-economic, political and cultural realms.

The idea of public education was developed in Western countries from the late sixteenth century and in China from the Han dynasty (206 B.C. – 220AD). The formal settings of public education were established in the late eighteenth and early nineteenth centuries for Western children. In China, the traditional way of education was abandoned and replaced by new educational models, drawn from Europe, America and Japan when the Qing dynasty was overthrown by revolution and a republican form

of government was established in 1911.

However, public education did not have central government support until the establishment of the Peoples Republic of China in 1949. Since then, the Chinese government has built a national system of education. This centralised system has involved taking over all private schools and schools previously controlled by the Nationalist Party, generalisation of Putonghua (a common language), building a stable and qualified teaching force, expanding educational access in primary schools, improving the quality of schools and developing and revising school curriculum to align to a politics and ideology based on Marxism and Leninism. In the meantime, public schools in Western countries had also adopted a centralised system. A central administrative board of education is associated with local boards to control all aspects of education, including the curriculum, finance, student enrolment and teacher recruitment.

In the 1980s, shortly after the worldwide recession, central governments in Western countries introduced some major policy initiatives in education which drove decentralisation of administrative bodies and transferred decision making processes to lower levels of government and privatised schooling (Daun, 2004). The main reasons for calling on these market-based solutions to reform education was to reduce public expenditure (Zajda, 2004), cater to market demands (Kwong, 2000) and emphasise effectiveness and efficiency of delivery (Walsh, 1995). Government education policy shifted from a centralised to a decentralised system and a market focus. In the same period of time, education governance in the Chinese socialist market economy began in 1978, when Deng Xiaoping introduced his program of "Socialism with Chinese

characteristics". A flourishing market economy and a policy of decentralisation deeply influenced China's educational development. The change of the role of the Chinese state in regulation, financing and provision of educational services indicates that China's educational development has undergone a similar process of marketisation although the experience in China is different from that in Western countries (Kwong, 1996; Tsang, 1996; X. Wu, 2008).

Since the 1990s, social partnerships, collaboration and networking mark a new phase in education reform that again shifted educational policy and resource settings. The mode of governance in education transitioned from centralised and bureaucratic government to governance in and through networks (Ball, 2008). A network mode of governance which involves multiple agencies or stakeholders in decision making has been identified as a way to improve public schools (Liebman & Sabel, 2003). It is a new form of participatory collaboration between citizens and the agencies of government. In the West, education policy discourse moved from a position of individualised school improvement through competition to one where there is an emphasis on 'partnership' and 'collaboration' as key mechanisms for improvement (Evans et al., 2005). Shared goals are achieved when social and private actors (community groups, education and training providers, and industry members) participate in education policy development (Seddon, Billett, et al., 2005).

The network mode of coordination in Chinese education has had less research attention paid to it. Mok (2001) has examined shifts from a "state control model" to a "state supervision model" in Chinese higher education and Law and Pan (2009) have applied game theory to examine private education legislation in China. This thesis fills

a gap by examining state-owned enterprise schools which were requested to disconnect from State-owned Enterprise (SOEs) to the Ministry of Education (MOE) under the Modern Enterprise System (MES). In this case study, I argue that the mode of Chinese governance in education is moving away from a highly centralised system and is, in practice, realised through the coordination of actors, resource exchanges, decision-making processes and stakeholder motivations in collective decision making.

8.2.2 The study argues that network governance contributes to processes of policy implementation in China.

In Chapter three, I introduced governance as a key concept in this thesis and presented an overview of the trajectory of governance. I argue that the literature presents governance as a non-hierarchical mode of governance, where non-state actors participate in the formulation and implementation of public policy. Rhodes (1997) used a network governance model to postulate that these actors depend on each other for resources and, therefore, enter exchange relationships to secure relevant resources in ways that build collective capabilities. In other words, the concept of governance helps to explain why actors deploy resources in ways that support other actors and mobilise their resources in the network to achieve their goals.

It is important to explore Chinese governance approaches when network governance theory is increasing in popularity and a growing number of specialists in public policy see the value of network theory for explaining progress and stalemates in decision-making processes in China. Apart from the education sector, academic scholars have identified various Chinese public policy processes which use network governance. These processes have been studied in relation to reform of taxation in

rural areas (Tang, 2004), politics in provincial legislatures (Xia, 2008), housing and estate policy (J. W. Zhang & Lou, 2007; Y. Zhu, 2008) and public health insurance reform (H. Zheng et al., 2010). Ren (2005) claims that network governance theory offers a potentially significant approach to governance in China because the development of civil society and interest groups will be strengthened as a result of both government and market failure in China.

Rhodes and other network governance theorists identify networks as a third mode of governance coordination and a significant alternative to both markets and hierarchy. They acknowledge that the idea of a sovereign state governing society top-down through laws, rules and detailed regulations has lost its grip and is being replaced by new ideas about decentred governance based on interdependence, negotiation and trust (Sørensen & Torfing, 2005). Seddon (2002) states that the network is not separate and independent from hierarchy or markets as it can operate within hierarchy and markets (Thompson et al., 1991). Ball (2008) shares the same idea of network as "a form of governance that interweaves and interrelates markets and hierarchies" (p. 749). The evidence suggests that state control and political steering capacity is not significantly weakened or loosened in the negotiations between social actors in a policy network. Yet governance through networks is an effective way of solving community problems collectively. As China is a centrally administrated nation, network governance theory contributes the use of 'governance' as a broader term than 'government', with services provided by permutation of government, private and voluntary sectors.

8.2.3 The study establishes that the process of resource transactions allows different parties to negotiate resources that they each value in different ways, which facilitates the work of coming to agreement about governing.

In the recent Chinese education reform, the most common and direct method is to use the administrative force of governments to solve problems. This thesis examined an alternative approach to focus on the kind of resources that are transacted between key actors associated with the SOE schools in the process of policy implementation.

Under the modern enterprise system, SOE schools were requested to detach from SOEs to local education bureaus. This process involved many government departments, agencies and individuals as participating actors. It was found that actors have their goals and perceptions guiding them to conduct rational choices by exchanging resources along with developing strategies to overcome seven problems. Each actor valued different resources, which could be traded with other actors to reach their collective goals. For example, the general education departments of the railway bureaus requested that local education bureaus accept excess teachers and retired teachers by giving them additional money and properties; principals expended huge physical effort on unpleasant visits to a number of government departments to arrange that unqualified teachers return to local education bureaus; retired teachers extended effort and time to fight for a higher pension and their own teacher identity, if they were to be accepted by local education bureaus; the Ministry of Railways claimed compensation from the Ministry of Finance when the local education bureaus asked for three years of future funding for schools.

This case study shows that network governance permits the exchange of

resources that are differentially valued by different actors, which allows for the negotiation of win-win outcomes by transacting differently valued 'goods' in the process of negotiating agreements about governing. The final result of this networked negotiation in the case of a railway SOE schools was found to be satisfactory and accepted by all actors. All actors perceived they were better off. Local education bureaus seemed the only disadvantaged actors in this matter, however, they were compensated by money and properties. This matches with the claim of Torfing et al. (2009) that 'network actors must be prepared to respond positively to constructive proposals, to make concessions, or at least to compensate the losers' (p.291).

8.2.4 The study identifies that network governance is a useful concept for understanding public education reform in West and East.

Nowadays, education governance is shifting from centralised and bureaucratic government to governance in and through networks (Ball, 2008), involving multi-agency partnership, a blurring of responsibilities between public and non-public sectors, a power dependence between organisations involved in collective action, the emergence of self-governing networks and the development of new governmental tasks and tools (Kickert, Klijn, & Koppenjan, 1997). This new and important tool considers the voices of stakeholders in policy making and implementation. In other word, traditional government steering is not an appropriate way to provide a result with consideration of the stakeholders, although the decision can be made in the quickest way. Network governance in education provides a way to input educational resources in better places and solve social problems through 'multi-section collaboration' (Blockson & Van Buren, 1999, p. 64).

Governing by networks in education has been documented in the United States (Liebman & Sabel, 2003), Australia (Seddon, 2002, 2006; Seddon, Billett, et al., 2005), United Kingdom (Ball, 2008, 2009c; Ball & Junemann, 2011), Europe (Lawn, 2007; Lawn & Grek, 2012) and China (P. W. K. Chan, 2011, 2012; P. W. K. Chan & Seddon, 2012; Law & Pan, 2009; Mok, 2001). Scholars in public administration or politics have proposed that in a network situation, a single central authority, a hierarchical ordering and a single organizational goal do not exist (Kickert et al., 1997). However, this is not accurate in education where network governance does not give up the state's capacity to steer policy, nor is it a "hollowing-out" of the state. Rather, it is a new modality of state power, agency and social action (Ball, 2009a).

8.3 Contribution to Network Governance Theory

This study examines state-owned enterprises school in Chinese policy implementation in the light of network governance theory based on Rhodes (1997) definition of "self-organising, inter-organisational networks characterised by interdependence, resource exchange, rules of the game and significant autonomy from the state" (p. 15).

Network governance theory in Western policy sciences is generally useful and fruitful for understanding policy process in China. However, some ideas, like Rhodes's 'hollowed-out state' (1994) and 'significant autonomy from the state' (1997) may not be applicable in China, as the role of the Chinese Communist Party is still dominant in policy making. It is still highly resourced and has a range of powers with which to retain influence over public sector agencies.

This study refers to a Chinese term *Mohe* in order to dialogue with Western literature on network governance in establishing and implementing new public policies. It offers an Eastern perspective on research in Asian countries with consideration of the local diversities of cultures, political aspects and social problems, which reflect fundamentally different political and cultural values to those of the West. *Mohe* does not involve 'hollowing-out' the state; its aim is cooperation with competition between actors through negotiations; potential problems are turned into a 'win-win' situation and achievement of their collective goals. *Mohe* is generally a useful and fruitful concept for understanding the policy process in China. It has the potential to provide a framework to analyze the policy making process in the West, especially for countries in which state power is still in place and cannot be excluded.

8.4 Limitations

There were limitations in this study. First, this study involves policy implementation in schools, which were disconnected from State-owned Enterprises and transferred to the Ministry of Education. Interviews were conducted with senior government officials, who were responsible for this area. Since these officials are very busy and unlikely to make themselves available for further interview and contact, the preparation of the first interviews had to be thoughtful and well-prepared.

Second, government policy documents have begun to appear on Chinese government websites but their quantity is still limited. In addition, the Internet connection bandwidth between Australia and China is narrow, so time is required to access the Chinese government website from abroad.

Third, the data collection was undertaken in Shenzhen and Harbin. While it was easy for me to revisit Shenzhen, which is located next to Hong Kong, Harbin is over 2,800 Kilometres from Hong Kong. It was not easy to arrange the trip under the constraints of distance and costing.

8.5 Future research directions

The application of network governance theory in public education reform is under-researched. There has been very little done to date on the network mode of governance in Chinese public education. Two possible future research directions are recommended:

First, more research can focus on the SOE schools based on industries other than the railways. This project may be the first study to apply this theory to State-owned Enterprise schools, but it only focuses on railway enterprises, admittedly one of the biggest industries. Railways owned more than 1,200 schools or institutions nation-wide, built along railway lines. In fact, there have been many different kinds of SOEs which have run a lot of schools for the children of their employees. These include aerospace, agriculture, aviation, engineering, filming, investment and management, iron and steel, nuclear, motor, petroleum, petrochemical, power, mining and shipbuilding enterprises. Under the Modern Enterprise Systems, most of their schools were transferred to local education bureaus before 2007. It is now a good time to document this change. When I interviewed senior officials in Harbin Municipal Board of Education, I was told that schools under the Farms Agribusiness Group Company in the northern part of Heilongjiang province, close to the Russian broader, had not yet been

transferred, since these schools are much better than local schools in terms of quality of education and school funding. It is important to document in future an overview of the diverse kinds of SOE education that have existed in China.

Second, more research could focus on different school types and levels in China. In Chapter six, I mentioned that there are three main school types in China, namely, public school, private (*sili*) school and community (*minban*) school. There is a large area of educational territory that has not been researched. How does network governance in Chinese Education evolve and enlarge the range of public, private and voluntary actors in shaping and delivering educational policy or solving their community's problems? There are very few papers which attempt to answer this important question.

8.6 Conclusion

Since the 1950s, state-owned enterprises have run a wide range of successful schools in China for more than half century. They shared responsibility for the provision of education with the central government. Under the Modern Enterprise System, state-owned enterprises reduced their social burden and refocused on their core business. Schools were requested to detach from SOEs and then be transferred to the Ministry of Education.

The value of this research is that it applies network governance theory to argue that networks in Chinese education reform function as multi-organisational arrangements for solving problems that cannot be achieved, or easily accomplished, by one single organisation. This research provides an example of how the interdependent but operationally autonomous actors within a policy arena can interact with each other

by exchanging their own resources to produce better outcomes, and where all the actors are better off. Losers are compensated (Sørensen & Torfing, 2007b). Modern states increasingly rely on the cooperation of stakeholders to mobilise fragmented resources in ways that realise favourable outcomes. Network governance coordinates such collective efforts by building stable and interactive relationships between stakeholders. It is an emerging form of governance that reflects a changed relationship between state and society (Partick Kenis & Volker Schneider, 1991).

Policy network theory can be applied in Chinese public policies, such as reform in taxation, provincial politics legislatures, housing and real estate, and public health insurance reform. Governance of public policy in the Chinese administrative system has entered a new phase, from a central hierarchical approach to the approach of central steering with local diversity. The central government drove their core policy objective, and the local governments were able to achieve it by their own means in ways that reflected local characteristics.

Bibliography

Acharya, A., & Buzan, B. (2007). Why is there no non-Western international relations theory? An introduction. [10.1093/irap/lcm012]. *International Relations of the Asia-Pacific, 7*(3), 287-312.

Adnett, N., & Davies, P. (2002). *Markets for Schooling an Economic Analysis*. London ; New York: Routledge.

AEC. (1998). *Almanac of China's Economy*: Almanac of China's Economy Publishing House.

Angus, M. (1997). The integration of the public and private schooling sectors in Australia. In B. Lingard & P. H. Porter (Eds.), *A National approach to schooling in Australia? : essays on the development of national policies in schools education* (pp. 140-161). Canberra: Australian College of Education.

Bai, X., & Bennington, L. (2007). Modern Enterprise System and the Role of the Party and Government in Chinese SOEs. *International Journal of Business and Systems Research, 1*(3), 354-366.

Ball, S. J. (1990). *Politics and Policy Making in Education: Explorations in Policy Sociology*. London ; New York: Routledge.

Ball, S. J. (1993). Education Markets, Choice and Social Class: The Market as a Class Strategy in the UK and the USA. *British Journal of Sociology of Education, 14*(1), 3-19.

Ball, S. J. (1994). *Education Reform : A Critical and Post-structural Approach*. Buckingham [England] ; Philadelphia: Open University Press.

Ball, S. J. (2008). New Philanthropy, New Networks and New Governance in Education. *Political Studies, 56*(4), 747-765.

Ball, S. J. (2009a). Academies in Context: Politics, Business and Philanthropy and Heterarchical Governance. *Management in Education, 23*(3), 100-103. doi: 10.1177/0892020609105801

Ball, S. J. (2009b). Beyond Networks? A Brief Response to 'Which Networks Matter in Education Governance?'. *Political Studies, 57*(3), 688-691.

Ball, S. J. (2009c). Privatising Education, Privatising Education Policy, Privatising Educational Research: Network Governance and the 'Competition State'. *Journal of Education Policy, 24*(1), 83-99. doi: 10.1080/02680930802419474

Ball, S. J., & Junemann, C. (2011). Education Policy and Philanthropy - The Changing Landscape of English Educational Governance. *International Journal of Public Administration, 34*(10), 646-661.

Barger, R. (2004). History of American Education Web Project Retrieved May 1, 2009, from http://www.nd.edu/~rbarger/www7/masslaws.html

Bassey, M. (1981). Pedagogic Research: On the Relative Merits of Search for Generalisation and Study of Single Events. *Oxford Review of Education, 7*(1), 73-94.

Bell, J. (2005). *Doing your Research Project : A Guide for First-time Researchers in Education, Health and Social Science* (4th ed.). Maidenhead, England ; New York: Open University Press.

Bentley, A. F. (1967). *The Process of Government*. Cambridge,: Belknap Press of Harvard University Press.

Blair, T. (1998). *The Third Way : New Politics for the New Century*. London: Fabian Society.

Blockson, L. C., & Van Buren, H. J. (1999). Strategic Alliances among Different

Institutions: An Argument for Multi-Sector Collaboration in Addressing Societal Issues. *Crossing the Borders: Collaboration and Competition Among Non-profits, Business and Government*. Washington, DC: Independent Sector Working Papers.

Bohnet, A., Hong, Z., & Müller, F. (1993). China's Open-door Policy and its Significance for Transformation of the Economic System. *Intereconomics, 28*(4), 191-197. doi: 10.1007/bf02926200

Bonner, C., & Caro, J. (2007). *The Stupid Country : How Australia is Dismantling Its Public Education System*. Sydney, N.S.W.: University of New South Wales Press Ltd.

Bray, M., & Qin, G. (2001). Comparative Education in Greater China: Contexts, Characteristics, Contrasts and Contributions. *Comparative Education, 37*(4), 451-473.

Broadman, H. G. (1995). *Policy Options for Reform of Chinese State-owned Enterprises*. Washington, D.C.: The World Bank.

Brown, M. (2009). Families prepare to make ABC change Retrieved January 20, 2009, from http://www.smh.com.au/articles/2009/01/12/1231608616285.html?feed=fairfaxdigitalxml

Bryman, A. (2008). *Social Research Methods* (3rd ed.). Oxford: Oxford University Press.

Cai, X., & Zhao, H. (2009). Policy Network: A Perspective of Innovative Public Policy *Journal of Yunnan Administration Institute*(3), 76-79.

Caldwell, B., & Keating, J. (2004). Adding Value to Public Education: An Examination of the Possibilities for Public Private Partnership: The Australian Council of Deans of Education Incorporated.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin, 56*(2), 81-105. doi: 10.1037/h0046016

Carnoy, M. (1993). School Improvement: Is Privatization the Answer. In J. Hannaway & M. Carnoy (Eds.), *Decentralization and School Improvement*. San Fancisco: Jossey-Bass.

CEFSY. (1994). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (1996). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2002). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2003). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2004). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2005). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2007). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

CEFSY. (2008). *China Educational Finance Statistical Yearbook.* Beijing: China Statistics Press.

Chai, J. C. H. (1997). *China: Transition to a Market Economy*. Oxford, UK: Oxford University Press.

Chan, D., & Mok, K. H. (2001). Educational Reforms and Coping Strategies under the Tidal Wave of Marketisation: A Comparative Study of Hong Kong and the Mainland. *Comparative Education, 37*(1), 21-41.

Chan, P. W. K. (2000). *'Strategies for the Reform of State-owned Enterprises in China, 1978-1999'*. (Master of Economics (Social Sciences) Master Thesis), The University of Sydney, Sydney.

Chan, P. W. K. (2011). *Network Governance in Chinese Educational Policy: the Case of Harbin State-owned Enterprise Schools*. Paper presented at the Australian Association for Research in Education Conference 2011, Hobart. http://www.aare.edu.au/11pap/papers_pdf/aarefinal00215.pdf

Chan, P. W. K. (2012). The New Governance in Chinese Public Education Reform: A Case of a Railway Enterprise-run School. In P. W. K. Chan (Ed.), *Asia Pacific Education: Diversity, Challenges and Changes* (pp. 185-205). Clayton: Australia: Monash University Publishing.

Chan, P. W. K., & Pardy, J. (2012). Introduction - Changing Perspectives in Asia Pacific Education Research. In P. W. K. Chan (Ed.), *Asia Pacific Education: Diversity, Challenges and Changes* (pp. 1-4). Clayton: Australia: Monash University Publishing.

Chan, P. W. K., & Seddon, T. (2012). Network Governance in Education: The Case of Chinese State-owned Enterprise School. *The International Journal of Continuing Education and Lifelong Learning, 4*(2), 117-136.

Chan, P. W. K., Zhang, H., & Kenway, J. (In press). Introduction: Struggles to Construct New Research Imaginations in Response to Chen's Challenges. In H. Zhang, P. W. K. Chan & J. Kenway (Eds.), *Asia as Method in Education Studies: A Defiant Research Imagination*. United Kingdom: Routledge.

Chan, R., & Wang, Y. (2009). Controlled Decentralization: Minban Education Reform in China. *Journal of Comparative Social Welfare, 25*(1), 27-36.

Chen, K.-H. (2010). *Asia as Method: Toward Deimperialization*. Durham [NC] ; London: Duke University Press.

Chen, K.-H. (2012). Takeuchi Yoshimi's 1960 'Asia as Method' lecture. *Inter-Asia Cultural Studies, 13*(2), 317-324. doi: 10.1080/14649373.2012.662937

Cheng, K. M. (1994a). The Changing Legitimacy in a Decentralizing System: The State and Education Development in China. *International Journal of Educational Development, 14*(3), 265-269.

Cheng, K. M. (1994b). Issues in Decentralizing Education: What the Reform in China Tells. *International Journal of Educational Research, 21*(8), 799-808.

Cheng, S. (2010). An Analysis of Political Participation of Minorities from a Policy Network Perspective: Dilemma and Solutions. *Journal of Neijiang Normal University, 25*(7), 49-51.

Chiu, B., & Lewis, M. (2006). *Reforming China's State-owned Enterprises and Banks*. Northampton, Massachusetts: Edward Elgar Publishing.

Chubb, J. E., & Moe, T. M. (1988). Politics, Markets, and the Organization of Schools. *The American Political Science Review, 82*(4), 1066-1087.

Chubb, J. E., & Moe, T. M. (1992). *A Lesson in School Reform from Great Britain*. Washington, D.C.: Brookings Institution.

Commission on Global Governance. (1995). *Our Global Neighbourhood: The Report of the Commission on Global Governance*. Oxford ; New York: Oxford University Press.

Comte, A., & Gertrude, L. (1998). *Auguste Comte and positivism: the essential writings*. New Jersey: Transaction Publishers.

Cong, Y. F. (2004). Where is the "Way" for State-owned Enterprise School, Begining from Seperation of Railway Enterprise-run School. *Exploring Education Development, 4*.

Considine, M., & Lewis, J. M. (2003). Bureaucracy, Network, or Enterprise? Comparing Models of Governance in Australia, Britain, the Netherlands, and New Zealand. *Public Administration Review, 63*(2), 131-140. doi: 10.1111/1540-6210.00274

Cooper, B. (1988). School Reform in the 1980s: The New Right. *Educational Administration Quarterly, 24*(3), 282-298.

Cova, B., Prévot, F., & Spencer, R. (2010). Navigating between dyads and networks. *Industrial Marketing Management, 39*(6), 879-886. doi: http://dx.doi.org/10.1016/j.indmarman.2010.06.007

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research* (2nd ed.). Los Angeles: SAGE Publications.

Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspectives in the Research Process*. St Leonards, NSW: Allen & Unwin.

Crump, S., & Slee, R. (2005). Robbing public to pay private? Two cases of refinancing education infrastructure in Australia. *Journal of Education Policy, 20*(2), 243-258. doi: 10.1080/0268093052000341430

CSY. (1994). *China Statistical Yearbook*. Beijing: China Statistical Publication House.

CSY. (1999). *China Statistical Yearbook*. Beijing: China Statistical Publication House.

CSY. (2010). *China Statistical Yearbook*. Beijing: China Statistical Publication House.

Daun, H. (2004). Privatisation, Decentralisation and Governance in Education in the Czech Republic, England, France, Germany and Sweden. *International Review of Education, 50*(3/4), 325-346.

Davis, K. A. (1995). Qualitative Theory and Methods in Applied Linguistics Research. *TESOL Quarterly, 29*(3), 427-453.

Deleyne, J. (1973). *The Chinese economy*. New York,: Harper & Row Publishers.

Denzin, N. K. (1989). *The Research Act : A Theoretical Introduction to Sociological Methods* (3rd ed.). Englewood Cliffs, N.J.: Prentice Hall.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the Field of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1-17). Thousand Oaks: Sage Publications.

Department for Employment and Education. (1997). *Excellence in schools* London: Her Majesty's Stationery Office.

Ding, M. (2009). Anti-commons Tragedy: Analysis of the Policy implementation Network Dilemma. *Theoretical Investigation*(2), 145-148.

Ebbeck, M., & Gao, W. Z. (1996). The Importance of Pre-school Education in The People's Republic of China. *International Journal of Early Years Education, 4*(1), 27-34. doi: 10.1080/0966976960040102

Elman, B. A. (2000). *A Cultural History of Civil Examinations in Late Imperial China*. Los Angeles, California: University of California Press.

Epstein, JoyceÂ L. (2005). A Case Study of the Partnership Schools Comprehensive School Reform (CSR) Model. *The Elementary School Journal, 106*(2), 151-170.

Ericson, R. (1991). The Classical Soviet-Type Economy: Nature of the System and Implications for Reform. *Journal of Economic Perspectives, 5*(4), 11-27.

Evans, J., Castle, F., Cooper, D., Glatter, R., & Woods, P. A. (2005). Collaboration: The Big New Idea for School Improvement? *Journal of Education Policy, 20*(2), 223-235.

Fan, Y. (2000). Ideas of Way-out for State-owned Enterprise Schools *Inner Mongolia*

Education(12), 12-13.
Fan, Y. (2002). Questioning Guanxi: Definition, Classification and Implications. *International Business Review, 11*(5), 543-561. doi: http://dx.doi.org/10.1016/S0969-5931(02)00036-7
Fan, Y., & Wu, Z. (2012). The Evolution of the Relationship between Government and School in Educational Transformation since the Founding of PRC. *Modern Education Management*(1), 29-35.
Fang, L. (2002). The Implementation of Shareholding Cooperative System in State-owned Enterprise School. *Primary and Secondary School Management*(7), 46-47.
Foster, C. (1992). *Privatization, Public Ownership, and the Regulation of Natural Monopoly*: Blackwell Publishers.
Foster, L., & Harman, K. (1992). *Australian education, a sociological perspective* (3rd ed.). New York ; Sydney: Prentice Hall.
Frankham, J. (2006). Network Utopias and Alternative Entanglements for Educational Research and Practice. *Journal of Education Policy, 21*(6), 661-677. doi: 10.1080/02680930600969191
Friedman, M. (1962). *Capitalism and Freedom*. Chicago ; London: University of Chicago Press.
Gewirtz, S., Ball, S. J., & Bowe, R. (1995). *Markets, Choice, and Equity in Education*. Buckingham ; Philadelphia: Open University Press.
Giguere, S. (2006). *Local Governance for Economic Development: Practice ahead of Theory*. Paper presented at the Governments and Communities in Partnership conference, Centre for Public Policy, University of Melbourne, Australia.
Gillard, D. (2011). Education in England: a Brief History Retrieved 15th March 2011, from http://www.educationengland.org.uk/history/chapter08.html
Gleeson, D. (1992). School attendance and truancy: a socio-historical account. *The Sociological Review, 40*(3), 437-490. doi: 10.1111/j.1467-954X.1992.tb00398.x
Glesne, C., & Peshkin, A. (1992). *Becoming Qualitative Researchers : an Introduction*. White Plains, N.Y.: Longman.
Goodwin, M. (2009). Which Networks Matter in Education Governance? A Reply to Ball's 'New Philanthropy, New Networks and New Governance in Education'. *Political Studies, 57*(3), 680-687.
Graddol, D. (2000). The Future of English?: A Grade to Forecasting the Popularity of the English Language in the 21st Century (pp. 66): The British Council.
Green, A. (1997). *Education, globalization, and the nation state*. New York: Palgrave/St. Martin's Press.
Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a Conceptual Framework for Mixed Method Evaluation Designs. *Educational Evaluation and Policy Analysis, 11*, 255-274.
Grubb, W. N. (1996). The New Vocationalism: What It is, What It Could be. *Phi Delta Kappan, 77*(8).
Hall, R. H. (1963). The Concept of Bureaucracy: An Empirical Assessment. *The American Journal of Sociology, 69*(1), 32-40.
Hammersley, M. (1992). *What's Wrong with Ethnography? : Methodological Explorations*. London: Routledge.
Hanf, K., & Scharpf, F. W. (1978). *Interorganizational policy making: limits to coordination and central control*. London ; Beverly Hills: Sage Publications.
Hannum, E. (1999). Political Change and the Urban-Rural Gap in Basic Education in China, 1949-1990. *Comparative Education Review, 43*(2), 193-211.

Harbin Education. (2012). The Basic Statistics of Education in Harbin Retrieved 4th May, 2012, from http://www.hledu.net/xzbb/jygk/735.html
Harman, G. S., & Smart, D. (1982). *Federal intervention in Australian education*. Melbourne: Georgian House.
Harris, J., Zhao, Y., & Caldwell, B. J. (2009). Global Characteristics of School Transformation in China. *Asia Pacific Journal of Education, 29*(4), 413-426.
Hawkins, J. N. (2000). Centralization, decentralization, recentralization - Educational reform in China. *Journal of Educational Administration, 38*(5), 442.
Heclo, H. (1978). Issue Networks and the Executive Establishment. In S. H. Beer & A. S. King (Eds.), *The New American Political System* (pp. 87-124). Washington D.C.: American Enterprise Institute for Public Policy Research.
Heclo, H., & Wildavsky, A. (1974). *The Private Government of Public Money: Community and Policy inside British Politics*. London: Macmillan.
Heilongjiang Morning Post. (2007). Fu Ming Yu - Peoples' Good Representative, *Heilongjiang Morning Post*
Henry, M., & Taylor, S. (1997). Globalisation and national schooling policy in Australia. In B. Lingard & P. H. Porter (Eds.), *A National approach to schooling in Australia? : essays on the development of national policies in schools education* (pp. 46-59). Canberra: Australian College of Education.
Heshmati, A., & Kumbhakar, S. C. (2011). Technical Change and Total Factor Productivity Growth: The Case of Chinese Provinces. *Technological Forecasting and Social Change, 78*(4), 575-590.
Higginson, J. H. (1974). Dame Schools. *British Journal of Educational Studies, 22*(2), 166-181.
HKTDC. (2011a). Harbin (Heilongjiang) City Information Retrieved 2012, 4th May, from http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/Harbin-Heilongjiang-City-Information/ff/en/1/1X000000/1X074BKJ.htm
HKTDC. (2011b). Shenzhen (Guangdong) City Information Retrieved 2012, 4th May, from http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/Shenzhen-Guangdong-City-Information/ff/en/1/1X000000/1X073N9U.htm
Huang, W. P. (1999). Education Separation and Development of the Primary and Secondary School along Railway Lines. *Journal of Zheng Tie Education*(1), 67-68.
Hudson, L. A., & Ozanne, J. L. (1988). Alternative Ways of Seeking Knowledge in Consumer Research. *Journal of Consumer Research, 14*(4), 508-521.
Ironside, R. (2012). State Schools Offered $50,000 Extra Funding to go Independent: John-Paul Langbroek Retrieved 13th July, 2012, from http://www.couriermail.com.au/news/queensland/state-schools-offered-50000-extra-funding-to-go-independent-john-paul-langbroek/story-e6freoof-1226404351542
Jaques, E. (1991). In the Praise of Hierarchy. In G. Thompson, J. Frances, R. Levacic & J. Mitchell (Eds.), *Markets, Hierarchies and Networks: The Coordination of Social Life* (pp. 108-118): The Open University.
Jessop, B. (1998). The Rise of Governance and the Risks of Failure: the Case of Economic Development. *International Social Science Journal, 50*(155), 29-45. doi: 10.1111/1468-2451.00107
JETRO. (1998). The 15th Party Congress and State-owned Enterprise Reform. *Japanese External Trade Organization (JETRO) China Newsletter, 2*(133), 6-10.
Jick, T. D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in

Action. [Article]. *Administrative Science Quarterly, 24*(4), 602-611.
Jing, G. (1994). Problems and Reform in Chinese Enterprises' Basic Education. *China Education*(1), 43-45.
Johnson, D. (1987). *Private Schools and State Schools: Two Systems or One?* : Open University Press.
Johnson, D. M. (1984). Planning Small-scale Research In J. Bell (Ed.), *Conducting Small-scale Investigations in Educational Management*. London: Harper & Row.
Johnson, D. M. (1993). Classroom-oriented Research in Second Language Learning. In A. Omaggio-Hadley (Ed.), *Research in Language Learning : Principles, Processes, and Prospects* (pp. 1-23). Lincolnwood, IL: National Textbook Co.
Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research, 1*(2), 112-133. doi: 10.1177/1558689806298224
Jupp, V., & Sapsford, R. J. (1996). *Data Collection and Analysis*. London: Sage.
Kaestle, C. F., & Foner, E. (1983). *Pillars of the Republic: Common schools and American society, 1780-1860*. New York: Hill and Wang.
Kantor, H. (2001). In Retrospect: David Tyack's The One Best System. *Reviews in American History, 29*(2), 319-327.
Kenis, P., & Schneider, V. (1991). Policy Network and Policy Analysis: Scrutinizing a New Analytical Toolbox. In B. Marin & R. Mayntz (Eds.), *Policy Networks : Empirical Evidence and Theoretical Considerations* (pp. 25-59). Frankfurt am Main: Campus Verlag.
Kenis, P., & Schneider, V. (1991). Policy Networks and Policy Analysis: Scrutinizing a New analytical Toolbox. In B. Marin & R. Mayntz (Eds.), *Policy networks*. Frankfurt: Campus Verlag
Kersbergen, K. V., & Waarden, F. V. (2004). 'Governance' as a Bridge Between Disciplines: Cross-disciplinary Inspiration Regarding Shifts in Governance and Problems of Governability, Accountability and Legitimacy. *European Journal of Political Research, 43*(2), 143-171.
Kickert, W. J. M., Klijn, E. H., & Koppenjan, J. (1997). *Managing Complex Networks: Strategies for the Public Sector*. London: Sage Publications.
Kjær, A. M. (2004). *Governance*. Malden, MA: Polity/Blackwell.
Klijn, E. H. (2008). Networks as perspective on policy and implementation. In S. Cropper (Ed.), *The Oxford handbook of inter-organizational relations* (pp. 118-146). Oxford ; New York: Oxford University Press.
Klijn, E. H., & Skelcher, C. (2007). Democracy and Governance Networks: Compatible or Not? *Public Administration, 85*(3), 587-608. doi: 10.1111/j.1467-9299.2007.00662.x
Knapper, C., & Cropley, A. (2000). *Lifelong Learning in Higher Education* (3rd ed.). London: Kogan Page.
Koppenjan, J. (2007). Consensus and Conflict in Policy Networks: Too Much or Too Little. In E. Sørensen & J. Torfing (Eds.), *Theories of Democratic Network Governance* (pp. 133-152). London: Palgrave Macmillan.
Koppenjan, J., & Klijn, E. H. (2004). *Managing Uncertainties in Networks: A Network Approach to Problem Solving and Decision Making*. London ; New York, NY: Routledge.
Kusune, S. (2011). Do so-called Dewesternized Asian Media Studies as a Discipline Serve Authoritarian Countries as a Tool to Control own People and Cause more Conflicts in the International Communication ? *Kanazawa Law Review, 53*(2), 55-71.

Kwong, J. (1996). The New Educational Mandate in China: Running Schools Running Businesses. *International Journal of Educational Development, 16*(2), 185-194.
Kwong, J. (2000). Introduction: Marketization and Privatization in Education. *International Journal of Educational Development, 20*(2), 87-92.
Lai, M., & Lo, L. (2006). Decentralization and Social Partnership: The Development of Vocational Education at Shanghai and Shenzhen in China. *Educational Research for Policy and Practice, 5*(2), 101-120. doi: 10.1007/s10671-006-7176-x
Larkin, P. J., Dierckx de Casterlé, B., & Schotsmans, P. (2007). Multilingual Translation Issues in Qualitative Research. *Qualitative Health Research, 17*(4), 468-476. doi: 10.1177/1049732307299258
Law, W.-W., & Pan, S.-Y. (2009). Game Theory and Educational Policy: Private Education Legislation in China. *International Journal of Educational Development, 29*(3), 227-240.
Lawn, M. (2007). Governing by Network in Europe: Associations, Educational Research and Social Partnership. *Critical Studies in Education, 48*(1), 79-95.
Lawn, M., & Grek, S. (2012). *Europeanizing Education : Governing a New Policy Space*. Oxford: Symposium Books.
Lawn, M., & Lingard, B. (2002). Constructing a European Policy Space in Educational Governance: The Role of Transnational Policy Actors. *European Educational Research Journal, 1*(2), 290-307.
Le Grand, J., & Robinson, R. (1985). *Privatization and the Welfare State*. London: George, Allen and Unwin.
Levacic, R. (1992). The LEA and its Schools: The Decentralised Organisation and the Internal Market. In G. Wallace (Ed.), *Local Management of Schools: Research and Experience* (pp. 82-101): Multilingual Matters Ltd.
Li, D. (1991). Reform of Public Enterprises in China. In G. Gouri (Ed.), *Privatization and Public Enterprises: The Asia-Pacific Experience* (pp. 517-545): Oxford and IBH Publishing Co. Pvt. Ltd.
Li, W. (1997). Views on Loss-Making State Enterprises. *Beijing Review*(July 14), 4.
Li, W. (2009). Soical Partnership in Vocational Education and Its New Trends. *Soical Partnership in Vocational Education and Its New Trends, Journal of Shenzhen Polytechic*(2), 44-49.
Li, Z. Q. (2008). Policy Network Governance: Theory, Pattern, Strategy. *Journal of Xiangtan University (Philosophy and Social Sciences), 32*(2), 80-84.
Liang, X. (2001). China: Challenge of Secondary Education *Secondary Education Series*: The World Bank.
Liebman, J. S., & Sabel, C. F. (2003). A Public Laboratory Dewey Barely Imagined: The Emerging Model of School Governance and Legal Reform. *Review of Law and Social Change, 28*(2), 183-304.
Liew, L. (1997). *The Chinese Economy in Transition: From Plan to Market*. Cheltenham: Edward Elgar.
Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverley Hills: Sage Publications.
Lindblad, S., Johannesson, I., & Simola, H. (2002). Education Goverannce in Tansition: an Introduction. *Scandinavian Journal of Educational Research, 46*(3), 327-245.
Liu, H. (2004). Research on Problems of schools detaching from SOEs in Helongjiang Province. *Heilongjiang Jiaoyu*(11), 28.
Liu, N. R. (2009). Decentralisation and Marketisation of Adult and Continuing Education: A Chinese Case Study. *International Journal of Educational Development, 29*, 212-218.

Liu, Y., & Fang, Y. (2009). Basic Education Reform in China: Globalization with Chinese Characteristics. *Asia Pacific Journal of Education, 29*(4), 407 - 412.
Lo, C. (1998). China's Growth Strategy. *Far Eastern Economic Review*(December 31), 90.
Lo, K.-C. (2013). Rethinking Asianism and method. *European Journal of Cultural Studies*. doi: 10.1177/1367549413501480
Macintyre, S. (1991). *A Colonial Liberalism: The Lost World of Three Victorian Visionaries*. South Melbourne: Oxford.
Malik, A. (2002). State of the Art in Governance Indicators *Human Development Report 2002* (pp. 1-31): United Nations Development Program.
Marginson, S. (1992). *The Free Market: A Study of Hayek, Friedman and Buchanan and Their Effects on the Public Good*. Kensington, N.S.W.: Public Sector Research Centre, University of New South Wales.
Marginson, S. (1993). *Education and Public Policy in Australia*. Cambridge [England] ; New York, NY, USA: Cambridge University Press.
Marginson, S. (1997). *Markets in Education*. St. Leonards, N.S.W.: Allen & Unwin.
Maroy, C. (2009). Convergences and hybridization of education policies around 'post-bureaucratic' models of regulation. *Compare: A Journal of Comparative and International Education, 39*(1), 71-84.
Maroy, C. (2012). Towards Post-bureaucratic Modes of Governance: A European Perspective. In G. Steiner-Khamsi & F. Waldow (Eds.), *Policy Borrowing and Lending in Education* (pp. 62-80). London: Routledge.
McPherson, A., & Raab, C. D. (1988). *Governing Education: A Sociology of Policy since 1945*. Edinburgh: Edinburgh University Press.
Meuleman, L. (2008). *Public Management and the Metagovernance of Hierarchies, Networks and Markets: The Feasibility of Designing and Managing Governance Style Combinations*. Heidelberg: Physica-Verlag.
Miller, A. (2007). Hu Jintao and the sixth Plenum. *China Leadership Monitor, 20*, 1-12.
Mitchell, J. (1991). Hierarchies: Introduction. In G. Thompson, J. Frances, R. Levacic & J. Mitchell (Eds.), *Markets, Hierarchies and Networks: The Coordination of Social Life* (pp. 105-107): The Open University.
Miyazaki, I. (1976). *China's Examination Hell: The Civil Service Examinations of Imperial China*. New Haven, CT: Yale University Press.
Mogalakwe, M. (2006). The Use of Documentary Research Methods in Social Research. *African Sociological Review, 10*(1), 221-230.
Mok, K. H. (1997a). Private Challenges to Public Dominance: The Resurgence of Private Education in the Pearl River Delta. *Comparative Education, 33*(1), 43-60.
Mok, K. H. (1997b). Privatization or Marketization: Educational Development in Post-Mao China. *International Review of Education, 43*(5/6), 547-567.
Mok, K. H. (1997c). Retreat of the State: Marketization of Education in the Pearl River Delta. *Comparative Education Review, 41*(3), 260-276.
Mok, K. H. (2001). From State Control to Governance: Decentralization and Higher Education in Guangdong, China. *International Review of Education, 47*(1/2), 123-149.
Mok, K. H. (2003). Globalisation and Higher Education Restructuring in Hong Kong, Taiwan and Mainland China. *Higher Education Research & Development, 22*(2), 117 - 129.
Nao, C. (2009). From Local Governments to Local Governance: Anlaysis of Policy Network. *Journal of Tianjin Administration Institute, 11*(4), 52-55.
National Health and Medical Research Council. (1999). *National Statement on Ethical*

Conduct in Human Research. National Health and Medical Research Council
National Health and Medical Research Council. (2007). *National Statement on Ethical Conduct in Human Research*. National Health and Medical Research Council
National People's Congress. (1982). Constitution of the People's Republic of China Retrieved 16th July, 2012, from http://english.people.com.cn/constitution/constitution.html
Nationsonline. (2013). Most widely spoken Languages in the World Retrieved August 10, 2013, from http://www.nationsonline.org/oneworld/most_spoken_languages.htm
NCEE. (1983). *A Nation at Risk: The Imperatives for Education Reform*.
Nir, A. E. (2003). Quasi-Market: The Changing Context of Schooling. *International Journal of Educational Reform, 12*(1), 26-39.
O'Leary, Z. (2010). *The Essential Guide to Doing Your Research Project* ([2nd ed.). Thousand Oaks, Calif. ; London: Sage Publications.
O'Toole, J., & Beckett, D. (2010). *Educational Research : Creative Thinking & Doing*. South Melbourne, Vic.: Oxford University Press.
Organisation for Economic Co-operation and Development. (2011). *Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education*: The Organisation for Economic Co-operation and Development Publishing.
Ouchi, W. G. (1980). Markets, Bureaucracies, and Clans. *Administrative Science Quarterly, 25*(1), 129-141.
Ozga, J. (2009). Governing Education through Data in England: From Regulation to Self-evaluation. *Journal of Education Policy, 24*(2), 149-162. doi: 10.1080/02680930902733121
Ozga, J., & Grek, S. (2012). Governing through Learning. School Self-Evaluation as a Knowledge-based Regulatory Tool. *Recherches sociologiques et anthropologiques, 43*(2), 35-52.
Pan, S., Jin, G., & Li, X. (2011). Structures and Governance of Policy Networks: Take Marco-Control Policies to Real Estate in China for Example. *Research in City Development, 18*(3), 8-13.
Pascual, M. (1996). The State of China's SOEs - an Overview. *China Currents, 7*(2-3), 1-14.
Payne, G., & Payne, J. (2004). *Key Concepts in Social Research*. London: SAGE.
Peng, B. (2004). Policy Network Theories and Chinese Basic Level Politics Research. *Journal of Zhejiang Communist Party School*(1).
People Daily. (2004). China has more than 70,000 private schools Retrieved 3rd March, 2012, from http://english.peopledaily.com.cn/200403/26/eng20040326_138601.shtml
People Daily. (2007). Harmonious Society Retrieved 10th June, 2013, from http://english.peopledaily.com.cn/90002/92169/92211/6274603.html
Perkins, D. (1994). Completing China's Move to the Market. *The Journal of Economic Perspectives, 8*(2), 23-46.
Pons, X., & van Zanten, A. (2007). Knowledge Circulation, Regulation and Governance. *KnowandPol Literature Review*, 10-38.
Popkewitz, T. S. (1996). Rethinking Decentralization and State / Civil Society Sistinctions: the State as a Problematic of Governing. *Journal of Education Policy, 11*(1), 27-51. doi: 10.1080/0268093960110102
Puppis, M. (2010). Media Governance: A New Concept for the Analysis of Media Policy and Regulation. *Communication, Culture & Critique, 3*(2), 134-149. doi: 10.1111/j.1753-9137.2010.01063.x

Qi, W., & Tang, H. (2004). The Social and Cultural Background of Contemporary Moral Education in China. *Journal of Moral Education, 33*(4), 465-480.
Qin, Y., & Hong, H. (1996). Management of State-owned Enterprise School: Contradiction and Countermeasures. *Jiangsu Province Salt Science & Techology*(1), 46-47.
Rawski, T. (1999). Reforming China's Economy: What have We Learned. *The China Journal*(41), 139-156.
Ren, Y. (2005). On the Two kinds of Analytical Approaches to Policy Networks and Influences. *Chinese Journal of Public Management, 3*, 55-60.
Ren, Y. (2007). Policy Network: Schools, Types and Values. *Administrative Tribune*(2), 41-45.
Rhodes, R. A. W. (1990). Policy Networks: A British Perspective. *Journal of Theoretical Politics, 2*(3), 293-317. doi: 10.1177/0951692890002003003
Rhodes, R. A. W. (1994). The Hollowing out of the State: The Changing Nature of the Public Service in Britain. *The Political Quarterly, 65*(2), 138-151.
Rhodes, R. A. W. (1996). The New Governance: Governing without Government. *Political Studies, 44*(4), 652-667.
Rhodes, R. A. W. (1997). *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*. Bristol, Pa.: Open University Press.
Rhodes, R. A. W. (2000). Goveranance and Public Administration. In J. Pierre (Ed.), *Debating Governance: Authority, Steering, and Democracy* (pp. 55-90). Oxford: Oxford University Press.
Rhodes, R. A. W. (2007). Understanding Governance: Ten Years On. *Organization Studies, 28*(8), 1243-1264.
Robbins, S., Bergman, R., Stagg, I., & Coulter, M. (2000). *Management* (2nd ed.). Australia: Prentice Hall
Rui, H. (2005). *Globalization, Transition and Development in China: The Case of the Coal Industry*. London ; New York: RoutledgeCurzon.
Sabatier, P. A. (1986). Top-down and Bottom-up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis. *Journal of Public Policy, 6*(1), 21-48.
Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research. *Quality and Quantity, 36*(1), 43-53.
SASAC. (2005). The Pilot Studies of Detaching Schools from State-owned Enterprises Retrieved 30th September 2010, from http://www.sasac.gov.cn/rdzt/zt0033/default.htm
SASAC. (2012). Main Functions and Responsibilities of State-owned Assets Supervision and Administration Commission of the State Council Retrieved 16th May, 2012, from http://www.sasac.gov.cn/n2963340/n2963393/2965120.html
SASAC-Harbin. (2004). Notice of the Implementation of Separating SOEs' Primary and Secondary Schools in Harbin Retrieved 18th August, 2012, from http://www.hrbgzw.gov.cn/news_text.asp?id=12158
Saurine, A. (2009). Families Caught by Childcare Collapse: ABC Learning, CFK Retrieved January 21, 2009, from http://www.news.com.au/dailytelegraph/story/0,22049,24928878-5001021,00.html?from=public_rss
Scharpf, F. W. (1978). Interorganizational Policy Studies: Issues, Concepts and Perspectives. In K. Hanf & F. W. Scharpf (Eds.), *Interorganizational Policy*

Making: Limits to Coordination and Central Control (pp. 345-370). London: Sage Publications
Scott, J. (1990). *A Matter of Record: Documentary Sources in Social Research*. Cambridge, UK: Polity Press.
Seddon, T. (1997). Education: Deprofessionalised? Or Reregulated, Reorganised and Reauthorised? *Australian Journal of Education, 41*(3), 228-246.
Seddon, T. (2002). *Beyond States and Markets: Centralised and Decentralised Networks in Education*. Paper presented at the AARE 2003. http://www.aare.edu.au/03pap/sed03668.pdf
Seddon, T. (2006). *Mobile Learners: Networked Governance and the Embodiment of Partnership*. Paper presented at the AARE 2006. http://www.aare.edu.au/06pap/sed06869.pdf
Seddon, T., Billett, S., & Clemans, A. (2005). Navigating Social Partnerships: Central Agencies-Local Networks. *British Journal of Sociology of Education, 26*(5), 567-584.
Seddon, T., Clemans, A., & Billett, S. (2005). Social Partnerships : Practices, Paradoxes and Prospects of Local Learning Networks. *Australian Educational Researcher, 31*(1), 25-48.
Sellar, S., & Lingard, B. (2013). The OECD and Global Governance in Education. *Journal of Education Policy, 28*(5), 710-725. doi: 10.1080/02680939.2013.779791
Sexton, F. (2003). Dangerous liaisons. *Australian Educator, 37*, 12-13.
She, S. (1999). China's Total State Assets Published. *China Economic News*(September 12), 5-6.
Sheldon, S. B., & Van Voorhis, F. L. (2004). Partnership Programs in U.S. Schools: Their Development and Relationship to Family Involvement Outcomes. *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice, 15*(2), 125-148.
Shenzhen Education. (2012). The Basic Development of Education in Shenzhen, 2011 Retrieved 4th May, 2012, from http://www.szeb.edu.cn/SZEB/HTMLDynamic/YWTJT_494/201202/info28570.html
Shirley, M. (1983). Managing State-Owned Enterprises. Washington D.C.: the World Bank.
Si, Y. (2001). Seize the Opportunity, Work Hard to Produce a Good Characteristics of State-owned Enterprise School. *Guizhou Education*(12), 16-18.
Sieber, S. D. (1973). The Integration of Fieldwork and Survey Methods. *American Journal of Sociology, 78*(6), 1335-1359. doi: 10.2307/2776390
Smith, A. (1766). *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Ward, Lock.
Smyth, R. (1998). Toward 'the Modern Corporation": Recent Develoments in the Reform of State-owned Enterprises in Mainland China. *Issues & Studies, 33*(4), 508-525.
Smyth, R. (1999). Enterprises Bankruptcies and the Restructuring of China's State-owned Sector: A Review of Some Recent Problems and Prospects for Future Success. *China Information, 8*(4), 66-82.
Sørensen, E., & Torfing, J. (2005). The Democratic Anchorage of Governance Networks. *Scandinavian Political Studies, 28*(3), 195-218. doi: 10.1111/j.1467-9477.2005.00129.x
Sørensen, E., & Torfing, J. (2007a). Theoretical Approaches to Metagovernance. In E.

Sørensen & J. Torfing (Eds.), *Theories of Democratic Network Governance* (pp. 169-182). London: Palgrave Macmillan.
Sørensen, E., & Torfing, J. (2007b). *Theories of Democratic Network Governance*. London: Palgrave Macmillan.
Spring, J. (2005). *The American School 1642 - 2004* (6th ed.). New York: McGraw Hill.
State Administration of Taxation. (2005). *The Ministry of Finance and the State Administration of Taxation: Tax Deduction on Related Expense of Railway Enterprises after Separating Social Functions*. Beijing: State Administration of Taxation Retrieved from http://www.chinatax.gov.cn/n8136506/n8136563/n8193451/n8193526/n8194326/8246332.html.
State Records Office of Western Australia. (2011). Education And School Records Retrieved 15th January 2011, from http://www.sro.wa.gov.au/collection/education.asp
Steinfeld, E. S. (1998). *Forging Reform in China: The Fate of State-owned Industry*. Cambridge, UK ; New York: Cambridge University Press.
Stoker, G. (1998). Governance as Theory: Five Propositions *International Social Science Journal*, *50*(155), 18-28.
Su, X. (2002). *Education in China: Reforms and innovations*. Beijing: China Intercontinental Press.
Sun, B., & Li, Z. (2008). Policy Network Governance: A New Way of Public Governance. *Chinese Public Administration*(5), 106-109.
Sun, M. (2010). Education System Reform in China after 1978: some Practical Implications. *The International Journal of Educational Management*, *24*(4), 314.
Takahashi, T. (2007). De-Westernizing Media Studies: a Japanese Perspective. *Global Media and Communication*, *3*(3), 330-335.
Tang, H. F. (2004). Policy Network and Policy Consequence: The Analysis of the Changing Allocation Pattern in the Rural Taxation *The Journal of CPC Zhejiang Provincial Party School*(1), 31-36.
Tao, R. (2003). Lifelong Coach, but Rootless in Their Ages: State-owned Enterprises Retired Teacher Begged Teachers' Identities, *Nanfang Daily*.
Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks: SAGE.
The Ministry of Education. (2004). The Full Implementation of The 2003-2007 Action Plan for Invigorating Education: Ministry of Education.
The United Nations Educational, S. a. C. O. (2008). Adult Education and Learning in China: Development and Present Situation: The United Nations Educational, Scientific and Cultural Organization.
Thompson, G. (2003). *Between Hierarchies and Markets: The Logic and Limits of Network Forms of Organization*. Oxford: Oxford University Press.
Thompson, G., Frances, J., Levacic, R., & Mitchell, J. (1991). *Markets, Hierarchies and Networks: The Coordination of Social Life* The Open University.
Tian, Q. (1994). State-Owned Enterprises Reform and Smooth Institutional Transition in China - A Three stages Economic Reform Method (pp. 1-22): the Department of Economics, The Texas A&M University.
Torfing, J., Sørensen, E., & Fotel, T. (2009). Democratic Anchorage of Infrastructural Governance Networks: the Case of the Femern Belt Forum. *Planning Theory*, *8*(3), 282-308. doi: 10.1177/1473095209104827
Treib, O., Bähr, H., & Falkner, G. (2007). Modes of Governance: Towards a Conceptual Clarification. *Journal of European Public Policy*, *14*(1), 1-20.

Truman, D. B. (1971). *The Governmental Process: Political Interests and Public Opinion*. New York: Knopf.
Tsang, M. C. (1996). Financial Reform of Basic Education in China. *Economics of Education Review, 15*(4), 423-444.
Tsang, M. C. (2000). Education and National Development in China since 1949: Oscillating Policies and Enduring Dilemmas. *China Review, 2000*, 579-618.
Tsang, M. C. (2001). School Choice in People's Repubic of China: National Center for the Study of Privatization in Education, Teacher College, Columbia University, Occasional Paper No. 9.
Tsang, M. C., & Ding, Y. (2005). Resource Utilization and Disparities in Compulsory Education in China. *China Review, 5*(1), 1-33.
Tu, C. (2004). Constructing a Socialist Harmonious Society. *Theory Journal, 12*, 21-24.
Turner, D. (2004). Privatisation, Decentralisation and Education in the United Kingdom: The Role of the State. *International Review of Education, 50*(3/4), 347-357.
Tyack, D. (1974). *The One Best System: A History of American Urban Education*. Cambridge, Mass.: Harvard University Press.
United States Census Bureau. (2013). World Population Clock Retrieved August 10, 2013, from http://www.census.gov/popclock/
Vann, B., & Hayfor, O. (2004). *Public Private Partnerships - Managing the Challenges*. Paper presented at the 4th National Public Private Partnerships Summit.
Walsh, K. (1995). *Public Services and Market Mechanisms: Competition, Contracting and the New Public Management*. New York: St. Martin's Press.
Wang, C. (2002). Minban Education: the Planned Elimination of the "People-managed" Teachers in Reforming China. *International Journal of Educational Development, 22*(2), 109-129.
Wang, C. (2009). The Openingness of Policy Network and Implementation of Public Interests. *Journal of the Party School of the Central Committee of the C.P.C, 13*(1), 99-103.
Wang, J. (2003). Analysis on the Development of Poor State-owned Enterprise Schools. *Gansu Education*(9), 6.
Wang, S. G. (2005). Four Aspects for Building Socialist Harmonious Society. *Journal of Gannan Teachers College, 2005*(1), 10-13.
Wang, X., Xu, L. C., & Zhu, T. (2004). State-owned enterprises going public: The case of China. *Economics of Transition, 12*(3), 467-487. doi: 10.1111/j.0967-0750.2004.00189.x
Wang, Z. (2003). *Opening Remarks at the Seminar on Internartional Cooperation for Adult Education.* Paper presented at the Adult Education and Development, Beijing.
Weber, M. (1991). Legal Authority in a Bureaucracy. In G. Thompson, J. Frances, R. Levacic & J. Mitchell (Eds.), *Markets, Hierarchies and Networks: The Coordination of Social Life* (pp. 119-127). London: SAGE Publications.
Wei, H. (2008). The characteristics of China's compulsory education funding policy change, 1986-2006. *Frontiers of Education in China, 3*, 115-122. Retrieved from
Wei, S.-J. (1995). The Open Door Policy and China's Rapid Growth: Evidence from City-level Data. In T. Ito & A. O. Krueger (Eds.), *Growth Theories in Light of the East Asian Experience, NBER-EASE* (pp. 73-104). Chicago: University of Chicago Press.
Welsh, M. (1999). *Inputs to Outcomes? Perceptions of the Evolution of Commonwealth Government Policy Approaches to Outcome-based Education (1985-1996).* Paper presented at the Australian Association for Research in Education and

New Zealand Association for Research in Education. http://www.aare.edu.au/99pap/wel99232.htm
Whitty, G. (2000). *Education Reform and Education Politics in England: a Sociological Analysis*. Paper presented at the Education at the Crossroads: Education Reform and Education Politics in Japan and England, the Institute of Education, Japan.
Whitty, G. (2005). *The State and the Market in English Education Policy*. Paper presented at the Beijing Normal University.
Whitty, G., Halpin, D., & Power, S. (1998). *Devolution and Choice in Education : the School, the State, and the Market*. Buckingham [England] ; Bristol, PA, USA: Open University Press.
Wilhelm, K. (1999). Out of Business. *Far Eastern Economic Review*(February 18), 10-12.
Wohlstetter, P., Malloy, C., Chau, D., & Polhemus, J. (2003). Improving Schools through Networks: A New Approach to Urban School Reform. *Educational Policy, 17*(4), 399-430.
Wong, J., & Kheng, S.-P. (1997). Reforming China's State-owned Enterprises: Problems and Prospects. In G. Wang (Ed.), *China after the Fifteenth Party Congress : New Initiatives* (pp. 65-86). Singapore: World Scientific Publishing Company and Singapore University Press.
Woodhead, M. (1989). ‘School Starts at Five . . . or Four Years Old?‘ The Rationale for Changing Admission Policies in England and Wales. *Journal of Education Policy, 4*(1), 1-21. doi: 10.1080/0268093890040101
Woods, P. A. (2003). Building on Weber to Understand Governance. *Sociology, 37*(1), 143-163. doi: 10.1177/0038038503037001391
World Bank. (1989). Sub-Saharan Africa: From Crisis to Sustainable Growth - A Long-term Perspective Study. Washington D.C.: World Bank.
World Bank. (2002). *China: Fourth Basic Education Project*. Washington D.C.: World Bank.
Wu, M. (2009). Policy Deviations: An Analysis on Chinese Civil Services Pay Reforms. *Journal of Public Management, 6*(3), 32-39.
Wu, X. (2008). The Power of Positional Competition and Market Mechanism: A Case Study of Recent Parental Choice Development in China. *Journal of Education Policy, 23*(6), 595-614.
Xia, M. (2000). Political Contestation and the Emergence of the Provincial People's Congresses as Power Players in Chinese Politics: A Network Explanation. *Journal of Contemporary China, 9*(24), 185-214.
Xia, M. (2008). *People's Congresses and Governance in China: Toward a Network Mode of Governance*. New York: Routledge
Xiao, G. (1998). Reforming the Governance Structure of China's State-owned Enterprises. *Public Administration and Development, 18*(3), 273-280.
Xie, G. (2003). *Adult Education in China: Present Situation, Acheivements and Challenges.* Paper presented at the Adult Education and Development, Beijing.
Xie, J. (2001). *Researches on the Separations of Enterprises and Their Attached Schools.* (Master), Hunan Normal University, Hunan.
Xu, Y. (2002). The Reform and Statusquo of the Elementrary Education Subject to State-owned Enterprises. *Henan Social Sciences, 10*(3), 89-91.
Xu, Z. (2001). An Overview of Privtate Education Development in Modern China: National Center for the Study of Privatization in Education, Teacher College, Columbia University, Occassional Paper No. 38.
Yang, D., & Wang, Y. (2008). Policy Network: Category, Criticize and Applicability

Journal of Gansu Administrative Institute(4), 2-9.
Yang, J. (1993). Technical and Vocational Education in the People's Republic of China: Current Status and Prospects. *The Vocational Aspect of Education, 45*(2), 135-143. doi: 10.1080/0305787930450204
Yang, R. (2004a). Openness and Reform as Dynamics for Development: A Case Study of Internationalisation at South China University of Technology. *Higher Education, 47*(4), 473-500.
Yang, R. (2004b). Toward Massification: Higher Education Development in the People's Repulic of China Since 1949. In J. C. Smart (Ed.), *Higher-Education - Handbook of Theory and Research* (Vol. XIX, pp. 311-374). The Netherlands: kluwer Academic Publishers.
Yang, R., Vidovich, L., & Currie, J. (2007). "Dancing in a Cage": Changing Autonomy in Chinese Higher Education. *Higher Education, 54*(4), 575-592.
Yao, Y. (1998). Problems and Solutions for the State-owned Enterprise Secondary and Primary Schools. *Journal of Sichuan Teachers College* (1), 41-44.
Yeh, C.-M. (1998). Reform of State-owned Enterprises in Mainland China Since the CCP's Fifteen Congress. *Issues & Studies, 34*(5), 52-78.
Yeh, W.-H. (2000). *The Alienated Academy: Culture and Politics in Republican China, 1919-1937*. Cambridge, MA: Harvard University Asia Center.
Yen, Y. (2005). *Calligraphy and Power in Contemporary Chinese Society*: Routledge.
Ying, W. (2001). The Social Status and Functions of Education Group. *Educational Development Research*(3), 20-22.
You, Y. (2007). A Deep Reflection on the "Key School System" in Basic Education in China. *Frontiers of Education in China, 2*(2), 229-239. doi: 10.1007/s11516-007-0019-6
Young, M. (1971). *Knowledge and control: new directions for the sociology of education*. London: Collier-Macmillan.
Zajda, J. (2004). Introduction. *International Review of Education, 50*(3/4), 199-221.
Zhang, G., & Wu, H. (2008). Analysis of Obstacle in the Implementation of Policies *Journal of Yunnan Administration Institute*(1), 82-84.
Zhang, J. W., & Lou, C. W. (2007). The Research of Policy Networks on the Real Estate Marco-control. *Journal of Northeastern University (Social Science), 9*(4), 341-344.
Zhang, T. (2005). Literacy Education in China: United Nations Educational, Scientific and Cultural Organization.
Zhang, X., & Pan, S. (2008). Analysis of the Relationship between Policy Network and Policy Instruments. *Journal of Wuyi University (Social Sociences Edition), 10*(4), 76-80.
Zhao, L. (2008). Between Local Community and Central State: Financing Basic Education in China. *International Journal of Educational Development, 29*(4), 366-373.
Zhao, L., & Hu, X. (2008). The Development of Early Childhood Education in Rural Areas in China. *Early Years, 28*(2), 197-209. doi: 10.1080/09575140802079756
Zheng, H., Jong, M. D., & Koppenjan, J. (2010). Apply Policy Network Theory to Policy-Making in China: The Case of Urban Health Insurance Reform. *Public Administration, 88*(2), 398-417.
Zheng, Y., & Zou, Z. (1997). Power to Set Own Agenda: Jiang Zemin's New Political Initiatives at China's Fifteenth Party Congress. In G. Wang (Ed.), *China After the Fifteenth Party Congress: New Initiatives* (pp. 30-64): World Scientific Publishing Co. Pte. Ltd and Singapore University Press Pte. Ltd.

Zhou, N., & Zhu, M. (2007). *Educational Reform and Curriculum Change in China: A Comparative Case Study*. New York: International Bureau for Education, the United Nations Educational, Scientific and Cultural Organization.

Zhu, R. (1999). Report on the Work of the Government. *Beijing Review*(April 5-11), 10-25.

Zhu, Y. (2008). Housing Problem and Solution in China. *Wuhan Univeristy Journal (Philosophy & Social Sciences), 61*(3), 345-350.

Appendices

Appendix A: Human ethics certificate of approval from MUHREC

MONASH University

Monash University Human Research Ethics Committee (MUHREC)
Research Office

Human Ethics Certificate of Approval

Date:	**21 June 2010**
Project Number:	**CF10/1049 - 2010000550**
Project Title:	**The public education reform in China: The case of railway enterprise-run schools**
Chief Investigator:	**Professor Terri Seddon**
Approved:	**From: 21 June 2010 To: 21 June 2015**

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

[redacted]

Professor Ben Canny
Chair, MUHREC

cc: Mr Wing Keung Chan

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ABN 12 377 614 012 CRICOS Provider #00008C

Appendix B: Questions to different actors

Questions to Local State-owned Assets Supervision and Administration Commission (SASAC)

1. What is the role of SASAC in railway corporation/bureau and railway State-owned Enterprise (SOE) schools?
2. How are the performances of railway corporation/bureau and railway SOE schools?
3. What are the objectives of SASAC in passing the railway SOE schools to the Ministry of Education (local education bureaus)?
4. What are the benefits of SASAC in passing the railway SOEschools to the Ministry of Education?
5. What is the procedure of passing the railway SOEschools to the Ministry of Education?
6. Any difficulties for SASAC in passing the railway SOE schools to the Ministry of Education?
7. What is the role of SASAC in railway SOE schools after passing to the Ministry of Education?
8. What are the response from school principals and teachers (current and retired)?
9. Was it a fruitful negotiated result?

Questions to Senior Staff of Railway Corporation/Bureauand General Education Department

1. What are the historical backgrounds of building Railway SOE Schools?
2. What is the administrative and finance arrangement to railway corporation/bureau of owning the railway SOEschools?
3. How does the railway corporation/bureau supervise the railway SOEsschools?
4. How are the performances of railway SOEschools?
5. Any complaints or suggestions from principals and teachers (current and retired) regarding to the SOEs schools?
6. What are the objectives of railway corporation/bureau in passing the Railway SOE Schools to the Ministry of Education?
7. What are the benefits of railway corporation/bureau in passing the railway SOEschools to the Ministry of Education?
8. What is the procedure of railway corporation/bureau passing the railway SOE schools to the Ministry of Education?
9. Any difficulties for railway corporation/bureau in passing the railway SOE schools to the Ministry of Education?
10. What is the role of railway corporation/bureau after passing the railway SOE schools to the Ministry of Education?
11. What are the response from school principals and teachers (current and retired)?
12. Was it a fruitful negotiated result?

Questions to Government Official of Local Education Bureaus

1. What is the role of the local education bureau before receiving the railway SOE schools? For example, supervision, principal and teacher training, curriculum etc.
2. How many railway SOEschools have been received?
3. What is the objective of the local education bureau in receiving the railway SOEschools?
4. What are the common problems of railway SOEschools? Financial, Facilities, etc.
5. What are the benefits of railway SOEschools in receiving by the Ministry of Education?
6. Any difficulties for the local education bureau in receiving the railway SOE schools?
7. What is the role of the local education bureau after receiving the railway SOE schools? For example, supervision, teacher training, curriculum etc.
8. What are the response from school principals and teachers (current and retired)?
9. Was it a fruitful negotiated result?

Questions to Principals of Railway Enterprises-run Schools

1. What is the relationship between railway corporation/bureau and railway SOE schools, such as administration, supervision and finance?
2. Tell me about the brief history of the railway SOEschools (such as year of establishment, performance, teachers and students, etc.)
3. What is the role of local education bureau before transferring?
4. What are advantages of principals and teachers (current and retired) in passing railway SOE schools to the local education bureau?
5. What are disadvantages of principals and teachers (current and retired) in passing railway SOE schools to the local education bureau?
6. What are the objectives of the principals during the negotiation of the transferring?
7. Any difficulties for the principals and teachers (current and retired) during the transitional period?
8. What is the role of the principals after transferring to the local education bureau?
9. What is the different of remuneration/benefits of the principals and teachers before and after the transferring?
10. Was it a fruitful negotiated result?

Questions to Teachers of Railway Enterprises-run Schools

1. What is the relationship between railway corporation/bureau and railway SOE schools, such as administration, supervision and finance?
2. What is the role of local education bureau before transferring?
3. What are advantages of principals and teachers (current and retired) in passing railway SOE schools to the local education bureau?
4. What are disadvantages of principals and teachers (current and retired) in passing railway SOE schools to the local education bureau?
5. What are the objectives of the principals during the negotiation of the

transferring?

6. Any difficulties for the principals and teachers (current and retired) during the transitional period?
7. What is the role of the principals after transferring to the local education bureau?
8. What is the different of remuneration/benefits of the principals and teachers before and after the transferring?
9. Was it a fruitful negotiated result?

Appendix C: Explanatory statement

MONASH University

16th April 2010 二零一零年四月十六日

Explanatory Statement
解释条文

Title: The Public Education Reform in China: the Case of Railway Enterprise-run Schools

标题：中国公共教育改革:鐵路學校例子

This information sheet is for you to keep.
此资料是给您存盘。

Student research project 学员研究计划

My name is Wing Keung Chan and I am conducting a research project with Terri Seddon a Professor in the Faculty of Education towards a Doctor of Philosophy (Education) at Monash University. This means that I will be writing a thesis which is the equivalent of a 300 page book.

我的名字叫陈荣强，本人现于莫纳什大学修读哲学博士（教育），与教育学院的 Terri Seddon 教授进行一项研究，研究成果将会是一篇博士论文，约等同于 300 页书。

Why did you choose this particular person/group as participants? 为何选择特定的人/组别作为参与者？

I am inviting you to participate in this research because your employment means that you are knowledgeable about Enterprise-run schools in your region of China. I wish to ask you questions about the way Enterprise-run Schools in your region work, how they have changed over time, and how they been transferred back to the education bureau.

我邀請你参加这次研究，因为你的工作意味着你對區內的国有企业学校有相關的認識。我想请问你一些關於你所在地区的国有企业学校問題，它们如何随着时间改变，以及他们如何被移交至教育局。

The aim/purpose of the research 研究的目标

The aim of this study is to investigate: what happens in Railway Enterprise-run Schools after the implementation of the Modern Enterprises system to State-owned

Enterprises in China.

这项研究的目的是要找出在中国现代企业制度於國有企業实施下，铁路企业所开办的学校发生了什么變化。

Possible benefits 可能的益处

As a result of this research, we may understand how network governance works in public education reform in China, especially in enterprise-run schools.

這次研究結果會有助于了解中國公共教育改革如何應用網絡管理，特别是企業企业所开办的学校。

What does the research involve? 研究包括什么？

The study involves audio taping semi-structured interviews 本研究涉及半结构化的录音采访

How much time will the research take? 研究需时多久？

60 minutes of audio taped interview with me (the researcher) at a time and place of your convenience

在你方便的时间和地点进行 60 分钟录音采访

Inconvenience/discomfort 不便/不适

As researcher I believe that there will be no inconvenience and/or discomfort to the participant in this research.

研究员相信本研究将不会对参与者造成任何不便或不适。

Payment 报酬

No payment or reward offered.

不提供报酬

Can I withdraw from the research? 我可以退出这项研究吗？

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may only withdraw prior to having approved the interview transcript.If you do not want to continue to participate in this project, you can talk to researcher face-to-face during the interview or contact the researcher by email or telephone before or after interview.

这项研究是自愿的，您没有义务同意参与。但是，如果您同意参加，您只能在确认采访谈话内容之前撤回。如您不想繼續參與是次計劃, 您可於访谈時通知研究员, 或在访谈前後透過電郵或電話聯絡研究员。

Confidentiality 保密

The researcher will be using pseudonyms for participants in publication. The researcher will try to ensure that the way in which data are reported does not suggest particular individuals' identities. The researcher will report the diverse views respectfully in the belief that each participant holds reasoned views.

研究员在發佈文件中會使用參與者的匿名(非真實名字)。研究员將會確保在該資料中不會透露個人的身份信息。研究员會在報告裡尊重每個參與者所提出的意見。

Storage of data 存储资料

Storage of the data collected will adhere to the University regulations and be kept on University premises in a locked cupboard/filing cabinet for 5 years and any electronic files relevant to the data storage will be password protected.

存储收集的资料会遵守大学的规定，并保存于大学内的保险柜/文件柜 5 年。该研究报告，所有与数据相关的电子文档会用密码保存。

Results 成果

If you would like to be informed of the aggregate research findings, please contact Wing Keung Chan on + 61 3 90559159 or +61 431450451. The findings will be accessible from December 2011 until December 2012.
如果您希望得知总体的研究成果，可致电+61 3 90559159 或 +61 431450451 与陈荣强先生联络，结果可于 2011 年 12 月至 2012 年 12 月进行浏览。

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator: 如果您想联系有关这项研究的其它研究人员，请联系首席调查员：	If you have a complaint concerning the manner in which this research <CF10/1049 - 2010000550> is being conducted, please contact: 如果您对本研究<本研究编号：CF10/1049 - 201000055>有任何投诉，请联络：
Professor Terri Seddon Email: [redacted] Terri Seddon 教授 电邮： [redacted]	Mr. Raybert Kuk Senior Supervisor Education Training and Exchange Centre Hong Kong Federation of Education Workers 5/F Kowloon Building 555 Nathan Road Kowloon, Hong Kong [redacted] 谷裕峰先生 香港教育工作者联会 教育培训交流中心高级主任 香港九龙弥敦道 555 号九龙行 5 楼 [redacted]

Thank you.
谢谢!

[redacted]

Wing Keung Chan 陈荣强

Appendix D: Consent form

MONASH University

Consent Form
同意书

Title: The Public Education Reform in China: the Case of Railway Enterprise-run Schools

标题：中国公共教育改革:鐵路學校例子

NOTE: This consent form will remain with the Monash University researcher for their

records

注意：此表格会由莫纳什大学研究员存档

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

我同意参与上述莫纳什大学的研究项目。我已了解研究项目的内容及阅读了研究项目解释条文，并且存盘。我明白同意参加意味着：

1. I agree to be interviewed by the researcher ☐ Yes ☐ No
我同意接受研究员的采访同意不同意

2. I agree to make myself available for a further interview if required ☐ Yes ☐ No
如果需要，我同意接受研究员进一步的采访同意不同意

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

我明白我将会获得我谈话全文资料，并批准写在上述的研究项目。

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw this project prior to having approved the interview transcript without being disadvantaged in any way.

我明白我参与是自愿的，我可以选择部分或全部的研究项目不参与，也可以在确认采访谈话内容之前不参与研究项目，而不会受到惩罚或产生任何不利。

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

我明白研究员在所采访中所得的任何资料或已发布的结果，在任何情况下，都不会包括本人的名字及可辨认的特征。

Participant's name参与者姓名

Signature签名

Date日期

Appendix E: Letter from Mr. Raybert Kuk

Executive Officer, Human Research Ethics

Standing Committee on Ethics in Research Involving Humans (SCERH)

Building 3e Room 111

Research Office

Monash University

VIC 3800 Australia

Date: 6th March 2010

Dear Sir/Madam

I have accepted the role of receiving and informing SCERH of any complaints regarding to the research project of Mr. Wing Keung Chan [redacted]). The project title is "The Public Education Reform in China: the Case of Railway Enterprise-run Schools".

Here is my contact:

Mr. Raybert Kuk

Senior Supervisor

Education Training and Exchange Centre

Hong Kong Federation of Education Workers

5/F Kowloon Building, 555 Nathan Road, Kowloon, Hong Kong

[redacted]

Yours faithfully,

[redacted]

Raybert Kuk, Senior Supervisor

Education Training and Exchange Centre

Hong Kong Federation of Education Workers

Appendix F: Namelist of SOEs separating their schools and transferring to the MOE

1st Batch of 3 SOEs separating their schools and transferring to MOE	
China National Petroleum Corporation	China Petrochemical Corporation
Dong Feng Motor Corporation	
2nd Batch of 74 SOEs separating their schools and transferring to MOE	
Aluminium Corporation of China	China National Nuclear Corporation
Anshan Iron and Steel Group Corporation	China National Offshore Oil Corporation
Beijing General Research Institute of Mining & Metallurgy	China National Salt Industry Corporation
China Aerospace Science & Industry Corporation	China Nonferrous Metal Mining (Group) Corporation Limited
China Aerospace Science and Technology Corporation	China North Industries Group Corporation
China Animal Husbandry Group	China Northern Locomotive & Rolling Stock Industry (Group) Corporation
China Aviation Industry Corporation I	China Nuclear Engineering Group Company
China Aviation Industry Corporation II	China Power Engineering Consulting Group Corporation
China Changjiang National Shipping (Group) Corporation	China Power Investment Corporation
China Datang Corporation	China Putian Corporation
China Eastern Air Holding Company	China Railway Construction Corporation
China FAW Group Corporation	China Railway Engineering Corporation
China First Heavy Industries	China Railway Materials Commercial Corporation
China Forestry Group Corporation	China Railway Signal & Communication Corporation
China Gezhouba Group	China Road & Bridge Corporation
China Great Wall Computer Group Corporation	China Shipbuilding Industry Corporation

China Guodian Corporation	China Shipping (Group) Company
China Harbour Engineering Company Group	China South Industries Group Corporation
China Hengtian Group Corporation	China Southern Power Grid
China Huadian Corporation	China State Construction Engineering Corporation
China Huaneng Group	China State Farms Agribusiness (Group) Corporation
China Hydropower Engineering Consulting Group Corporation	China State Shipbuilding Corporation
China Locomotive & Rolling Stock Industrial Corporation	China Three Gorges Project Corporation
China Lucky Film Group Corporation	China Xian Electric Group
China Metallurgical Group Corporation	Dongfang Electric Corporation
China Minmentals Corporation	Harbin Power Equipment Corporation
China National Biotech Group	Huacheng Investment & Management Co., Ltd.
China National Building Material Group Corporation	IRICO Electronics Group Corporation
China National Chemical Corporation	Luzhong Metallurgy & Mining Group Corporation
China National Chemical Engineering Group Corporation	Panzhihua Iron & Steel (Group) Corporation
China National Coal Group Corporation	Shanghai Baosteel Group Corporation
China National Erzhong Group Co	Shenhua Group Corporation Limited
China National Fisheries Corporation	Sinohydro Corporation
China National Gold Group Corporation	State Development & Investment Corporation
China National Light Industrial Machinery Corporation	State Grid Corporation of China
China National Machinery & Equipment Corporation	Wuhan Iron and Steel (Group) Corporation
China National Materials Industry Group Corporation	Xinxing Pipes Group

Source: http://www.sasac.gov.cn/rdzt/zt0033/default.htm, http://www.sasac.gov.cn/gzjg/qzfq/200501190111.htm Access on 15th September 2010

Appendix G: The namelist of the railway SOE schools

Bureau Name	Provinces / Autonomous Regions / Municipalities	Primary School	Secondary School	Others (Technical College and Adult School)	Total
Harbin Bureau	Heilongjiang, Inner Mongolia Autonomous Region	124	67	21	212
Zhengzhou Bureau	Henan, Shaanxi, Hubei	98	74	10	182
Beijing Bureau	Beijing, Tianjin, Hebei, Shanxi	70	45	10	125
Shenyang Bureau	Jilin, Liaoning, Hebei, Inner Mongolia	66	37	12	115
Hohhot Bureau	Inner Mongolia Autonomous Region	45	36	7	88
Chengdu Bureau	Sichuan Province, Guizhou Province, Chongqing Municipality	45	22	10	77
Guangzhou Railway Group Corporation	Guangdong, Hunan, Hainan	36	26	4	66
Nanchang Bureau	Jiangxi, Fujian	42	18	3	63
Shanghai Bureau	Shanghai, Anhui, Zhejiang, Jiangsu	29	10	8	47
Jinan Bureau	Shandong, Jiangsu, Anhui, Henan	25	13	8	46
Liuzhou Bureau	Guangxi, Zhuang Autonomous Region, Guangdong, Guizhou	22	15	4	41
Urumqi Bureau	Xinjiang Autonomous Region	17	13	2	32
Kunming Bureau	Yunnan	10	12	1	23
Qinghai-Tibet Corporation	Qinghai	9	7	1	17
Lanzhou Bureau	Gansu, Ningxia Autonomous Region	6	3	1	10
	Total	644	398	102	1,144

Harbin Railway Bureau: Primary School

Hailar Railway Branch Bugt Workers' Children No. 2 Primary School

Harbin Railway Branch Acheng Railway Workers' Children Central School

Harbin Railway Branch Beian Railway Workers' Children Central Primary School

Harbin Railway Branch Beian Railway Workers' Children Central Primary School

Harbin Railway Branch Beian Railway Workers' Children No.2 Primary School

Harbin Railway Branch Hailun Railway Workers' Children Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 1 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 2 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 3 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 4 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 5 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 7 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 8 Primary School

Harbin Railway Branch Harbin Railway Workers' Children No. 9 Primary School

Harbin Railway Branch Hulan Railway Workers' Children Primary School

Harbin Railway Branch Kaoshan Railway Workers' Children Primary School

Harbin Railway Branch Keshan Railway Workers' Children Primary School

Harbin Railway Branch Longzhen Railway Workers' Children Primary School

Harbin Railway Branch Maoershan Railway Workers' Children School

Harbin Railway Branch Shenshu Railway Workers' Children School

Harbin Railway Branch Shuangcheng Railway Workers' Children Central School

Harbin Railway Branch Suihua Railway Central School

Harbin Railway Branch Suihua Railway Workers' Children No. 1 Primary School

Harbin Railway Branch Suihua Railway Workers' Children No. 2 Primary School

Harbin Railway Branch Suihua Railway Workers' Children No. 4 Primary School

Harbin Railway Branch Suihua Railway Workers' Children No. 5 Primary School

Harbin Railway Branch Taolaizhao Railway Workers' Children School

Harbin Railway Branch Taoshan Railway Workers' Children School

Harbin Railway Branch Wanggang Railway Workers' Children Primary School

Harbin Railway Branch Wuchang Railway Workers' Children School

Harbin Railway Branch Yuquan Railway Workers' Children No.1 School

Harbin Railway Branch Yuquan Railway Workers' Children No.2 School

Harbin Railway Branch Zhaodong Railway Workers' Children School

Heilongjiang Wuchang Railway Children Primary School

Jiagedaqi Railway Branch 18 Station Primary School

Jiagedaqi Railway Branch Dayangshu Primary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.1 Primary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.2 Primary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.3 Primary School

Jiagedaqi Railway Branch Jintao Primary School

Jiagedaqi Railway Branch Linhai Primary School

Jiagedaqi Railway Branch Tahe Primary School

Jiamusi Railway Branch Fujin Railway Workers' Children Primary School

Jiamusi Railway Branch Haolianghe Railway Workers' Children School

Jiamusi Railway Branch Hegang Railway Workers' Primary School

Jiamusi Railway Branch Huanan Railway Workers' Children School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.1 Primary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.2 Primary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.3 Primary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.4 Primary School

Jiamusi Railway Branch Langxiang Railway Workers' Children School

Jiamusi Railway Branch Lianjiangkou Railway Workers' Children School

Jiamusi Railway Branch Nancha Railway Workers' Children No.1 Primary School

Jiamusi Railway Branch Nancha Railway Workers' Children No.2 Primary School

Jiamusi Railway Branch Nancha Railway Workers' Children No.3 Primary School

Jiamusi Railway Branch Shuangyashan Railway Workers' Children School

Jiamusi Railway Branch Tangyuan Railway Workers' Children School

Jiamusi Railway Branch Wuying Railway Workers' Children School

Jiamusi Railway Branch Xiaobai Railway Workers' Children School

Jiamusi Railway Branch Yichun Railway Workers' Children Primary School

Mudanjiang Railway Branch Hengdaohezi Railway Workers' Children Primary School

Mudanjiang Railway Branch Jixi Railway Workers' Children Primary School

Mudanjiang Railway Branch Linkou Railway Workers' Children Primary School

Mudanjiang Railway Branch Mishan Railway Workers' Children Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 1 Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 2

Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 3 Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 4 Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 5 Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 6 Primary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 7 Primary School

Mudanjiang Railway Branch Muling Railway Workers' Children Primary School

Mudanjiang Railway Branch Qitaihe Railway Workers' Children School

Mudanjiang Railway Branch Suifenhe Railway Workers' Children Primary School

Mudanjiang Railway Branch West Jixi Railway Workers' Children Primary School

Mudanjiang Railway Branch Yimianpo Railway Workers' Children Primary School

Mudanjiang Railway Bureau Suifenhe Railway Workers' Children Primary School

Qiqihar Railway Branch Anda Primary School

Qiqihar Railway Branch Angangxi Primary School

Qiqihar Railway Branch Daqing Primary School

Qiqihar Railway Branch Fulaerji Primary School

Qiqihar Railway Branch Fuyu Factory Primary School

Qiqihar Railway Branch Fuyu Primary School

Qiqihar Railway Branch Jiangqiao Secondary and Primary School

Qiqihar Railway Branch Laha Primary School

Qiqihar Railway Branch Linyuan Primary School

Qiqihar Railway Branch Longfeng Primary School

Qiqihar Railway Branch Longjiang Primary and Secondary School

Qiqihar Railway Branch Nehe Primary and Secondary School

Qiqihar Railway Branch Nenjiang Primary School

Qiqihar Railway Branch Nianzishan Primary School

Qiqihar Railway Branch Qiqihar No. 1 Primary School

Qiqihar Railway Branch Qiqihar No. 2 Primary School

Qiqihar Railway Branch Qiqihar No. 3 Primary School

Qiqihar Railway Branch Qiqihar No. 4 Primary School

Qiqihar Railway Branch Qiqihar No. 5 Primary School
Qiqihar Railway Branch Qiqihar No. 6 Primary School
Qiqihar Railway Branch Qiqihar No. 7 Primary School
Qiqihar Railway Branch Qiqihar No. 8 Primary School
Qiqihar Railway Branch Ranghu Road Primary School
Qiqihar Railway Branch Sanjianfang Primary school
Qiqihar Railway Branch Shuangshan Primary School
Qiqihar Railway Branch Taikang Primary School
Qiqihar Railway Branch Tailai Primary School
Qiqihar Railway Branch Wolitun Primary School
Qiqihar Railway Branch Yian Primary School
Qiqihar Railway Branch Yinlang Primary School
Qiqihar Railway Branch Yushutun Primary School
Qiqihar Railway Sub Genghis Khan Primary School
Tieli Railway Children Secondary and Primary School
Tieli Railway Primary and Secondary School
Tieli Railway Primary School
Tieli Railway Secondary and Primary School
Tieli Railway Secondary and Primary School
Yitulihe Railway Branch Alihe Workers' Children Primary School
Yitulihe Railway Branch Ganhe Workers' Children Primary School
Yitulihe Railway Branch Genhe Workers' Children Hope School
Yitulihe Railway Branch Jinhe Workers' Children Primary School
Yitulihe Railway Branch Moerdaoge Workers' Children Primary School
Yitulihe Railway Branch Muyuan Workers' Children Primary School
Yitulihe Railway Branch Tulihe Workers' Children Primary School
Yitulihe Railway Branch Wuerqihan Workers' Children Primary School
Yitulihe Railway Branch Yitulihe Workers' Children No.1 Primary School
Yitulihe Railway Branch Yitulihe Workers' Children No.2 Primary School

Harbin Railway Bureau: Secondary School

Harbin Railway Branch Beian Railway Workers' Children Secondary School
Harbin Railway Branch Harbin Railway Workers' Children No. 1 Secondary School
Harbin Railway Branch Harbin Railway Workers' Children No. 2 Secondary School

Harbin Railway Branch Harbin Railway Workers' Children No. 3 Secondary School

Harbin Railway Branch Harbin Railway Workers' Children No. 5 Secondary School

Harbin Railway Branch Harbin Railway Workers' Children No. 7 Secondary School

Harbin Railway Branch Harbin Railway Workers' Children No. 8 Secondary School

Harbin Railway Branch Jucheng Railway Workers' Children Secondary School

Harbin Railway Branch Shuangchengbao Railway Workers' Children Secondary School

Harbin Railway Branch Suihua Railway Workers' Children No. 1 Secondary School

Harbin Railway Branch Suihua Railway Workers' Children No. 2 Secondary School

Jiagedaqi Railway Branch Dayangshu Secondary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.1 Secondary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.2 Secondary School

Jiagedaqi Railway Branch Jiagedaqi Railway Workers' Children No.3 Secondary School

Jiagedaqi Railway Branch Linhai Secondary School

Jiagedaqi Railway Branch Tahe Secondary School

Jiamusi Railway Branch Fujin Railway Workers' Children Secondary School

Jiamusi Railway Branch Hegang Railway Workers' Secondary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.1 Secondary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.2 Secondary School

Jiamusi Railway Branch Jiamusi Railway Workers' Children No.3 Secondary School

Jiamusi Railway Branch Nancha Railway Workers' Children No.1 Secondary School

Jiamusi Railway Branch Nancha Railway Workers' Children No.2 Secondary School

Jiamusi Railway Branch Yichun Railway Workers' Children Secondary School

Mudanjiang Railway Branch Boli Railway Workers' Children Secondary School

Mudanjiang Railway Branch Hengdaohezi Railway Workers' Children Secondary School

Mudanjiang Railway Branch Hulin Railway Workers' Children Secondary School

Mudanjiang Railway Branch Jixi Railway Workers' Children Secondary School

Mudanjiang Railway Branch Linkou Railway Workers' Children Secondary School

Mudanjiang Railway Branch Mishan Railway Workers' Children Secondary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 1 Secondary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 2 Secondary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 3 Secondary School

Mudanjiang Railway Branch Mudanjiang Railway Workers' Children No. 4

Secondary School

Mudanjiang Railway Branch Suifenhe Railway Workers' Children Secondary School

Mudanjiang Railway Branch Vocational Secondary School

Mudanjiang Railway Branch Yimianpo Railway Workers' Children Secondary School

Mudanjiang Railway Bureau Suifenhe Railway Workers' Children Secondary School

Qiqihar Railway Branch Anda Secondary School

Qiqihar Railway Branch Angangxi Secondary School

Qiqihar Railway Branch Fulaerji Secondary School

Qiqihar Railway Branch Fuyu Secondary School

Qiqihar Railway Branch Jiangqiao Primary and Secondary School

Qiqihar Railway Branch Longjiang Primary and Secondary School

Qiqihar Railway Branch Nehe Primary and Secondary School

Qiqihar Railway Branch Nenjiang Secondary School

Qiqihar Railway Branch Qiqihar No. 1 Secondary School

Qiqihar Railway Branch Qiqihar No. 2 Secondary School

Qiqihar Railway Branch Qiqihar No. 3 Secondary School

Qiqihar Railway Branch Qiqihar No. 4 Secondary School

Qiqihar Railway Branch Qiqihar No. 5 Secondary School

Qiqihar Railway Branch Qiqihar No. 6 Secondary School

Qiqihar Railway Branch Qiqihar No. 7 Secondary School

Qiqihar Railway Branch Qiqihar Vocational High School

Qiqihar Railway Branch Ranghu Road Secondary School

Qiqihar Railway Branch Sanjianfang Secondary school

Qiqihar Railway Branch Wolitun Secondary School

Tieli Railway Children Primary and Secondary School

Tieli Railway Children Secondary School

Tieli Railway Primary and Secondary School

Yichun Tieli Railway Children Secondary School

Yitulihe Railway Branch Ganhe Workers' Children Secondary School

Yitulihe Railway Branch Tulihe Workers' Children Secondary School

Yitulihe Railway Branch Wuerqihan Workers' Children Secondary School

Yitulihe Railway Branch Yi Railway Workers' Children No.1 Secondary School

Yitulihe Railway Branch Yi Railway Workers' Children No.2 Secondary School

Harbin Railway Bureau: Others (Technical School, Adult School)

Harbin Railway Branch Harbin Railway Business Service School for Adults

Harbin Railway Branch Harbin Railway Secondary Schools for Adults

Harbin Railway Branch Suihua Railway Train Drivers School

Harbin Railway Branch Teachers College

Harbin Railway Branch Transport Workers School

Harbin Railway Vocational and Technical High School

Jiagedaqi Railway Branch Workers' Specialised Technical School

Jiamusi Railway Branch Teachers College

Jiamusi Railway Technical School

Mudanjiang Railway Technical School

Qiqihar Railway Advance Drivers School

Qiqihar Railway Branch Qiqihar Railway Train Drivers school

Qiqihar Railway Branch Staff School

Qiqihar Railway Branch Teachers College

Qiqihar Railway School of Economics and Management

Qiqihar Railway Technical School

Qiqihar Railway Vocational and Technical School

Shuangyashan Mining Bureau Railway Transportation Workers School

Yitulihe Railway Branch Staff School

Yitulihe Railway Branch Teachers College

Yitulihe Railway Branch Yitulihe Railway Technical School

Shenyang Bureau: Primary School

Baicheng Railway Branch Baicheng Workers' Children No. 1 Primary School

Baicheng Railway Branch Baicheng Workers' Children No. 2 Primary School

Baicheng Railway Branch Baicheng Workers' Children No. 4 Primary School

Baicheng Railway Branch Daan Workers' Children Primary School

Baicheng Railway Branch Debaisi Workers' Children Primary School

Baicheng Railway Branch North Taiping Workers' Children Primary School

Baicheng Railway Branch Qianan Workers' Children Primary School

Baicheng Railway Branch Solon Workers' Children Primary School

Baicheng Railway Branch Taipingchuan Workers' Children Primary School

Baicheng Railway Branch Taonan Workers' Children Primary School

Changchun Railway Experimental Primary School

Changchun Railway Workers' Children No. 2 Primary School

Chaoyangchuan Railway Primary School

Dandong Railway Branch Benxi Railway Workers' Children Primary School

Dandong Railway Branch Dandong Railway Workers' Children No.1 Primary School

Dandong Railway Branch Dandong Railway Workers' Children No.2 Primary School

Dandong Railway Branch Dandong Railway Workers' Children Primary School

Dandong Railway Branch Fenghuangcheng Railway Children Primary School

Dandong Railway Branch Guanshui Railway Workers' Children Primary School

Dehui Railway Primary School

Dunhua Railway Primary School

Jilin Railway Branch Huadian Railway Workers' Children Primary School

Jilin Railway Branch Jiaohe Railway Workers' Children Primary School

Jilin Railway Branch Mingcheng Railway Workers' Children Primary School

Jilin Railway Branch New Station Railway Workers' Children Primary School

Jilin Railway Branch Workers' Children Experimental Primary School

Jilin Railway Branch Workers' Children No. 2 Primary School

Jilin Railway Branch Workers' Children No. 4 Primary School

Jilin Railway Branch Workers' Children No. 5 Primary School

Jilin Railway Branch Workers' Children No. 6 Primary School

Jilin Railway Branch Workers' Children Qipan Primary School

Jilin Railway Branch Yantongshan Railway Workers' Children Primary School

Jinzhou Railway Branch Fuxin Workers' Children No.1 Primary School

Jinzhou Railway Branch Fuxin Workers' Children No.2 Primary School

Jinzhou Railway Branch Fuxin Workers' Children No.3 Primary School

Jinzhou Railway Branch Jinzhou Workers' Children No.1 Primary School

Jinzhou Railway Branch Jinzhou Workers' Children No.2 Primary School

Jinzhou Railway Branch Jinzhou Workers' Children No.3 Primary School

Jinzhou Railway Bureau Chaoyang Workers' Children Primary School

Kuandian Manchu Autonomous County Niumaowu Rural Railway Zicun Primary School

Liaoyuan Railway Primary School

Shenyang Railway Branch Kaiyuan Fushun Railway Workers' Children Primary School

Shenyang Railway Branch Ling Railway Workers' Children Primary School

Shenyang Railway Branch Kaiyuan Railway Workers' Children Primary School

Shenyang Railway Branch Liaoyang Railway Workers' Children Primary School
Shenyang Railway Branch Shenyang Railway Workers' Children No.2 Primary School
Shenyang Railway Branch Shenyang Railway Workers' Children No.3 Primary School
Shenyang Railway Branch Shenyang Railway Workers' Children No.5 Primary School
Shenyang Railway Branch Shenyang Railway Workers' Children No.6 Primary School
Shenyang Railway Branch Shenyang Railway Workers' Children No.7 Primary School
Shenyang Railway Branch Sujiatun Railway Workers' Children No.2 Primary School
Shenyang Railway Experimental Primary School
Shenyang Railway Normal (Teachers) College Primary School
Siping Railway Workers' Children No. 1 Primary School
Siping Railway Workers' Children No. 2 Primary School
Tonghua Railway Branch Experimental Primary School
Tonghua Railway Branch Meihekou Railway Workers' Children No.1 Primary School
Tonghua Railway Branch Meihekou Railway Workers' Children No.2 Primary School
Tonghua Railway Branch Meihekou Railway Workers' Children No.3 Primary School
Tonghua Railway Branch No. 3 Primary School
Tonghua Railway Branch Tonghua Railway Workers' Children No. 1 Primary School
Tonghua Railway Branch Tonghua Railway Workers' Children No. 2 Primary School
Tonghua Railway Branch Tonghua Railway Workers' Children No.3 Primary School
Tonghua Railway Branch Meihekou No. 1 Primary School
Tonghua Railway Branch Meihekou No. 2 Primary School
Zhangwu County Railway Workers' Children Primary School

Shenyang Bureau: Secondary School

Antu Railway Secondary School
Baicheng Railway Branch Baicheng Workers' Children No. 1 Secondary School
Baicheng Railway Branch Baicheng Workers' Children No. 2 Secondary School
Baicheng Railway Branch Baicheng Workers' Children No. 3 Secondary School
Baicheng Railway Branch North Taiping Workers' Children Secondary School
Baicheng Railway Branch Solon Workers' Children Secondary School
Baicheng Railway Branch Taipingchuan Workers' Children Secondary School
Changchun Railway Secondary School
Chaoyangchuan Railway Secondary School
Dandong Railway Branch Benxi Railway Workers' Children Secondary School

Dandong Railway Branch Fenghuangcheng Railway Workers' Children Secondary School
Dehui Railway Secondary School
Dunhua Railway Secondary School
JiLin Railway Branch Jiaohe Railway Workers' Children Secondary School
JiLin Railway Branch Workers' Children No. 1 Secondary School
JiLin Railway Branch Workers' Children No. 3 Secondary School
JiLin Railway Branch Workers' Children No. 4 Secondary School
JiLin Railway Branch Yantongshan Railway Workers' Children Secondary School
Jinzhou Railway Branch Fuxin Workers' Children Secondary School
Jinzhou Railway Branch goubangzi Workers' Children Secondary School
Jinzhou Railway Branch Jinzhou Workers' Children No.6 Secondary School
Jinzhou Railway Branch Jinzhou Workers' Children Secondary School
Shenyang Railway Bureau Changchun Railway Branch Siping Vocational High School
Shenyang Railway Branch Sujiatun Railway Workers' Children No.2 Secondary School
Shenyang Railway Branch Sujiatun Railway Workers' Children No.3 Secondary School
Shenyang Railway Branch Sujiatun Railway Workers' Children No.4 Secondary School
Shenyang Railway Branch Sujiatun Railway Workers' Children Secondary School
Shenyang Railway Experimental Secondary School
Siping Railway Workers' Children Secondary School
Tonghua Railway Branch Meihekou Railway Workers' Children No.1 Secondary School
Tonghua Railway Branch Meihekou Railway Workers' Children No.2 Secondary School
Tonghua Railway Branch Liaoyuan Secondary School
Tonghua Railway Branch Meihekou No. 1 Secondary School
Tonghua Railway Branch Meihekou No. 2 Secondary School
Tonghua Railway Branch Meihekou Technical High School
Tonghua Railway Bureau Meihekou Vocational Techical High School
Zhangwu County Railway Secondary School

Shenyang Bureau: Others (Technical School, Adult School)

Baicheng Railway Branch Baicheng Railway Technical School
Baicheng Railway Branch Baicheng Teachers College
Baicheng Railway Branch Workers’ School
Changchun Railway Transportation Technical School
Dalian Railway Train Drivers School

Dandong Railway Branch Dandong Railway Technical School

Jilin City Railway Transportation Technical School

JiLin Railway Branch Workers' School

Jinzhou Railway Train Drivers School

Shenyang Railway Branch Workers’ School

Tonghua Railway Technical School

Wuhan Railway Specialised Secondary School for Adults

Beijing Bureau: Primary School

Beijing Changxindian Railway Primary School

Beijing Railway Bureau Beijing Railway Workers' Children Experimental Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 1 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 4 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 6 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 7 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 10 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 11 Primary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 12 Primary School

Beijing Railway Bureau Huai Bei Railway Workers' Children Primary School

Beijing Railway Bureau Shacheng Railway Workers' Children School

Changzhi North Railway Workers' Children Primary School

Changzhi Railway Workers' Children Primary School

Chengde Railway Primary School

Datong Railway Bureau Workers' Children No. 1 Primary School

Datong Railway Bureau Workers' Children No. 2 Primary School

Datong Railway Bureau Workers' Children No. 3 Primary School

Datong Railway Bureau Workers' Children No. 4 Primary School

Datong Railway Bureau Zhangzhuang West Workers' Children Primary School

Houma North Railway Workers' Children Primary School

Huairen Railway Workers' Children Primary School

Kouquan Railway Workers' Children Primary School

Lin Railway Branch Jiexiu No. 1 Primary School

Lin Railway Branch Jiexiu No. 2 Primary School

Linfen Railway Branch Workers' Children No. 1 Primary School
Linfen Railway Branch Workers' Children No. 2 Primary School
Linfen Railway Branch Workers' Children No. 3 Primary School
Pingwang Railway Workers' Children Primary School
Shijiazhuang Railway Bureau Dingzhou Railway Workers' Children No. 1 Primary School
Shijiazhuang Railway Bureau Dingzhou Railway Workers' Children No. 3 Primary School
Shijiazhuang Railway Bureau Dingzhou Railway Workers' Children Primary School
Shijiazhuang Railway Bureau Handan Railway Primary School
Shijiazhuang Railway Bureau Hengshui Railway Workers' Children Primary School
Shijiazhuang Railway Bureau Matau Railway Primary School
Shouyang County Railway Primary School
Shouyang Railway Workers' Children Primary School
Shouyang Railway Workers' Children Primary School
Shuozhou Railway Workers' Children Primary School
Shuozhou Railway Workers' Children Primary School Dahsing Campus
Taiyuan Railway Branch Gujiao Workers' Children Primary School
Taiyuan Railway Branch Gujiao Workers' Children Primary School
Taiyuan Railway Branch Lingqiu Railway Hope Primary School
Taiyuan Railway Branch North Station Workers' Children Primary School
Taiyuan Railway Branch Workers' Children No. 1 Primary School
Taiyuan Railway Branch Workers' Children No. 2 Primary School
Taiyuan Railway Branch Workers' Children No. 3 Primary School
Taiyuan Railway Branch Workers' Children No. 4 Primary School
Taiyuan Railway Branch Workers' Children No. 5 Primary School
Taiyuan Railway Branch Workers' Children No. 6 Primary School
Taiyuan Railway Branch Workers' Children No. 7 Primary School
Taiyuan Railway Branch Workers' Children No. 9 Primary School
Taiyuan Railway Branch Workers' Children No. 10 Primary School
Taiyuan Railway Branch Yushe Dongchen Primary School
Tianjin Railway Branch Tangshan Railway Workers' Children No. 1 Primary School
Tianjin Railway Branch Tianjin Workers' Children No. 1 Primary School
Tianjin Railway Branch Tianjin Workers' Children No. 2 Primary School
Tianjin Railway Branch Tianjin Workers' Children No. 3 Primary School
Tianjin Railway Branch Tianjin Workers' Children No. 4 Primary School

Tianjin Railway Branch Tianjin Workers' Children No. 6 Primary School

Tianjin Railway Branch Tianjin Workers' Children No. 8 Primary School

Tianjin Railway Branch Tianjin Workers' Children No. 9 Primary School

Xinzhou Railway Workers' Children School

Yuanping Railway Workers' Children Primary School

Yuanping Railway Workers' Children School

Yuci Railway Workers' Children No. 1 Primary School

Yuci Railway Workers' Children No. 2 Primary School

Yuci Railway Workers' Children No. 3 Primary School

Yuncheng Railway Workers' Children Primary School

Zhangjiakou Qiaodong District Xie Jie Primary School

Zhangjiakou Xuanhua District Railway Southern Primary School

Beijing Bureau: Secondary School

Beijing Changxindian Railway Secondary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 2 Secondary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 3 Secondary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 4 Secondary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 5 Secondary School

Beijing Railway Bureau Beijing Railway Workers' Children No. 6 Secondary School

Beijing Railway Bureau General Education Division, Chengde Railway Secondary School

Beijing Railway Bureau Huai Bei Railway Workers' Children Secondary School

Beijing Railway Bureau Zhangjiakou Railway Workers' Children No.1 Secondary School

Beijing Railway Bureau Zhangjiakou Railway Workers' Children No.2 Secondary School

Beijing Railway Bureau, Tianjin Branch Education Division Feng Run Railway Children Secondary School

Changzhi North Railway Workers' Children Secondary School

Datong Railway Bureau Chawu Workers' Children Secondary School

Datong Railway Bureau Daqin Railway Company Hudong Railway Workers' Children Secondary School

Datong Railway Bureau Workers' Children No. 1 Secondary School

Datong Railway Bureau Workers' Children No. 2 Secondary School

Datong Railway Bureau Zunhua North Workers' Children Secondary School

Houma North Railway Workers' Children Secondary School

Jincheng North Railway Workers' Children Secondary School

Lin Railway Branch Jiexiu Railway Workers' Children Secondary School

Linfen Railway Branch Workers' Children No. 1 Secondary School

Linfen Railway Branch Workers' Children No. 2 Secondary School

Nanjing Railway No. 1 Secondary School

Rail Three Engineering Corps Yanjiao Railway Secondary School

Shanhaiguan Railway Secondary School

Shijiazhuang Railway Branch Baoding Railway Secondary School

Shijiazhuang Railway Bureau Dingzhou Railway Workers' Children No. 2 Secondary School

Shijiazhuang Railway Bureau Dingzhou Railway Workers' Children Secondary School

Shijiazhuang Railway Bureau Handan Railway Secondary School

Shijiazhuang Railway Bureau Hengshui Railway Secondary School

Shijiazhuang Railway Bureau Xingtai Railway Secondary School

Shuozhou Railway Workers' Children Secondary School

Taiyuan Railway Branch Workers' Children No. 1 Secondary School

Taiyuan Railway Branch Workers' Children No. 2 Secondary School

Taiyuan Railway Branch Workers' Children No. 3 Secondary School

Taiyuan Railway Branch Workers' Children No. 4 Secondary School

Tianjin Railway Branch Tanggu Workers' Children Secondary School

Tianjin Railway Branch Tianjin Workers' Children No. 1 Secondary School

Tianjin Railway Branch Tianjin Workers' Children No. 2 Secondary School

Tianjin Railway Branch Tianjin Workers' Children No. 3 Secondary School

Tianshui Railway Workers' Children No.2 Secondary School

Yuanping Railway Workers' Children Secondary School

Yuci Railway Children Secondary School

Yuci Railway Workers' Children Secondary School

Yuncheng Railway Workers' Children Secondary School

Beijing Bureau: Others (Technical School, Adult School)

Beijing Railway Bureau Technical School

Datong Railway Bureau Workers School

Datong Railway Technical School

Hengshui Railway Electrification School

Linfen Railway Branch Houma Railway Technical School

Linfen Railway Branch Houma Workers School

Shijiazhuang Railway Bureau Shijiazhuang Railway Technical School

Shijiazhuang Railway Bureau Workers Education Central School

Taiyuan Railway Branch Xinzhou Railway Technical School

Tianjin Railway Secondary Schools for Adults

Hohhot Bureau: Primary School

Hailar Railway Branch Blzq Railway Workers' Children Primary School

Hailar Railway Branch Bugt Workers' Children No. 1 Primary School

Hailar Railway Branch Bugt Workers' Children No. 2 Primary School

Hailar Railway Branch Hailar Railway Workers' Children No. 1 Primary School

Hailar Railway Branch Hailar Railway Workers' Children No. 2 Primary School

Hailar Railway Branch Hailar Railway Workers' Children No. 3 Primary School

Hailar Railway Branch Huoche Railway Workers' Children Primary School

Hailar Railway Branch Manchuria Railway Workers' Children No. 1 Primary School

Hailar Railway Branch Manchuria Railway Workers' Children No. 2 Primary School

Hailar Railway Branch Yakeshi Railway Workers' Children No. 1 Primary School

Hailar Railway Branch Yakeshi Workers' Children No. 2 Primary School

Hohhot Islam District Railway Primary School

Hohhot Railway Bureau Baotou North Workers' Children Primary School

Hohhot Railway Bureau Baotou Workers' Children Experimental Primary School

Hohhot Railway Bureau Baotou Workers' Children No. 1 Primary School

Hohhot Railway Bureau Baotou Workers' Children No. 3 Primary School

Hohhot Railway Bureau Baotou Workers' Children No. 4 Primary School

Hohhot Railway Bureau Baotou Workers' Children No. 5 Primary School

Hohhot Railway Bureau Baotou Workers' Children No. 6 Primary School

Hohhot Railway Bureau Enkhsaikhan Tara Workers' Children Primary School

Hohhot Railway Bureau Hohhot Workers' Children No. 1 Primary School

Hohhot Railway Bureau Hohhot Workers' Children No. 2 Primary School

Hohhot Railway Bureau Hohhot Workers' Children No. 3 Primary School

Hohhot Railway Bureau Hohhot Workers' Children No. 6 Primary School

Hohhot Railway Bureau Hohhot Workers' Children No. 7 Primary School

Hohhot Railway Bureau Jining Workers' Children No. 1 Primary School

Hohhot Railway Bureau Jining Workers' Children No. 2 Primary School

Hohhot Railway Bureau Jining Workers' Children No. 3 Primary School

Hohhot Railway Bureau Jining Workers' Children No. 4 Primary School

Hohhot Railway Bureau Jining Workers' Children No. 5 Primary School

Hohhot Railway Bureau Linhe Workers' Children Primary School

Hohhot Railway Bureau Tumuertai Workers' Children Primary School

Hohhot Railway Bureau Wuhai Workers' Children Primary School

Tongliao Railway Branch Chifeng Railway Workers' Children No. 1 Primary School

Tongliao Railway Branch Chifeng Railway Workers' Children No.3 Primary School

Tongliao Railway Branch Naiman Railway Workers' Children Primary School

Tongliao Railway Branch School Baiyinhushuo Railway Workers' Children Primary School

Tongliao Railway Branch Siheyong Railway Workers' Children Primary School

Tongliao Railway Branch Tongliao Railway Workers' Children No.1 Primary School

Tongliao Railway Branch Tongliao Railway Workers' Children No.2 Primary School

Tongliao Railway Branch Tongliao Railway Workers' Children No.3 Primary School

Tongliao Railway Branch Xinlitun Railway Workers' Primary School

Tongliao Railway Branch Zhangwu Railway Workers' Children Primary School

Tongliao Railway Branch Zhengjiatun Railway Workers' Children Primary School

Tongliao Railway Branch Zhusihua Railway Workers' Primary School

Hohhot Bureau: Secondary School

Hailar Railway Branch Bugt Workers' Children No. 1 Secondary School

Hailar Railway Branch Bugt Workers' Children No. 2 Secondary School

Hailar Railway Branch Hailar Railway Workers' Children No. 2 Secondary School

Hailar Railway Branch Hailar Workers' Children No. 1 Vocational Secondary School

Hailar Railway Branch Hailar Workers' Children Vocational Senior Secondary School

Hailar Railway Branch Huoche Workers' Children Secondary School

Hailar Railway Branch Manchuria Railway Workers' Children Secondary School

Hailar Railway Branch Yakeshi Railway Workers' Children Secondary School

Hailar Railway Branch Zhalantun Railway Workers' Children Secondary School

Hailar Railway Branch Zhalantun Workers' Children Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 1 Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 2 Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 3 Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 5 Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 6 Secondary School

Hohhot Railway Bureau Baotou Workers' Children No. 7 Secondary School

Hohhot Railway Bureau Enkhsaikhan Tara Workers' Children Secondary School

Hohhot Railway Bureau Erlianhaote Workers' Children Secondary School

Hohhot Railway Bureau Fengzhen Workers' Children Secondary School

Hohhot Railway Bureau Hohhot Workers' Children No. 1 Secondary School

Hohhot Railway Bureau Hohhot Workers' Children No. 2 Secondary School

Hohhot Railway Bureau Hohhot Workers' Children No. 3 Secondary School

Hohhot Railway Bureau Hohhot Workers' Children No. 5 Secondary School

Hohhot Railway Bureau Jining Workers' Children No. 1 Secondary School

Hohhot Railway Bureau Jining Workers' Children No. 2 Secondary School

Hohhot Railway Bureau Jining Workers' Children No. 3 Secondary School

Hohhot Railway Bureau Linhe Workers' Children Secondary School

Hohhot Railway Bureau Sarazzi Workers' Children Secondary School

Hohhot Railway Bureau Wuhai West Workers' Children Secondary School

Hohhot Railway Bureau Wuhai Workers' Children Secondary School

Hohhot Railway Bureau Zhuozishan Workers' Children Secondary School

Tongliao Railway Branch Chifeng Railway Workers' Children Secondary School

Tongliao Railway Branch Baolongshan Workers' Children Secondary School

Tongliao Railway Branch School Baiyinhushuo Railway Workers' Children Secondary School

Tongliao Railway Branch Tongliao Railway Workers' Children Secondary School

Tongliao Railway Branch Zhengjiatun Railway Workers' Children Secondary School

Hohhot Bureau: Others (Technical School, Adult School)

Hailar Railway Branch Teachers College

Hailar Railway Branch Technical School

Hohhot Railway Bureau Baotou Workers’ School

Hohhot Railway Bureau Drivers School

Hohhot Railway Bureau Higher School for Adults

Hohhot Railway Bureau Jining Workers School

Tongliao Railway Technical School

Zhengzhou Bureau: Primary School

Anyang Railway Workers' Children No.1 Primary School

Anyang Railway Workers' Children No.2 Primary School

Baofeng Railway Workers' Children Primary School

Changyuan Railway Workers' Children Primary School

Chengzhou Zhongyuan District Railway Primary School

Daiwang Railway Workers' Children Primary School

Dongming Railway Workers' Children Primary School

Hebi Railway Workers' Children Primary School

Hengshan County Gaozhen Railway Primary School

Huanghe South Railway Workers' Children Primary School

Hunan Anfengxiang Railway Wan Primary School

Jiaozuo Railway Workers' Children Primary School

Kaifeng Railway Workers' Children No.1 Primary School

Kaifeng Railway Workers' Children No.2 Primary School

Luoyang Railway Branch Nanyang Railway Primary School

Luoyang Railway Branch Workers' Children No.2 Primary School

Luoyang Railway Workers' Children No.1 Primary School

Luoyang Railway Workers' Children No.3 Primary School

Luoyang Railway Workers' Children No.4 Primary School

Luoyang Railway Workers' Children No.5 Primary School

Mianchi Railway Workers' Children Primary School

Mixian Railway Workers' Children Primary School

Qichun Railway Economic Development Zone Fengshulin Primary School

Sanmenxia Railway Workers' Children Primary School

Sanmenxia West Railway Workers' Children Primary School

Shaanxi Coal Construction Division Railway Engineering Children School

Shangqiu Railway Workers' Children Primary School

Tangyin Railway Workers' Children Primary School

The Railway Authority of The Henan Province Zhoukou Branch Workers' Children School

Wu Railway Branch Hanyang Railway Children Primary School

Wu Railway Branch Hongshan Railway Workers' Children Primary School

Wuhan Railway Branch Jiangan Railway No.1 School
Wu Railway Branch Jigongshan Railway Workers' Children Primary School
Wu Railway Branch Luohe Railway Workers' Children Primary School
Wu Railway Branch Mingfan Railway Workers' Children No.1 Primary School
Wu Railway Branch Mingfan Railway Workers' Children Primary School
Wu Railway Branch Pingdingshan East Railway Workers' Children Primary School
Wu Railway Branch Pingdingshan Railway Workers' Children Primary School
Wu Railway Branch Queshan Railway Workers' Children Primary School
Wu Railway Branch Wuchang Railway Workers' Children No.2 Primary School
Wu Railway Branch Wuchang Railway Workers' Children No.4 Primary School
Wu Railway Branch Xinyang Railway Workers' Children No.2 Primary School
Wu Railway Branch Yangxin Railway Primary School
Wu Railway Branch Zhifang Railway Workers' Children Primary School
Xi'an Railway Branch Baoji Railway Workers' Children No.1 Primary School
Xi'an Railway Branch Baoji Railway Workers' Children No.2 Primary School
Xi'an Railway Branch Baoji Railway Workers' Children No.3 Primary School
Xi'an Railway Branch Caijiapo Railway Primary School
Xi'an Railway Branch Doujitai Railway Workers' Children Primary School
Xi'an Railway Branch Guozhen Workers' Children Primary School
Xi'an Railway Branch Hengbahe Workers' Children Primary School
Xi'an Railway Branch Lueyang Workers' Children Primary School
Xi'an Railway Branch Meijiaping Workers' Children Primary School
Xi'an Railway Branch Mengyuan Workers' Children Primary School
Xi'an Railway Branch Sanyuan Workers' Children Primary School
Xi'an Railway Branch Tongchuan South Workers' Children Primary School
Xi'an Railway Branch Tuoshi Central Railway Primary School
Xi'an Railway Branch Weinan Workers' Children Primary School
Xi'an Railway Branch Wolong Temple Workers' Children Primary School
Xi'an Railway Branch Wugong Workers' Children Primary School
Xi'an Railway Branch Xi'an Railway Workers' Children No.1 Primary School
Xi'an Railway Branch Xi'an Railway Workers' Children No.2 Primary School
Xi'an Railway Branch Xi'an Railway Workers' Children No.3 Primary School
Xi'an Railway Branch Xi'an Railway Workers' Children No.4 Primary School
Xi'an Railway Branch Xi'an Railway Workers' Children No.5 Primary School

Xi'an Railway Branch Xi'an Railway Workers' Children No.6 Primary School

Xi'an Railway Branch Xinfengzhen Workers' Children Primary School

Xi'an Railway Branch Xingping Workers' Children Primary School

Xi'an Railway Branch Yangpingguan Workers' Children Primary School

Xi'an Railway Branch Yanliang Workers' Children Primary School

Xi'an Railway Branch Yao County Workers' Children Primary school

Xi'an Railway Branch Yongledian Workers' Children Primary School

Xi'an Railway Railway Signal Factory Children Primary School

Xiangcheng County Fanhuxiang Primary School

Xiangfan Railway Branch Jingmen Railway Workers' Children Primary School

Xiangfan Railway Branch Suizhou Railway Workers' Children Primary School

Xiangfan Railway Branch Xiangfan North Railway Children No.2 Primary School

Xiangfan Railway Branch Xiangfan Railway Children No.1 Primary School

Xinxiang Railway Workers' Children No.1 Primary School

Xinxiang Railway Workers' Children No.2 Primary School

Xinxiang Railway Workers' Children No.3 Primary School

Xinxiang Railway Workers' Children No.4 Primary School

Xishui County Zhu Dianxiang Railway Village Primary School

Yichang Railway Dam Primary School

Yueshan Railway Workers' Children Primary School

Zhengzhou Railway Bureau Xi'an Railway Branch Lintong Workers' Children No.1 Primary School

Zhengzhou Railway Bureau Xi'an Railway Branch Lintong Workers' Children No.2 Primary School

Zhengzhou Railway Workers' Children No.1 Primary School

Zhengzhou Railway Workers' Children No.2 Primary School

Zhengzhou Railway Workers' Children No.3 Primary School

Zhengzhou Railway Workers' Children No.4 Primary School

Zhengzhou Railway Workers' Children No.6 Primary School

Zhengzhou Railway Workers' Children No.7 Primary School

Zhengzhou Railway Workers' Children No.8 Primary School

Zhengzhou Railway Workers' Children No.9 Primary School

Zhengzhou Railway Workers' Children No.10 Primary School

Zhengzhou Railway Workers' Children No.11 Primary School

Zhengzhou Railway Workers' Children No.12 Primary School

Zhengzhou Bureau: Secondary School

Ankang Tiexing Railway Junior Secondary School

Anyang Railway Workers' Children Secondary School

Baofeng Railway Workers' Children Secondary School

Gong County Railway Workers' Secondary School

Jiaozuo Railway Workers' Children Secondary School

Kaifeng Railway Workers' Children Secondary School

Lingbao Railway Workers' Children Secondary School

Luoyang Railway Higher Vocational Secondary School

Luoyang Railway Workers' Children No.1 Secondary School

Luoyang Railway Workers' Children No.3 Secondary School

Luoyang Railway Workers' Children No.4 Secondary School

Nanyang Railway Workers' Children Secondary School

Sanmenxia Railway Workers' Children Secondary School

Sanmenxia West Railway Workers' Children Secondary School

Shangqiu Railway Workers' Children Secondary School

The Ministry of Railways Railway Tunnel Engineering Bureau Luoyang Railway Secondary School

Wu Railway Branch Guangshui Railway Workers' Children Secondary School

Wu Railway Branch Hankou Railway Workers' Children Secondary School

Wu Railway Branch Huayuan Railway Workers' Children Secondary School

Wu Railway Branch Luohe Railway Workers' Children Secondary School

Wu Railway Branch Pingdingshan Railway Workers' Children Secondary School

Wu Railway Branch Puqi Railway Secondary School

Wu Railway Branch Quantang Railway Workers' Children Secondary School

Wu Railway Branch Tieshan Railway Secondary School

Wu Railway Branch Xianning Railway Secondary School

Wu Railway Branch Xiaogan Railway Children Secondary School

Wu Railway Branch Xinyang Railway Workers' Children No.1 Secondary School

Wu Railway Branch Xinyang Railway Workers' Children No.2 Secondary School

Wu Railway Branch Zhumadian Railway Workers' Children Secondary School

Wuhan Railway Branch Hankou Railway Workers' Children Secondary School

Wuhan Railway Branch Hongshan Railway Workers' Children Secondary School

Wuhan Railway Branch Jiangan Railway Workers' Children No.3 Secondary School

Wuhan Railway Branch Jiangan Railway Workers' Children No.4 Secondary School

Wuhan Railway Branch Jiangan Vocational Senior Secondary School

Wuhan Railway Branch Wu East Railway Workers' Children Secondary School

Wuhan Railway Branch Wu South Railway Workers' Children Secondary School

Xi'an Railway Branch Baoji Railway Workers' Children No.1 Secondary School

Xi'an Railway Branch Baoji Railway Workers' Children No.2 Secondary School

Xi'an Railway Branch Caijiapo Workers' Children Secondary School

Xi'an Railway Branch Fengzhou Workers' Children Secondary School

Xi'an Railway Branch Hancheng Workers' Children Secondary School

Xi'an Railway Branch Lintong Workers' Children Secondary School

Xi'an Railway Branch Lueyang Workers' Children Secondary School

Xi'an Railway Branch Sanyuan Railway Secondary School

Xi'an Railway Branch Weinan Workers' Children Secondary School

Xi'an Railway Branch Xi'an City Workers' Children No.1 Secondary School

Xi'an Railway Branch Xi'an City Workers' Children No.3 Secondary School

Xi'an Railway Branch Xi'an City Workers' Children No.4 Secondary School

Xi'an Railway Branch Xi'an City Workers' Children No.5 Secondary School

Xi'an Railway Branch Xi'an City Workers' Children No.6 Secondary School

Xi'an Railway Branch Xianyang Workers' Children Secondary School

Xi'an Railway Railway Signal Factory Children Secondary School

Xiangfan Railway Branch Jingmen Railway Workers' Children Secondary School

Xiangfan Railway Branch Liuliping Railway Workers' Children Secondary School

Xiangfan Railway Branch Suizhou Railway Workers' Children Secondary School

Xiangfan Railway Branch Xiangfan North Railway Children Secondary School

Xiangfan Railway Branch Xiangfan Railway Children No.1 Secondary School

Xiangfan Railway Branch Xiangfan Railway Children No.2 Secondary School

Xiangfan Railway Branch Xiangfan Railway Children No.3 Secondary School

Xiangfan Railway Branch Xiangfan Railway Children No.4 Secondary School

Xiangfan Railway Branch Yangtze River Port Railway Workers' Children Secondary School

Xiangfan Railway Branch Zhijiang Railway Workers' Children Secondary School

Xinxiang Railway Workers' Children No.1 Secondary School

Xinxiang Railway Workers' Children No.2 Secondary School

Xinxiang Railway Workers' Children No.3 Secondary School

Xuchang Railway Workers' Children Secondary School

Yueshan Railway Workers' Children Secondary School

Zhengzhou Railway Workers' Children No.1 Secondary School

Zhengzhou Railway Workers' Children No.2 Secondary School

Zhengzhou Railway Workers' Children No.4 Secondary School

Zhengzhou Railway Workers' Children No.5 Secondary School

Zhengzhou Railway Workers' Children No.6 Secondary School

Zhengzhou Railway Workers' Children No.7 Secondary School

Zhengzhou Railway Workers' Children No.8 Secondary School

Zhengzhou Bureau: Others (Technical School, Adult School)

Baoji Railway Train Drivers School

Luoyang Railway Technical School

Wuhan Railway Adult Health Secondary School

Wuhan Railway Drivers School

Xi'an Railway Branch Baoji Railway Technical School

Xi'an Railway Branch Xi'an Workers' School

Xi'an University for Railway Transport Workers

Xiangfan Railway Technical School

Zhengzhou Railway Technical School

Zhengzhou Railway Transporation Technical School

Jinan Bureau: Primary School

Fangzi Railway Workers' Children Primary School

Guoyang County Railway Workers' Primary School

Jiancun Railway Workers' Children Primary School

Jinan Railway Bureau Teng County Railway Workers' Children School

Jinan Railway Workers' Children No.1 Primary School

Jinan Railway Workers' Children No.2 Primary School

Jinan Railway Workers' Children No.3 Primary School

Jinan Railway Workers' Children No.4 Primary School

Jinan Railway Workers' Children No.5 Primary School

Jinan Railway Workers' Children No.6 Primary School
Jinan Railway Workers' Children No.7 Primary School
Jinan Railway Workers' Children No.8 Primary School
Jinan Railway Workers' Children No.9 Primary School
Laiwu Railway Workers' Children Primary School
Linyi Railway Workers' Children Primary School
Linzi Railway Workers' Children Primary School
Qingdao Railway Workers' Children No.1 Primary School
Qingdao Railway Workers' Children No.2 Primary School
Rizhao Railway Workers' Children Primary School
Taian Railway Workers' Children Primary School
Tongling Railway Primary School
Xinwen Railway Workers' Children Primary School
Yanzhou Railway Workers' Children Primary School
Yucheng Railway Workers' Children School
Zibo Railway Workers' Children Primary School

Jinan Bureau: Secondary School

Jinan Railway Bureau Yueyang Workers' Children Secondary School
Jinan Railway Workers' Children No.1 Secondary School
Jinan Railway Workers' Children No.3 Secondary School
Jinan Railway Workers' Children No.4 Secondary School
Jinan Railway Workers' Children No.5 Secondary School
Jinan Railway Workers' Children Secondary School
Linyi Railway Workers' Children Secondary School
Qingdao Railway Workers' Children No.1 Secondary School
Qingdao Railway Workers' Children No.2 Secondary School
Rizhao Railway Workers' Children Secondary School
Taion Railway Workers' Children Secondary School
Yanzhou Railway Workers' Children Secondary School
Zibo Railway Workers' Children Secondary School

Jinan Bureau: Others (Technical School, Adult School)

Jinan Railway Adult Health Secondary health School (Division)

Jinan Railway Specialising Secondary School for Adults

Jinan Railway Drivers School

Jinan Railway Mechanical School

Jinan Railway Teachers College

Jinan Railway Technical School

Jinan Railway Yanzhou Workers School

Zibo Railway Technical School

Shanghai Bureau: Primary School

Bengbu Railway Branch Bengbu Railway Workers' Children No.1 Primary School

Bengbu Railway Branch Bengbu Railway Workers' Children No.2 Primary School

Bengbu Railway Branch Bengbu Railway Workers' Children No.3 Primary School

Bengbu Railway Branch Bengbu Railway Workers' Children No.5 Primary School

Bengbu Railway Branch Bozhou Railway Workers' Children Primary School

Bengbu Railway Branch Chao Railway Workers' Children Primary School

Bengbu Railway Branch Chuzhou Railway Workers' Children School

Bengbu Railway Branch Fuyang Railway Workers' Children Primary School

Bengbu Railway Branch Guoyang Railway Workers' Children Primary School

Bengbu Railway Branch Guzhen Railway Workers' Children Primary School

Bengbu Railway Branch Hefei Railway Workers' Children No.1 Primary School

Bengbu Railway Branch Hefei Railway Workers' Children No.2 Primary School

Bengbu Railway Branch Huainan Railway Workers' Children Primary School

Bengbu Railway Branch Jiulonggang Railway Workers' Children Primary School

Bengbu Railway Branch Qinglongshan Railway Workers' Children School

Bengbu Railway Branch Shuijiahu Railway Workers' Children Primary School

Bengbu Railway Branch Wuhu North Railway Workers' Children School

Bengbu Railway Branch Xiu Count Railway Workers' Children School

Bengbu Railway Branch Yuxikou Railway Workers' Children Primary School

Bengbu Railway Bureau Fuyang Railway Workers' Children Primary School

Hangzhou Gate Railway School

Hangzhou Railway No.1 Primary School

Hangzhou Railway No.4 Primary School

Hangzhou Railway No.5 Primary School

Jinhua Railway Primary School

Quzhou Railway Primary School

Shanghai Railway Bureau Workers' Children No. 6 Primary School

Zhejiang Xiaoshan Railway school

Zhejiang Zhuji Railway Primary School

Shanghai Bureau: Secondary School

Bengbu Railway Branch Bengbu Railway Workers' Children Secondary School

Bengbu Railway Branch Bengbu Railway Workers' No.2 Children Secondary School

Bengbu Railway Branch Bengbu Railway Workers' No.3 Children Secondary School

Bengbu Railway Branch Fuyang Railway Workers' Children Secondary School

Bengbu Railway Branch Hefei Railway Workers' Children Secondary School

Bengbu Railway Branch Huainan Railway Workers' Children Secondary School

Bengbu Railway Bureau Fuyang Railway Workers' Children Secondary School

Hangzhou Railway Secondary School

Jinhua Railway Secondary School

Shanghai Railway No.1 Secondary School Division

Shanghai Bureau: Others (Technical School, Adult School)

Bengbu Railway Branch Workers School

Bengbu Railway Technical School

Hangzhou Railway Vocational School

Hangzhou Railway Workers School

Jiaxing Railway Technical School

Shanghai Railway Bureau Secondary School for Adults

Shanghai Railway Bureau Workers' School

Shanghai Railway Vocational and Technical School

Nanchang Bureau: Primary School

Feng City Railway Xiangaihu Primary School

Feng City Railway Xiangbeishang Primary School

Feng City Railway Xianggangbian Primary School

Feng City Railway Xianghaoyuan Primary School

Feng City Railway Xianghongxing Primary School

Feng City Railway Xianghuachang Primary School

Feng City Railway Xiangjinggang Primary School
Feng City Railway Xiangliaoqiao Primary School
Feng City Railway Xiangqingfeng Primary School
Feng City Railway Xiangweidong Primary School
Feng City Railway Xiangxiangyang Primary School
Feng City Railway Xiangxinyu Primary School
Feng City Railway Xiangyangtong Primary School
Feng City Railway Xiangyuanbei Primary School
Fengcheng Railway Central Primary School
Fuzhou Railway Workers' Children No.2 Primary School
Fuzhou Railway Experimental Primary School
Laizhou Railway Workers' Children Primary School
Lean County Gongxi Town Railway Primary School
Nanchang Railway Bureau Guixi Railway Primary School
Nanchang Railway Bureau Jingdezhen Railway Primary School
Nanchang Railway Bureau Pingxiang Railway No.1 Primary School
Nanchang Railway Bureau Pingxiang Railway No.2 Primary School
Nanchang Railway Bureau Railway No.1 Primary School
Nanchang Railway Bureau Railway No.2 Primary School
Nanchang Railway Bureau Xinyu Railway Primary School
Nanchang Railway Bureau Yichun Railway Workers' Children Primary School
Nanchang Railway Bureau Yingtan Railway No.1 Primary School
Nanchang Railway Bureau Yingtan Railway No.2 Primary School
Nanchang Railway Bureau Yingtan Railway No.3 Primary School
Nanchang Railway Bureau Yingtan Railway Workers' Children No.2 School
Nanchang Railway Bureau Yushan Cement Plant Children School
Nanchang Railway Bureau Yushan Railway Primary School
Nanchang Railway Bureau Zhangshu Railway Workers' Children School
Raofeng Farm Railway Primary School
Sanming Railway Workers' Children Primary School
Shaowu Railway Workers' Children Central Primary School
Xinjian County Shengmi Railway Primary School
Yongan Railway Workers' Children Central Primary School
Yongan Railway Workers' Children No.2 Primary School

Zhangping Railway Workers' Children Primary School

Zhangzhou Railway Workers' Children Primary School

Nanchang Bureau: Secondary School

Fengcheng Railway Central Junior Secondary School

Fuzhou Railway Branch Fuzhou Railway Workers' Children Secondary School

Fuzhou Railway Branch Guokeng Railway Workers' Children Secondary School

Fuzhou Railway Branch Nanping Railway Workers' Children Secondary School

Fuzhou Railway Branch Shaowu Ralway Workers' Children Secondary School

Fuzhou Railway Branch Xiamen Railway Workers' Children Secondary School

Fuzhou Railway Branch Yongan Railway Workers' Children Secondary School

Fuzhou Railway Branch Zhangping Railway Workers' Children Secondary School

Nanchang Railway Bureau Fenyi Railway Secondary School

Nanchang Railway Bureau Jingdezhen Railway Secondary School

Nanchang Railway Bureau Jiujiang Railway Children Secondary School

Nanchang Railway Bureau Pingxiang Railway Secondary School

Nanchang Railway Bureau Railway No.1 Secondary School

Nanchang Railway Bureau Railway No.2 Secondary School

Nanchang Railway Bureau Shangrao Railway Secondary School

Nanchang Railway Bureau Shangrao Railway Workers' Children Secondary School

Nanchang Railway Bureau Xiangtang Railway Children Secondary School

Nanchang Railway Bureau Xinyu Railway Children Secondary School

Nanchang Bureau: Others (Technical School, Adult School)

Fuzhou Railway Technical School

Nanchang Railway Bureau Nanchang Executives Schools

Nanchang Railway Bureau Technical School

Guangzhou Railway Group Corporation: Primary School

Changsha Railway Company Linxiang Railway Primary School

Changsha Railway Corporation Changsha Railway No.1 Primary School

Changsha Railway Corporation Changsha Railway No.4 Primary School

Changsha Railway Corporation Changsha Railway No.5 Primary School

Changsha Railway Corporation Chenzhou North Railway Primary School

Changsha Railway Corporation Chenzhou Railway Primary School

Changsha Railway Corporation Hengyang Railway No.3 Primary School

Changsha Railway Corporation Hengyang Railway No.4 Primary School

Changsha Railway Corporation Hengyang Railway No.5 Primary School

Changsha Railway Corporation Hengyang Railway No.7 Primary School

Changsha Railway Corporation Hengyang Railway No.8 Primary School

Changsha Railway Corporation Hengyang Railway Primary School

Changsha Railway Corporation Loudi Railway Primary School

Changsha Railway Corporation Lukoupu Railway No.1 Primary School

Changsha Railway Corporation Xiangtan East Railway Children School

Changsha Railway Corporation Xiangtan Railway Primary School

Changsha Railway Corporation Yueyang North Railway Primary School

Changsha Railway Corporation Yueyang Railway Primary School

Changsha Railway Corporation Zhuzhou Railway No.1 Primary School

Changsha Railway Corporation Zhuzhou Railway No.2 Primary School

Changsha Railway Corporation Zhuzhou Railway No.3 Primary School

Guangzhou Railway Corporation Guangzhou Railway No.1 Primary School

Guangzhou-Shenzhen Railway Industrial Development Corporation Shenzhen Railway Primary School

Hainan Railway Primary School

Huaihua Railway Corporation Dizhuang Primary School

Huaihua Railway Corporation No.1 Primary School

Huaihua Railway Corporation No.2 Primary School

Huaihua Railway Corporation No.3 Primary School

Huaihua Railway Corporation Xinhua Primary School

Huaihua Railway Corporation Zhangjiajie Primary School

Hunan Province, Changde City, Hanshou County, Xinxing Village Railway Primary School

Lechang Zhanglai County Lingkou Railway Hope Primary School

Maoming Railway Children School

Xupu County Guanyinge School Zone Railway Bay Primary School

Yuanling Xikou Railway Pingcun Primary School

Zhanjiang Railway Primary School

Guangzhou Railway Group Corporation: Secondary School

Changsha Railway Corporation Changsha Railway No.1 Secondary School

Changsha Railway Corporation Changsha Railway No.2 Secondary School

Changsha Railway Corporation Chenzhou Railway Secondary School

Changsha Railway Corporation Hengyang Railway No.1 Secondary School

Changsha Railway Corporation Hengyang Railway No.4 Secondary School

Changsha Railway Corporation Hengyang Railway No.5 Secondary School

Changsha Railway Corporation Leiyang Railway Secondary School

Changsha Railway Corporation Lengshuitan Railway Secondary School

Changsha Railway Corporation Loudi Railway Secondary School

Changsha Railway Corporation Yueyang North Railway Secondary School

Changsha Railway Corporation Yueyang Railway Secondary School

Changsha Railway Corporation Zhuzhou Railway No.1 Secondary School

Changsha Railway Corporation Zhuzhou Railway No.2 Secondary School

Changsha Railway Corporation Zhuzhou Railway No.3 Secondary School

Guangzhou Railway Corporation Guangzhou Railway No.1 Secondary School

Guangzhou Railway Corporation No.4 Secondary School

Guangzhou-Shenzhen Railway Industrial Development Corporation Shenzhen Railway Secondary School

Hainan Railway Secondary School

Hengyang Railway No.2 Hengyang Railway Vocational Senior Secondary School

Huaihua Railway Corporation Jingzhou Secondary School

Huaihua Railway Corporation Jishou Railway Secondary School

Huaihua Railway Corporation No.1 Secondary School

Huaihua Railway Corporation No.2 Secondary School

Huaihua Railway Corporation No.3 Secondary School

Huaihua Railway Corporation Zhangjiajie Secondary School

Zhanjiang Railway Secondary School

Guangzhou Railway Group Corporation: Others (Technical School, Adult School)

Changsha Railway Corporation Hengyang Workers' School

Guangzhou Railway Technical Secondary School for Adults

Huaihua Railway Technical School

Yonglei Railway Administration School

Liuzhou Bureau: Primary School

Guigang Railway Children School

Guilin Railway Primary School

Jinchengjiang Railway Primary School

Laibin Management Section Heshan Railway Primary School

Laibin Railway School

Lioujia Railway Primary School

Litang Railway Primary School

Liuzhou Railway No.1 Primary School

Liuzhou Railway No.3 Primary School

Liuzhou Railway No.4 Primary School

Liuzhou Railway No.5 Primary School

Liuzhou Railway No.6 Primary School

Liuzhou Railway No.7 Primary School

Liuzhou Railway No.8 Primary School

Liuzhou Railway No.9 Primary School

Nandan Railway Primary School

Nanning Railway No.1 Primary School

Nanning Railway No.2 Primary School

Pingxiang Railway Primary School

Rongan Railway Primary School

Yizhou City Railway Workers' Children School

Yulin Railway Primary School

Liuzhou Bureau: Secondary School

Chongzuo Railway Secondary School

Guilin Railway Secondary School

Jinchengjiang Railway Secondary School

Litang Railway Secondary School

Liuzhou Railway Adult Secondary Specialised School

Liuzhou Railway No.1 Secondary School

Liuzhou Railway No.2 Secondary School

Liuzhou Railway No.3 Secondary School

Liuzhou Railway No.4 Secondary School

Liuzhou Railway No.5 Secondary School

Nanning Railway No.1 Secondary school

Nanning Railway No.2 Secondary school

Quanzhou Railway Secondary School

Rongan Railway Secondary School

Yulin Railway Secondary School

Liuzhou Bureau: Others (Technical School, Adult School)

Guilin Railway Technical School

Liuzhou Railway Bureau Teachers College

Liuzhou Railway Engineering School for Adults

Liuzhou Railway Train Drivers School

Chengdu Bureau: Primary School

Ankang Railway Branch Ankang Workers' Children No.1 Primary School

Ankang Railway Branch Ankang Workers' Children No.2 Primary School

Ankang Railway Branch Hanzhong Workers' Children Primary School

Ankang Railway Branch Mian County Workers' Children Primary School

Ankang Railway Branch Mien West Workers' Children Primary School

Ankang Railway Branch Wanyuan Workers' Children Primary School

Ankang Railway Branch Xixiang Workers' Children Primary School

Ankang Railway Branch Ziyang Workers' Children Primary School

Chengdu Railway Branch Chengdu East Station Railway Workers' Children Primary School

Chengdu Railway Branch Guanghan Railway Workers' Children Primary School

Chengdu Railway Branch Guangyuan Railway Workers' Children Primary School

Chengdu Railway Branch Hehuachi Railway Workers' Children Primary School

Chengdu Railway Branch Mianyang Railway Workers' Children Primary School

Chengdu Railway Branch Chengdu Railway Workers' Children No.1 Primary School

Chengdu Railway Branch Chengdu Railway Workers' Children No.2 Primary School

Chongqing Railway Branch Chongqing West Children School

Chongqing Railway Branch Daxian Railway Workers' Children Primary School

Chongqing Railway Branch Ganshui Railway Workers' Children Primary School

Chongqing Railway Branch Guangan Railway Workers' Children School

Chongqing Railway Branch Jiulongpo Railway Children Primary School

Chongqing Railway Branch Longchang Railway Workers' Children School

Chongqing Railway Branch Neijiang Maintenance Workers's Children Primary School

Chongqing Railway Branch Neijiang East Railway Children School

Chongqing Railway Branch Neijiang Railway Children Primary School

Chongqing Railway Branch Qijiang Railway Workers' Children Primary School

Chongqing Railway Primary School

Guiyang Railway Branch Anshun Railway Workers' Children Primary School

Guiyang Railway Branch Duyun Railway Workers' Children Primary School

Guiyang Railway Branch East Station Workers' Children Primary School

Guiyang Railway Branch Guiding Railway Workers' Children Primary School

Guiyang Railway Branch Guiding Railway Workers' Children No.1 Primary School

Guiyang Railway Branch Guiyang Railway Workers' Children No.2 Primary School

Guiyang Railway Branch Kaili Railway Workers' Children Primary School

Guiyang Railway Branch Liupanshui Railway Workers' Children Primary School

Guiyang Railway Branch Machanping Railway Workers' Children Primary School

Guiyang Railway Branch Yuping Railway Workers' Children School

Guiyang Railway Branch Zunyi Railway Workers' Children Primary School

Xichang Railway Branch Emei Railway Workers' Children Primary School

Xichang Railway Branch Midi Railway Workers' Children Primary School

Xichang Railway Branch Panzhihua Railway Children School

Xichang Railway Branch Puxiong Railway Workers' Children Primary School

Xichang Railway Branch Wusihe Railway Workers' Children Primary School

Xichang Railway Branch Xichang Railway Workers' Children No.1 Primary School

Xichang Railway Branch Xichang Railway Workers' Children No.2 Primary School

Xichang Railway Branch Xichang Railway Workers' Children No.3 Primary School

Chengdu Bureau: Secondary School

Ankang Railway Branch Ankang Workers' Children No.2 Secondary School

Ankang Railway Branch Mien West Workers' Children Secondary School

Ankang Railway Branch Wanyuan Workers' Children Secondary School

Chengdu Railway Branch Guangyuan Railway Workers' Children Secondary School
Chengdu Railway Branch Hehuachi Railway Workers' Children Secondary School
Chengdu Railway Branch Majiaoba Railway Workers' Children Secondary School
Chengdu Railway Branch Mianyang Railway Workers' Children Secondary School
Chengdu Railway Bureau Chengdu Railway Workers' Children Secondary School
Chengdu Railway Secondary Schools for Adults
Chongqing Railway Banch Jiulongpo Railway Children Workers' Secondary School
Chongqing Railway Branch Daxian Railway Children Secondary School
Chongqing Railway Branch Neijiang Railway Children Secondary School
Chongqing Railway Branch Qijiang Railway Children Secondary School
Guiyang Railway Branch Duyun Railway Workers' Children Secondary School
Guiyang Railway Branch Guiyang Railway Workers' Children No.1 Secondary School
Guiyang Railway Branch Guiyang Railway Workers' Children No.2 Secondary School
Guiyang Railway Branch Kaili Railway Workers' Children Secondary School
Guiyang Railway Branch Liupanshui Railway Workers' Children Secondary School
Guiyang Railway Branch Mawei Railway Workers' Children Secondary School
Guiyang Railway Branch Zunyi Railway Workers' Children Secondary School
Xichang Railway Branch Emei Railway Workers' Children Secondary School
Xichang Railway Branch Xichang Railway Children Secondary School

Chengdu Bureau: Others (Technical School, Adult School)

Ankang Railway Branch Vocational School
Ankang Railway Technical School
Chengdu Railway Branch Vocational School
Chengdu Railway Engineering School
Chengdu Railway Technical School
Chengdu Railway Technical School Driving Training Campus
Chengdu Railway Transportation Technical School
Chongqing Railway Technical School
Guiyang Railway Technical School
Xichang Railway Technical School

Kunming Bureau: Primary School

Kaiyuan Railway Bureau Jijie Central Primary School

Kaiyuan Railway Bureau Kaiyuan Central Primary School
Kaiyuan Railway Bureau Yiliang Central Primary School
Kunming Railway Bureau 8km Central Primary School
Kunming Railway Bureau Guangtong Railway Central Primary School
Kunming Railway Bureau Kunming East Central Primary School
Kunming Railway Bureau Kunming Station Central Primary School
Kunming Railway Bureau Qujing Central Primary School
Kunming Railway Bureau Southern Station Primary School
Kunming Railway Bureau Tangzi Central Primary School

Kunming Bureau: Secondary School

Kaiyuan Railway Bureau Gejiu Vocational Senior Secondary School
Kaiyuan Railway Bureau Kaiyuan Secondary School
Kaiyuan Railway Bureau Yiliang Secondary School
Kunming Railway Bureau Guangtong Secondary School
Kunming Railway Bureau No. 1 Secondary School
Kunming Railway Bureau No. 2 Secondary School
Kunming Railway Bureau No. 3 Secondary School
Kunming Railway Bureau No. 4 Secondary School
Kunming Railway Bureau No. 5 Secondary School
Kunming Railway Bureau No. 6 Secondary School
Kunming Railway Bureau No. 7 Secondary School
Kunming Railway Bureau Qujing Secondary School

Kunming Bureau: Others (Technical School, Adult School)

Kunming Railway Technical School

Lanzhou Bureau: Primary School

Guyuan Railway Workers' Children Primary School
Shizuishan Railway Workers' Children Primary School
Tongxin Railway Workers' Children Primary School
Xiji County Yuquanying Railway West Primary School
Yinchuan Railway Workers' Children Primary School
Zhongwei County Yingshuiqiao Railway Workers' Children Primary School

Lanzhou Bureau: Secondary School

Dawukou Railway Workers' Children Secondary School

Yinchuan Railway Workers' Children Secondary School

Zhongwei Railway Workers' Children Secondary School

Lanzhou Bureau: Others (Technical School, Adult School)

Lanzhou Railway Technical School

Urumqi Bureau: Primary School

Beijiang Railway Company Alashankou Railway Workers' Children Primary School

Beijiang Railway Company Kuitun Railway Workers' Children Primary School

Beijiang Railway Company Shihezi Railway Workers' Children School

Hami Railway Branch Hami Workers' Children No.1 Primary School

Hami Railway Branch Hami Workers' Children No.2 Primary School

Hami Railway Branch Hami Workers' Children No.4 Primary School

Nanjiang Temporary Management Office Korla Railway Workers' Children Primary School

Urumqi Railway Branch No.1 Primary School

Urumqi Railway Branch No.2 Primary School

Urumqi Railway Branch No.4 Primary School

Urumqi Railway Branch No.6 Primary School

Urumqi Railway Branch Shanshan Workers' Children Primary School

Urumqi Railway Branch Tulufan Workers' Children Primary School

Urumqi Railway Branch Urumqi Workers' Children No.3 Primary School

Urumqi Railway Branch Urumqi Workers' Children No.5 Primary School

Urumqi Railway Branch Urumqi Workers' Children No.9 Primary School

Urumqi Railway Branch Urumqi Workers' Children No.11 Primary School

Urumqi Bureau: Secondary School

Beijiang Railway Company Kuitun Railway Workers' Children Secondary School

Hami Railway Branch Hami Workers' Children No.1 Secondary School

Hami Railway Branch Hami Workers' Children No.2 Secondary School

Hami Railway Branch Hami Workers' Children No.3 Secondary School

Nanjiang Temporary Management Office Hejing Railway Workers' Children Secondary School

Nanjiang Temporary Management Office Korla Railway Workers' Children Secondary School

Nanjiang Temporary Management Office Yuergou Railway Workers' Children Secondary School

Urumqi Railway Branch No.1 Secondary School

Urumqi Railway Branch No.3 Secondary School

Urumqi Railway Branch No.5 Secondary School

Urumqi Railway Branch Shanshan Workers' Children Secondary School

Urumqi Railway Branch Tulufan Workers' Children Secondary School

Urumqi Railway Branch Urumqi Workers' Children No.2 Secondary School

Urumqi Bureau: Others (Technical School, Adult School)

Urumqi Railway Branch Huoshiquan Technical School

Urumqi Railway Bureau Technical School

Qinghai-Tibet Corporation: Primary School

Xining Railway Branch Delingha Workers' Children Primary School

Xining Railway Branch Golmud Workers' Children No.1 Primary School

Xining Railway Branch Golmud Workers' Children No.2 Primary School

Xining Railway Branch Hairgi Workers' Children School

Xining Railway Branch Keke Workers' Children Secondary School (Primary Division)

Xining Railway Branch Minhe Workers' Children School

Xining Railway Branch Xining Workers' Children No.1 Secondary School (Primary Division)

Xining Railway Branch Xining Workers' Children No.2 Secondary School (Primary Division)

Xining Railway Branch Xining Workers' Children No.3 Secondary School (Primary Division)

Qinghai-Tibet Corporation: Secondary School

Xining Railway Branch Delingha Workers' Children Secondary School

Xining Railway Branch Golmud Workers' Children No.1 Secondary School

Xining Railway Branch Golmud Workers' Children No.2 Secondary School

Xining Railway Branch Keke Workers' Children Secondary School

Xining Railway Branch Xining Workers' Children No.1 Secondary School

Xining Railway Branch Xining Workers' Children No.2 Secondary School

Xining Railway Branch Xining Workers' Children No.3 Secondary School

Qinghai-Tibet Corporation: Others (Technical School, Adult School)

Xining Railway Branch Drivers School

Appendix H: The namelist of central SOEs

Alcatel Shanghai Bell Co., Ltd.	China National Materials Industry Group
Aluminium Corporation of China Limited	China National Nuclear Corporation
Anshan Iron and Steel Group Corporation	China National Offshore Oil Corp.
Baosteel Group Corporation	China National Packaging Corporation
Beijing General Research Institute of Mining & Metallurgy	China National Petroleum Corporation
Changsha Research Institute of Mining and Metallurgy	China National Pharmaceutical Group Corporation
ChemChina Group Corporation	China National Postal and Telecommunications Appliances Corporation
China Academy of Building Research	China National Real Estate Development Group
China Academy of Machinery Science & Technology	China National Salt Industry Corp.
China Academy of Telecommunications Technology	China National Service Corporation for Chinese Personnel Working Abroad
China Aerospace Science and Industry Corporation	China National Silk Imp. & Exp. Corp.
China Aerospace Science and Technology Corporation	China National Textiles Group Corporation
China Architecture Design and Research Group	China Network Communications Group Corporation
China Aviation Industry Corporation Ⅰ	China New Era Group
China Aviation Industry Corporation Ⅱ	China Nonferrous Metal Mining (Group) Co., Ltd.
China Aviation Oil Holding Company	China North Industries Group Corporation
China Aviation Supplies Holding Company	China North Locomotive and Rolling Stock Industry (Group) Corporation
China Changjiang National Shipping (Group) Corp.	China Nuclear Engineering & Construction (Group) Corporation
China Chengtong Holding	China Ocean Shipping (Group) Company
China Coal Research Institute	China Petroleum & Chemical

	Corporation
China Commerce Group	China Poly Group Corporation
China Commercial Aircraft Corporation Ltd.	China Power Engineering Consulting (Group) Corporation
China Communications Construction Company, Ltd.	China Power Investment Corporation
China Eastern Air Holding Company	China Printing (Group) Corporation
China Electronics Corporation	China Putian Corporation
China Electronics Engineering Design Institute	China Railway Construction Corporation
China Electronics Technology Group Corporation	China Railway Engineering Corporation
China Energy Conservation Investment Corp.	China Railway Materials Commercial Corp.
China Far East International Trading Corporation	China Railway Signal and Communication Corporation
China FAW Group Corporation	China Resources (Holdings) Co., Ltd.
China First Heavy Industries	China Satellite Communications Corporation
China Forestry Group Corporation	China Shipbuilding Industry Corporation
China Gaoxin Investment Group Corporation	China Shipping (Group) Company
China General Technology (Group), Holding, Limited	China South Industries Group
China Gezhouba Water & Power (Group) Co., Ltd.	China South Locomotive and Rolling Stock Industry (Group) Corporation
China Grain Reserves Corporation	China Southern Air Holding Company
China Guangdong Nuclear Power Corp.	China Southern Power Grid Co., Ltd.
China Guodian Corporation	China State Construction Engineering Corp.
China Haisum International Engineering Investment Corp. (Group)	China State Farms Agribusiness Corporation
China Hengtian Group Co.	China State Shipbuilding Corporation
China Huadian Corporation	China Telecommunications Corporation
China Huafu Trade and Development Group Corp.	China Textile Academy
China Hualu Group Co., Ltd.	China Three Gorges Project Corporation

China Huaneng Group	China Travel Service (Holdings) H.K., Ltd.
China Huaxing Group Company	China Travel Sky Holding Company
China Hydropower Engineering Consulting Group Co.	China United Telecommunications Corporation
China International Engineering Consulting Corporation	China Xinxing Corp. (Group)
China International Enterprises Co-operation Corp.	Chinese Academy of Agricultural Mechanization Sciences
China International Intellectech Corporation	CITS Group Corporation
China Investment Corp.	Datang Telecom Technology and Industry Group
China Iron & Steel Research Institute Group	Dongfang Electric Corporation
China Light Industrial Corporation for Foreign Economic and Technical Co-operation	Dongfeng Motor Corporation
China Lucky Film Corporation	General Research Institute for Nonferrous Metals
China Merchants Group Limited	Harbin Power Plant Equipment Group Corporation
China Metallurgical Geology Bureau	Huacheng Investment & Management Co., Ltd.
China Metallurgical Group Corp.	IRICO Group Corporation
China Minmetals Corporation	Luzhong Metallurgical Mining Group
China Mobile Communications Corporation	Nan Kwong (Group) Company Limited
China National Administration of Coal Geology	Overseas Chinese Town Enterprises Co.
China National Agricultural Development Group Corporation	Panzhihua Iron and Steel (Group) Company
China National Arts & Crafts (Group) Corporation	Shanghai Institute of Pharmaceutical Industry
China National Aviation Holding Company	Shanghai Ship and Shipping Research Institute
China National Biotec Corporation	Shenhua Group Corporation Limited
China National Building Material Group	Sinochem Corporation

Corporation	
China National Cereals, Oils & Foodstuffs Corp.	Sino-Coal International Engineering Design & Research Institute
China National Chemical Engineering Group Corp.	Sinohydro Corporation
China National Coal Group Corp.	Sinosteel Corporation
China National Complete Plant Import & Export Corporation (Group)	State Development & Investment Corp.
China National Cotton Reserves Corporation	State Grid Corporation of China
China National Erzhong Group Co.	State Nuclear Power Technology Corporation Ltd.
China National Foreign Trade Transportation Corp.	Wuhan Iron and Steel (Group) Co.
China National Gold Group Corporation	Wuhan Research Institute of Posts & Telecommunications
China National Light Industrial Products Imp. & Exp. Corp.	Xian Electric Manufacturing Corporation
China National Light Industry (Group) Corp.	Xinxing Ductile Iron Pipes Group Co., Ltd.
China National Machinery Industry Corporation	Zhuhai Zhenrong Company

Source: http://www.sasac.gov.cn/n1180/n1566/n259655/n260209/1859330.html