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THE INSTITUTIONAL PILLARS OF CHINA'S NATIONAL COLLEGE ENTRANCE EXAM: A CASE STUDY OF GAOZHONG HIGH SCHOOL AND NCEE REFORMS

A Dissertation Presented

by

MEI LAN FRAME

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSPHY

May 2020

College of Education

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A Dissertation Presented

By

MEI LAN FRAME

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DEDICATION

To my parents, Edward and Su Moi and To Beijing

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ABSTRACT

THE INSTITUTIONAL PILLARS OF CHINA'S NATIONAL COLLEGE ENTRANCE EXAM: A CASE STUDY OF GAOZHONG HIGH SCHOOL AND NCEE REFORMS

MAY 2020

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Directed by: Professor Bjorn Nordtveit

This dissertation is based on a case study of a Beijing high school (referred to as "Gaozhong") during the initial wave of reforms to the National College Entrance Exam (NCEE). Using the conceptual framework of Richard Scott's "three pillars" of institutions (2008) to analyze stake holder perception toward the NCEE (administrators, teachers, parents, and students), this study identifies and examines the regulatory, normative, and cultural-cognitive elements that comprise the NCEE. Congruent with Scott's theory that these the combined strength and interdependency between institutional elements prevent institutional change, this study also analyzes the three pillars as barriers to the implementation of NCEE reform at Gao Zhong high school.

An institutional analysis of the NCEE argues for a perspective of the NCEE as the *task* of education rather than, as is often argued, the *purpose* of education in China. At Gao Zhong, an "authority of scores" underlies the regulatory pillar; participants stress the many procedures and outputs of the NCEE that enable both knowledge and student effort to be codified, assessed, and translated into access to higher education opportunity, all through the singular score of the NCEE. Nonetheless, what is valued and gained in education derives more from the process of the Exam, rather than the test itself, harking back to a long tradition in Chinese education on the importance of "character." Meanwhile, the legitimacy of a "single score" on the NCEE is viewed as fair and objective despite participant awareness of inequality in educational resources and urban bias in quotas. Participants cognitively maintain the NCEE as an antidote to corruption and connections associated with wealth; their perspectives bring greater nuance to the meaning of "fairness" and "equality" in studies in Chinese education.

Regarding NCEE reforms, findings suggest superficial rather than substantive change at Gao Zhong, and reveal deeper issues of NCEE reform as a whole. Of particular importance are non-test forms of assessment that lack the legitimacy of score-based assessment, and the issue of student choice across subjects within a system heavily weighted in favor of science rather than fine arts.

PREFACE

On November 12, 2013, the Central Committee of the Communist Party of China announced a series of comprehensive reforms¹ aimed towards achievement of a "moderately prosperous society" (小康社会), parlance for government efforts geared towards sustainable and equitable social and economic development (Hu, 2017). Among the wide-ranging lists of reforms is reform of the National College Entrance Examination system (NCEE), designed to change the disadvantages of a system where "one's fate (life) is determined by one examination"² (Decision, 2013, p.12) – an often quoted saying regarding education in China (Zhu, 2016). Changes to the system include a comprehensive system of evaluation for students, student choice of subjects across previous set streams of fine arts or science classes, and multiple chances to sit parts of the exam³. These reforms were piloted in 2014 in Shanghai and Zhejiang and later rolled out in Beijing, Tianjin, Shandong and Hainan in 2017 (Luo, 2015).

This dissertation is based on a case study of a Chinese urban high school in Beijing, referred to by the psuedonym Gao Zhong (GZ), in fall 2017, during the initial implementation of reforms hailed as the "largest, most extensive, and most difficult reform" to the NCEE system (Wan, 2018). Through an empirical study of how stakeholders at GZ high school (administrators, teachers, parents, and students) perceive the NCEE, I set out to understand the rules, norms, and beliefs that uphold the 'former'

¹ Central Committee of the CCP, (2013) "Decision of the CCCPC on Some Major Issues Concerning Comprehensively Deepening the Reform", Third Plenary Session of the 18th National Congress. ² 从根本上解决一考定终身的弊端

³ Furthered in detail and scope by the later State Council document, Deepening the Implementation of the Reform of the Examination Enrollment System, (国务院关于深化考试招生制度改革的实施意见) 2014

NCEE system, and how these serve as barriers to new reforms. Adapting Scott's "three pillars" framework of institutions (Scott, 2008), this study identifies and examines the regulatory, normative, and cultural-cognitive elements of the NCEE and the NCEE system. I argue for the three pillars as a conceptual tool that provides a deeper and more comprehensive understanding of the NCEE; however, I also examine how particular aspects of Scott's framework, as well as other theoretical assumptions of institutional theory, are not consistent with findings. Through this analysis, I offer a perspective on the feasibility of change to the NCEE system, as policy reforms require change in some elements, but not in others.

Much scholarship on the NCEE has focused on its structure of rules and quotas (Kipnis, 2001; Liu et al, 2012), as well as its cultural roots and prevailing social expectations. Research tends to use the Exam as an explanatory factor, for example, why quality education reforms (*suzhi jiaoyu*, 素质教育) continue to fail in Chinese schools and classrooms (Lou, 2011; Marton, 2006; Yan, 2015; Chen, 2010, Dello-Iacovo, 2009), or how the Exam is legitimized through an ethos of hard work and fairness (Wang & Ross, 2010; Mutthana & Sang, 2015). In this study, I sought to enlarge this literature; the "tension" of implementing reforms was used to 'bring to the forefront' stakeholder perceptions of the NCEE and challenges towards changing the system.

Through the investigation of broader meaning systems, this dissertation offers another 'reality' of China's NCEE, one that explores 'below-the surface' norms and cultural-cognitive beliefs that are often excluded in studies of the NCEE. By focusing on "idealist concerns – the symbolic systems, cognitive scripts, and normative codes" (Scott, 1993, p.56) alongside the perspective of the NCEE as an "organized, established

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procedure" (Jepperson, 1991, p. 143), findings suggest that "education" is more than the NCEE, and what is valued and gained in education derives more from the process of the NCEE, rather than the tests itself. Thus, the NCEE becomes the *task* of education rather than, as is often argued, the *purpose* of education in China (Zhu, 2016; Yan 2015; Dello-Iacovo, 2009; Ross & Wang, 2010). The purpose of education harkens back to traditional ideals that focus on 'character', and these are reinforced through hierarchical roles and relationships that link all stakeholders together both normatively and culturally.

Meanwhile, the task of the NCEE links K-12 schools, government agencies, stakeholders (students, teachers, and parents), and higher education into a system that enables both 'education' and educational effort to be codified, assessed, and translated into higher education opportunity (and thus future social and economic opportunity), through the singular score of the NCEE. Through a hierarchical system of organizing educational resources, the NCEE defines both student and school performance, and a high score on the NCEE becomes the overriding concern of all stakeholders. Thus, the competition of resources establishes and enables a shared goal for all participants within the system. Although participants share the same goal, they make sense and negotiate the system through varied meaning systems and purposes. The NCEE, characterized as a hierarchical, standardized and top-down system (tightly coupled), can equally be characterized as level, unruly and negotiated (loosely coupled), where stakeholders are bound, albeit for different reasons, to fulfilling the task of the NCEE.

Viewing China's NCEE from this perspective, where "paradoxical" structures and systems exist, integrate with and uphold one another, offers a deeper understanding and analysis of the role of the NCEE in Chinese education. It draws from institutional theory

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dichotomies that define educational organizations, such as institutional vs. technical organizations and loose vs. tight coupling. In doing so, it exposes the complex interrelationship between contrastive elements and illustrates that dichotomies exist together and do not necessarily distract from one another; in fact, they provide a deeper understanding of the NCEE and Chinese education as a whole.

Finally, I think it important to note that a case studies approach is much more than empirical evidence – it is a historical 'snapshot'; the actions and beliefs of administrators, teachers, students and parents derive from location in both context and time. Participants represent stakeholders within an NCEE-determined education system as much as they do stakeholders embedded in a particular historical context. As participant ages range from 18 to 83, their statements reflect changing historical perspectives shaped by social, economic, and political factors. In this dissertation, these "larger" forces are examined, and I argue they affect change on the NCEE much more than policy or government reforms, revealing the unique way that education is interwoven into the fabric of Chinese society, economics, and politics.

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CHAPTER 1

THE NATIONAL COLLEGE ENTRANCE EXAM: ROOTS AND REFORMS

1.1 Summary

Chapter one of this dissertation begins with an overview of the NCEE along with a brief introduction of social and economic trends that impact the legitimacy and importance of the NCEE. Theoretical foundations and considerations are briefly introduced before a literature review. I then introduce literature that examines beliefs and values associated with the NCEE, as well as literature on how the NCEE acts as a barrier to quality education reforms (*suzhi jiaoyu*, 素质教育). New reforms in comprehensive evaluation (*zonghe pingjia*, 综合评价) are introduced as an extension of, as well as a measure, of quality education, alongside recent policy reforms and their goals.

1.2 Introduction: The NCEE

Every year, on June 7th to the 9th, high school seniors across China sit a high stakes college entrance examination known as the *gaokao* (高考 – literally translated as "high test"), or National College Entrance Exam (NCEE). There's little to compare with the immensity of China's NCEE; roads close to ensure unrestricted access to test sites, construction sites are put to rest in surrounding areas, and media abounds with pictures of anxious parents and student testimonies of grueling years of study in preparation to enter their "university of choice." According the State Council website, 9.4 million high school students sat the NCEE in 2017, with approximately 3.72 million placed in undergraduate

degrees at "regular" (not vocational or 2 year) institutions of higher education afterwards (Xinhua, 2017). When considering the number of stakeholders in the results of the NCEE – teachers, parents, administrators, officials, and of course, universities and industry – the magnitude of the exam is even larger. The significance of the NCEE "far exceeds education or schooling itself. It... becomes a major obsession of the students' families, as well as a significant social, cultural and political concern of the whole nation" (Du, 2013, p.13). As the determinant for higher education opportunity that also determines one's future socio-economic (and often political⁴) opportunity, it is no surprise that the NCEE garners such attention.

The idea of a culminating exam in education has defined the content, structure, and value of education for well over 1500 years in Chinese education (Epstein, 1982). Although codified in the Sui dynasty (603 CE) and politically reinforced during the Northern Song Dynasty (960-1127), the use of imperial exams (*keju* or 科举) to determine a government position can be dated as far back as the Han dynasty, when the Five Classics⁵ became tested curriculum for court academics at the Imperial College in 124 BCE (de Weerdt, 1999). The traditions of memorization, commentary and interpretation of these texts through civil service examinations, alongside suffering from "emotional stasis" due to examination anxiety (Elman, 2000, p.298), characterized Chinese education during the Imperial Era. These pedagogical and methodological roots

⁴ Qinghua, Beijing, and Fudan university are common alma maters of high-ranking government officials.

⁵ The Five Classics (五艺) include the *Book of Odes*, or *Classic of Poetry* (诗经), *Book of Documents* 尚书, *Book of Rites* 礼记, *Book of Changes* 易经, *Spring and Autumn Annals* 春秋. The *Record of Music* 乐经 was added later as the "6th" Classic. Nowadays, the *Book of Rites* is studied as part of the language (Chinese) test for the NCEE.

still bear importance today. The National College Entrance Exam (NCEE), begun in 1952 during the early years of Communist rule (Pepper 2000), is commonly viewed as a continuation of the ancient tradition of examinations in Chinese education due to its highstakes nature and as a determinant of socio-economic opportunity. Continuation, however, has also included endings; in 1904, the imperial exam ended and the NCEE ceased to operate during the Cultural Revolution's ban on all (educational) examinations from 1966 to 1977. Nonetheless, scholars of Chinese education repeatedly refer to the power, influence, and immovability of the NCEE, expressing concern that with each ending, the test seems to emerge with greater power (Pepper, 2000; Dello-Iacovo, 2009, Ross and Wang 2010).

To Chinese scholars, however, it is not the exam itself per se as much as it is the tradition of examination. In an article entitled "Striving towards building a modern examination enrollment system with Chinese characteristics" (努力建设中国特色现代 考试招生制度, 瞿振元) from the Chinese journal *China Examinations* (中国考试), the author argues, "the examination culture formed over thousands of years has foundations in the people, and the public agrees with the cultural tradition of the examination" (Zhen, 2017, p.3). This "cultural tradition" is twofold in meaning: 1) the use of exams as a selection tool for entrance into a hierarchical structure of higher education, and 2) the right of the government to determine and govern the policies of this hierarchical structure (Elam, 2000). Still, the tradition of examinations has been marked by repeated criticisms and reforms, whether during Sui and Ming dynasty (1368–1644) efforts to codify the exam (Elman, 2013), or the constant reforms to the NCEE system since 1978. As Chinese historian Benjamin Elman states, ""Despite repeated criticisms and constant efforts at

reform, the examination life, like death and taxes, became a naturalized fixture" of Chinese society and culture (Elman, 2013, p.98).

1.2.1 Changing Times, Changing Values

Although centralized control and the use of the exam as a selection tool have not changed in Chinese education, the social, economic, and political environment surrounding the NCEE has, and rather quickly since 1978. On June 6th, 2018, The South China Morning Post ran an article on their website "China's Generation Z gaokao candidates shrug off college entrance exam's reputation for making or breaking futures" (Zhuang, 2018). Reporting on an online survey posted by China's social media giant Sina Corp to 20,000 high school seniors, 50% believed that the NCEE "would not be their only opportunity to take hold of their future" (SCMP). Although Sina did not release any information about the survey population, the article does quote from numerous urban students who plan to attend overseas universities.

According to a news report by the Ministry of Education, there were 1,454,100 new students studying overseas; undergraduates represent a growing proportion of these students - 608,400 in total - or roughly 42% of all overseas students (MOE, 2018; National Bureau of Statistics of China, 2018, section 24-10). This number is significant, yet it is little compared to the roughly 9.4 million who sit the NCEE every year. However, what is more impactful has been the number of students, 480,900 in 2017, who return back to China (MOE, 2018). Known by the euphemism 海龟 (*haigui*), or "sea turtles", these returnees are much sought after for their educational credentials and skills, particularly in urban areas such as Shanghai, Beijing, and Tianjin. This has created

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increased competition for employment; the credentials of "sea turtles" equals (or sometimes surpasses) credentials from universities that are part of China's "Ivy League." Stories of parents spending money on summer programs designed to give their children an advantage compared to "sea turtles" are commonplace on websites and chatrooms such as Sina Gaokao (新浪高考) or Weibo (微博); these programs boast "all-round" development, ranging from skills such as English language, manners, golf and piano playing (Peng, 2016).

The issue of "sea turtles" and their increased prospects for employment is exacerbated when looking at the issue of unemployment for university graduates. In 2011, only 43.3% of university graduates were able to secure a work contract after graduating (Mok & Jiang, 2017, p. 47). However, unemployment is also due to massification of Chinese education. According to Mok & Jiang's study, the percentage of the population in China enrolled in college has increased from 3% in 1999 to 26 per cent of the population in 2013 (p.45). China's higher education system has gone from an elite to a mass system, while the rate of higher-level employment has not. "Ballooning enrollment" has "destabilized the "traditional" role and function of NCEE" (Ross & Wang, 2013, p. 4), and also destabilized the prospects for employment after graduation. This has impacted middle class families the most, as social mobility to an elite university and hence, a "guaranteed" job, has become more and more difficult (Mok & Jiang, 2017). As stated in Susanne Bregnback's book, Fragile Elite: The dilemmas of China's Top University Students, there is an overwhelming fear among top achievers of not being excellent *enough*, and therefore, not making it to the top (2016).

In short, changes in the social and economic environment surrounding the NCEE have decreased the importance of the NCEE; as pointed out by scholars, the NCEE plays a lessening role in social mobility in today's China than before (Wu & Ping, 2016). For those able to pursue higher education overseas, the importance of the NCEE is almost minimal. The 12th grade in Chinese education is solely for review of the NCEE; students planning to go overseas will opt out of attending school and instead attend classes for overseas qualifying exams, such as the SAT and IELTS. Second, although the creation of Tier 3 universities ($\equiv \pm$, *sanben*) has increased the percentage of enrolment in higher education, low government support, as well as low social prestige of these institutions has worked against equity in higher education institutions⁶ (Ross & Wang, 2013). Thus, few students (or families) would consider an education from these universities a form of social mobility. Last, the "delinking" of higher education and guaranteed employment has further weakened the role of the NCEE. As Mok & Jiang point out, employment through education is not as viable as family background, connections, and social networks for graduates looking for jobs (2017).

The changing environment around the NCEE has affected both the legitimacy and the important economic role of the NCEE. The choice of overseas study figures in my study of GZ high school; however, for most students, the financial cost rules out the option. Because GZ is located in Beijing, as a rule only Beijing residents can take the

⁶ The annual provincial cut-off for entry into Tier 1, Tier 2 and Tier 3 institutions is determined once all the NCEE results are known. A matrix of provincial quotas, university quotas, and subject quotas is negotiated annually. between universities and national and provincial authorities. Nationally, around 10% of candidates receive a Tier 1 score (allowing them to apply to Tier 1 universities), while a further 20% receive a Tier 2 score (Zheng & Zhu, 2018)

NCEE in Beijing⁷. Thus, the students and their families enjoy the privileges of having a Beijing resident's card, or *hukou* $(\dot{\sqcap} \Box)^8$. However, an overwhelming percentage of parents (and to a lesser degree, teachers) changed their *hukou* from rural to urban through education and work. They are, as my literature review suggests, disadvantaged despite being advantaged. Nowadays, there is widening socio-economic disparity, particularly between urban and rural populations, yet also among urban populations (Liu, 2008; Mok, 2012; Zhao et al, 2014). For them, as well as for the majority of close to 24 million students in high school⁹, "'Education determines one's fate' remains a basic reality in China" (Zhu, 2016, p.232).

1.3 Theoretical Issues: Institutional Theory

The theoretical part of the dissertation seeks to apply neo-institutional theory (more commonly referred to as "institutional theory" in current times) to analyze the Chinese NCEE system and the viability of current reforms. The NCEE has been defined by numerous scholars of Chinese education as immovable (Dello-Iacovo) and persistent (Ross & Wang 2013, Zhao 2014). The theoretical assumptions underlying institutional theory – that institutions by their very nature are persistent through patterned relations, actions, and taken-for-granted facts (Barley & Tolbert, 1997) – contribute towards understanding how and why the NCEE remains the central feature and structure of Chinese education. Borrowing a distinction from Shield's and Waterman's recent study

⁷ Students from other provinces are barred from taking the senior high school entrance examination

⁽zhongkao 中考) for Beijing high schools, even if they graduate from Beijing middle schools (Ling, 2015). ⁸ The *hukou* system is a household registration system in China that distinguishes between rural and urban residents. Having an urban *hukou* allows residents and their families access to privileges such as education in urban schools.

⁹ National Bureau of Statistics of China, 2018, section 24-4

on competing logics at universities (2018), the NCEE is an institution, while GZ high school is approached as an "institutionalized organization"; in other words, it "derives its durability and order through clearly articulated and often elaborate rationalizations of necessity and legitimacy" (Shield & Waterman, 2018, p. 2). In this case study, I examine the "elaborate rationalizations" that uphold both GZ's necessity and legitimacy within X district. Such a perspective stresses how organizations adopt practices that are appropriate or legitimate within their environment (Campbell 2004).

I employ the analytical framework of Scott's "Three pillars" theory to define regulatory, normative, and cultural cognitive elements of the NCEE (Scott, 2008). I began with a deductive hypothesis: Congruent with institutional theory that institutions by their very nature are slow to change (Scott 2008), my approach posits that the regulatory structure of the NCEE, combined with overarching and wider cultural norms and beliefs, would serve as barriers to the goals espoused by national policy documents to reform the NCEE system. Framing my research in this manner gave me a theoretical structure upon which to guide and inform my data-gathering, as well as my expectations of findings.

1.3.1 The Issue of Rules and the Regulatory Pillar – the case of China

Scott lists "force, sanctions, and expedience responses" as "central ingredients of the regulatory pillar" that are "tempered by the existence of rules" (Scott, 2008, p. 53). Institutional theory emphasizes the nation-state as a distinctive actor in its authority and legitimate coercion (Scott 2008). Considering the high degree of legitimate power, force and authority that the State exercises in China, and since education is state-dominated and centralized in China (the Ministry is under control of the State Council), one would expect rules and regulations to engender a high level of force. In the case of China, however, as argued by Thorgenson (2002) and Yuan (2001), the implementation of educational rules and reforms has also depended on the interests and goals of social actors. Rules are negotiated, rather than strictly implemented – whether they come from the school or government. What emerges is implementation of policy and rules that is often contested and highly contextual. However, I take this discrepancy as an opportunity to see how stakeholders both shape and are shaped by wider institutional contexts and the organization they belong to.

1.3.2 Inhabited Institutionalism

There are several theoretical issues with an analysis that connects situated action (case study data of participants) to macro-level environments of beliefs, values, and cultural systems in which organizations are embedded. Although seminal works (Meyer and Rowan 1977, Zucker 1977) "dared to stake their macro-theories on micro-sociology," later works in institutional studies do not (Barley, 2008, p. 491). A macro focus set on convergence of institutional forms (isomorphism) "treats social action inside organizations as a secondary concern, and indeed, its methodologies of choice usually render such action unobservable" (Haedicke & Hallet, 2016, p.4). Thus, although institutional theory offers an alternative explanation to a functionalist, actor-centric and rational-choice approach, inhabited institutionalism adds elements at the micro-level that are necessary for understanding data in this case study.

Inhabited institutionalism focuses on actions derived from culture or other aspects of the institutional environment, as well as how these are negotiated and given their own localized meaning; researchers examine "political and cultural environments" and how

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they "influence organizational life from the outside in", as well as the "collective interpretations" of people within organizations and how they "rework and channel these institutional effects" (Haedicke & Hallet, 2016, p.5). According to Haedicke and Hallet, focus on both the local "folk" account and macro-level institutional forces help to inform one another in both data-collecting and analysis; "theories provide conceptual buoys that help the scholar stay afloat" (2016, p.8).

1.3.3 On Culture

Because of the micro level of my research, it is important here to say a few words about culture. According to a basic tenet of institutional theory, organizational change occurs only when practices are aligned with an existing cultural framework (Meyer & Scott, 1983; Colyvas & Jonnson, 2011. The role of culture is central, as individuals and organizations are "suspended in a web of values, norms, rules, beliefs, and taken-forgranted assumptions" (Barley & Tolbert, 1997, p. 94). This does not mean, however, that culture is ends-oriented, causally determining the end goal of action, or that culture uniformly determines what actions people take; rather, this "web" consists of "shared understandings and available 'strategies for action'" (Witt & Redding, 2009, p. 865), which aligns it closely with the three components of Swindler's (1986) theory of culture:

2) A focus on "strategies of action" as "persistent ways of ordering action" to define the causal effects of culture, and

3) The causal significance of culture is that it constructs strategies of action.

(Swindler, 1986, p.273)

¹⁾ An "image of culture as a 'toolkit' of symbols, stories, rituals, and worldviews, which people may use in varying configurations to solve different kinds of problems",

The role of culture as constructing "strategies of action" are numerous in research on the NCEE, where culture is often synonymous with Confucianism, the main doctrine and philosophy of Chinese culture and education. For example, values and behaviors in students such as hard work in education (Ross & Wang, 2010), repetitive learning and discipline (Bakken 2000), improving one's self through education (Kipnis 2001, Liu 2008), and emphasis on family (Liu 2008) have all been attributed to cultural tenets of Confucianism. Charlene Tan's article identifies the epistemological basis for teaching in China as grounded in Confucian texts and ideals, arguing for the importance of cultural explanations to understand policy divergence despite adoption of global models (Tan, 2014).

The important role of Confucianism in Chinese education is not questioned here; however, the problem lies in an approach that presents Confucianism and Chinese culture as monolithic structures. Confucianism, state ideology since the Han dynasty (206 BC– 220 AD), has been doctored and redefined several times. Notions such as the "Mandate of Heaven" (justification of imperial rule) predate Confucius by several hundred years, while tenets of what is generally recognized nowadays as "Confucianism" derive from Neo-Confucianism, which has its roots around 1300 (Elman, 2000, Wu, 2016). In addition, the cultural dominance of Confucianism has been contested by scholars of Chinese history as well as scholars of Chinese religious and social studies (Kou 2017), due to its orientation with elite, state culture that disregards other social histories (Davis, 2002; Elman 2000; Yang 2011). Thus, I stay away from Confucianism as a "compass" of Chinese education and culture. Rather, as Paul DiMaggio points out in his article "Culture and Cognition", culture itself is fragmented:

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"Culture is inconsistent—that people's norms may deviate from what the media represent as normal, or that our preconscious images and discursive accounts of a phenomenon may differ... once we acknowledge that people behave as if they use culture strategically, it follows that the cultures into which people are socialized leave much opportunity for choice and variation." (DiMaggio, 1997, p.265)

Culture is not a unitary system that is "internally consistent against groups and situations"; rather "Beliefs are held by some and not by others" (Scott, 2008, p.58). In addition, as illustrated in the historical section of this dissertation, as well as recent government rhetoric towards Confucianism and the "China Dream", culture is constantly being re-defined and negotiated to align with State legitimacy.

1.4 Perceptions of the NCEE: Beliefs and Values

This section examines literature on the NCEE, focusing specifically on perceptions surrounding the NCEE, from its foundations of hierarchy and meritocracy, to the norms and values that uphold and legitimate the NCEE system. Belief in the NCEE system has been and continues to be upheld by narratives of hard work, fairness and objectivity, with the NCEE as the best means of distributing resources within a meritocratic society. Examination of these beliefs and values provides greater context for why quality (*suzhi*) education reforms have failed.

1.4.1 Structure and Hierarchy

Zhu Yongxin, one of China's most prolific professor and philosopher of education, states "if school-family-society form an effective network of education, these three parties join hands perfectly during the college entrance examination (2016, p.232). Zhu's statement underscores the importance of the NCEE in every sphere of a student's future life – the NCEE determines future success and status, for both students and families. In his book, "Chinese Modernity and the Individual Psyche", Andrew Kipnis (2012) looks at the relationship between examinations and their role in integrating and reembedding students into a larger social regime. Kipnis refers to the functions and structure of examinations in education in terms of social hierarchy, which itself is reflected in China's social imaginary:

In this imaginary, the social world is constituted in singular, hierarchical terms. Just as an examination suggests a singular social hierarchy, in which every individual, depending on his or her score, has a particular rank and place, so does this imaginary posit a single, overarching, hierarchical social world (2012, p.189).

The NCEE plays a crucial role in determining a person's position in a social hierarchy, as Kipnis points out, which has led to much criticism of the narrow focus of education in China. For example, the NCEE has been criticized for inhibiting creative thinking and exerting too much competitive pressure on students (Kai, 2012; Shen, 2012), with the exam likened to "thousands of troops crossing a single log bridge" (千军万马过独木桥). Still, the examination rests on a high degree of legitimacy through merit; "upward mobility and status allocation through education is generally considered to be more legitimate than through hereditary transmission because educationally acquired status appears to be based more on effort" (Liu et al, 2014, p.43).

1.4.2 Hard Work, or "Eating bitter"

Yu Wang and Heidi Ross's paper, "The College Entrance Examination in China: An overview of its social-cultural foundations, existing problems, and consequences" is one of the most extensive studies on beliefs, attitudes, and values of the NCEE amidst economic changes and NCEE reforms in Huining County, a poverty-ridden area of Gansu province. Across China, Huining County is hailed as "NCEE County" due to its high number of test-takers who have achieved the status of *zhuangyuan* (状元), a title that in modern parlance refers to top scorers in the NCEE at the provincial level, yet originally derives from an imperial title conferred on those passing the highest level of the imperial exam (Elman 2000). This phenomenon has been showcased by the media as an NCEE "miracle", explained by a narrative of *chiku* (吃苦), or "eating bitter", a term describing the necessity of hard work and sacrifice to obtain success in education (Wang & Ross, 2010). However, what the authors' longitudinal study (1996, 2001, and 2010) reveals is the reality behind this miracle - top achievers were "students who had repeated their third year of high school several times" (Wang & Ross, 2010, p. 80). The repeated study of the 12th grade and subsequent re-sitting of the NCEE to qualify for entrance into top universities is an unquestioned strategy for both students and teachers. According to county officials, the status of being "NCEE County" benefits the area much more than the economic costs of repeating students, although officials and administrators were at a loss on stating exactly what benefits are, beyond awards and media recognition (Wang & Ross, 2010, p. 83).

Underlying collective legitimacy for this strategy is an unquestioned belief in the NCEE as a means of social mobility that is upheld by "eating bitter." Written in 2010, when universities were allowed independent admissions for largely urban students, Wang and Ross demonstrate the tenacity of both beliefs despite a system weighted against rural students; "So it is still fair: we just need to work even harder, because the path got even narrower," explained a high school student in regards to the new admissions (Wang & Ross, 2010, p. 76). The necessity of "working harder" in an environment of narrowing

choices was reinforced by both parents and teachers, who still believed that NCEE success and admittance to top or elite universities could be achieved through persistence and effort. Within an institutional environment where the NCEE remains a "way out" of rural poverty, alternative routes biased against rural students *strengthen* the legitimacy of the NCEE.

The study of Huining County students, teachers, and their actions of repetitive test-taking, study, and teaching within an unquestioned ethos of hard work and perseverance, offer illuminating examples of how particular beliefs, values, and actions both support and help to create the legitimacy of the NCEE. Simultaneously, the importance of the NCEE as the only means of social mobility reinforces these beliefs, values, and actions. Despite college admission reforms and unequal university quotas that significantly disadvantage rural students over their urban counterparts, Huining's respondents still cling to the certainty of the NCEE in providing a means to succeed in both education and society, and never display doubt in the fairness and objective nature of the NCEE as the best means to determine success.

Another study at the rural level is Andrew Kipnis' 2001 study of students in Zouping County, Shandong Province, during the implementation of quality (*suzhi*) education reforms designed to decrease the importance of testing through shorter class hours and less homework (Kipnis, 2001). Whereas Wang and Ross (2010) look at social, parental, and individual desires for social mobility (and subsequent "scripted" behaviors that are repetitive and self-enforcing), Kipnis, accords significant power to the desire to escape the stigma of being "peasants", or students' own rural background. According to Kipnis: This becomes even more pronounced on those who do not do well on their first time of testing, and who keep repeating the process, as this route is not common for urban students. In 1995, urban students retaking the exam accounted for 9% of the population, while rural re-takers accounted for 22%" (Kipnis, 2001, p.4).

The fact that rural schools in Zouping County routinely outperformed urban schools (Shandong) in test scores illustrates the level of commitment to education as means to social advancement. Again, education was viewed as an "only option"; as stated by a parent, "City kids get jobs even if they don't do well at school. For us it's either success at school or hard work on the farm" (Kipnis, 2001, p.16) According to Kipnis, the growth of secondary educational opportunity combined with the chance to translate educational success into social mobility through higher education has resulted in a type of "educational discipline" where rural students equate their "peasant" background with educational failure. Although the conclusion of Kipnis' study on education discipline in rural settings is largely centered on issues of identity, his study equates the drive to succeed with character, and thus, hard work and perseverance become individual qualities that reflect both a moral and a social (collective) judgement. As stated by one respondent "Rural people believe in hard work. If you're in school you should be working hard at that, otherwise you should be working hard at making money" (Kipnins, 2001, p. 16). Similar to the unquestioned ethos of hard work and perseverance in Wang & Ross's study (2010), the drive to escape the stigma of being a "peasant" supports the legitimacy of the NCEE's role as a selection mechanism within a hierarchical society.

1.4.3 The Perspective of Urban Students

Mutthana and Sang's "Undergraduate Chinese students' perspectives on Gaokao examination: Strengths, weaknesses, and implications", is a qualitative study of ten student perceptions at three different universities in Beijing. The study focuses on the strength and weaknesses of the NCEE system, as well as why students hold a particular viewpoint (2016). In regard to the strengths of the system, students commented positively the objective nature of the NCEE to enhance equity of educational opportunity, and how the test is an essential part of Chinese culture (2016). However, unlike the results surrounding rural students, the authors' findings challenge the dominate discourse that perseverance and hard work will achieve success in the NCEE. Rather, students believed that despite their effort, they were unfairly discriminated against due to the "extra score" policy that benefits minority students and Chinese students who have foreign passports:

The minority students are also benefitted; although they might get average score in the test; they are still allowed to join the universities they prefer. While it is impossible for us, the non-minority students, to be accepted to those high-ranking universities with such average scores. (2016, p. 7)

This response was affirmed by another student, who, when questioned about the inequality of educational resources in minority (rural) areas, stated "Although the minority students have very limited access to educational resources, I still think this should have nothing to do with the policy admission of colleges. We (all) students of China must have the same facilities and same grading system" (2016, p. 8).

The results of Mutthana and Sang's study are particularly interesting in light of Wang and Ross's 2010 study, which showed that successful students were far less likely to voice discontent about the NCEE (Wang & Ross, 2010). Compared to their rural counterparts, urban students are significantly advantaged; however, these undergraduate students in Beijing obviously viewed themselves as disadvantaged. In fact, this suggests that urban students are more willing to question the discourses of fairness and hard work and criticize the NCEE system because they have other "routes" to social mobility. Nonetheless, such findings illustrate the extreme degree of competition and standards that have come to dominate urban students' pursuit of higher education.

1.4.4 The Only Child and the Pressure to Achieve

Although not strictly a study on the NCEE, Feng Liu's study on the relationship between urban only-children and higher education in China illustrates the high degree and pressure of competition in education that exists for urban middle-class children. A convergence of social and cultural factors that include an overemphasis on achievement in education, high expectations for prestigious universities, and parental desires to purchase cultural capital has created the need to "maintain or improve their family's social position in a more unequal and competitive society" (2008, p. 194). Liu notes a taken for granted social assumption that an increase in credentialized education equals an increase in career advancement and opportunity. This had led negatively to an increase in academic pressure for students that "already stand at an advantage" (2008, p.198).

In the qualitative study of university and non-university adults, themes of uncertainty and insecurity regarding future opportunity are linked to fierce competition in both education and the marketplace, while the growing inequality, particularly for the middle class, between resources and opportunities, led to an unquestioned necessity for the highest academic degree possible. Like Mutthana & Sang's study (2016), participants constantly referred to their lack of good family background and connections, which they hoped to supplant through academic achievement. Combined with an individualized, rather than collective, approach to success through hard work, participant narratives revealed an internally regulated and highly self-critical view of themselves (Liu, 2008). As stated by the author, "the only-children, as the advantaged group, in a wish to

maintain their upper hands in the fierce competition in the market economy, dare not stand still. They have to keep running harder and longer, not least because they enjoy the necessary resources to do so" (2008, p.203).

1.4.5 Fairness

The effects of myths inhere, not in the fact that individuals believe them, but in the fact that they "know" everyone else does, and thus that "for all practical purposes" the myths are true... We may all gossip privately about the uselessness of education, but in hiring and promoting, in consulting the various magi of our time, and in ordering our lives around contemporary rationality, we carry out our parts in a drama in which education is authority.

(Meyer and Rowan, 1977, p.75 – 76).

The NCEE is simultaneously revered as an objective and "fair" way to distribute resources within this hierarchy, as evidenced by the oft-repeated phrase, "分数面前人人 平等", or "All are equal before exam scores" (Mutthana & Sang, 2015). This belief also has historical ties to the old imperial exam system, where *access* to taking the exam was available to most people, regardless of class. In fact, "pressures for parity" date as far back as Song dynasty times (Pepper, 2000, p. 47). Both historical and current literature illustrate that education has been and continues to be a means of social mobility and success, and this system is justified through the objectivity of testing. At a session of the 2013 National People's Congress, Minister of Education Yuan Guiren stated that "the *Gaokao* (NCEE) is so far the most equitable examination in the nation" since "it is still universally acknowledged that *Gaokao* has been so far the most untainted, the fairest among all similar, contested selection processes" (Du, 2013, p. 15). "Fairness" in the NCEE is based on: 1) the objective, scientific nature of the exam, where an anonymous score decides opportunity for higher education, and 2) the "equal" opportunity to achieve

educational success (and resultant social mobility) through hard work (Liu, 2012; Wang & Ross, 2010). Ideally, testing methods and instruments of testing are products of a scientific process that is objective, and exams are considered reliable, valid, and objective forms of assessment. The "equal" playing field of the NCEE states suggests that everyone has the same opportunity for merit-based educational success. Thus, the perception of NCEE "fairness" is upheld by arguments of objectivity and meritocracy.

1.4.6 Fairness for Whom?

However, there are conflicting definitions of "fairness" that depend on stakeholder position. For example, urban students have greater resources at school and at home and are rewarded lower cut-off scores to enter top universities due to their resident status (Liu, 3013, Liu et al, 2014). For the government, overcoming rural/urban disparity (in education) is an important cornerstone of "harmonious" national development that must be achieved – hence, the recent allocation of higher quotas in university enrollment for western and central undeveloped regions of China (the National Outline, Ch. 6, section 22). Meanwhile, urban parents feel entitled and unwilling to give up on local privileges for their children, and urban students decry the "unfairness" of extra points for minorities and rural residents. This has placed government reform in a precarious position; You and Hu's paper on balancing diversification and equity in the College Entrance Examination Reform describes the outcome of this situation: "Consequently, the MOE has to walk a policy tightrope to balance the two demands through the introduction of some modest adjustments or incremental reforms" (2013, p. 320). Because of the high degree of general support and legitimacy of the NCEE, there exist

another belief that reforms "must be implemented in a cautious, gradual way" (Ross & Wang, 2013, p.3).

1.4.6.1 Quotas and Residency

Suggestions for caution concern the notion of "objective" assessment. Although exams are scored the same, the provincial quota enrollment system is primary when considering the equality of higher education opportunity in China. Determined yearly by the Ministry of Education, "cut-off" scores (the lowest needed to enter into different tier universities in each province) are based on the number of test takers, as well as the number of universities within each province (Mutthana & Sang, 2015). Since an overwhelming majority of universities are in urban areas, this means limited choice and higher scores for those with rural residency. For example, cut-off scores in 1999 for students from Beijing were 466 points in the humanities, and 460 points in the sciences. For students from Hubei, which is largely rural, scores for entering a four-year university were 544 points in humanities, and 566 points in sciences (Kipnis, 2001, p. 21). In addition, quotas for entrance into prestigious key universities, also located in urban areas such as Beijing and Shanghai, allocate a certain number of places for local residents. The effect of this is startling; according to a study of enrollment in Peking University, students admitted from Beijing (1978 to 1998) was larger than the combined admittance of students from the 6 rural provinces of Shandong, Zhejiang, Hubei, Hunan, Henan and Anhui (Liu et al, 2012, p. 34).

There is ample scholarship available illustrating disparity in China's higher education opportunity, to which the NCEE is the gatekeeper. For example, research findings by Liu, Wang, and Yang on the admission of rural students into prestigious

Peking University reveal how mechanisms such as the household registration system, political status, and the unequal distribution of educational resources across the country disadvantage rural populations (2012). Ye Liu's quantitative study of meritocratic ideals and selection in higher education illustrates the growth of elitism that accompanied market reforms, legitimizing both the reforms of the Party and the privileges of a new class of urban elites (2013). Excluding these issues of quota policies, socioeconomic status and residency allows for a sort of "idealized" notion of the NCEE that is not reflective of the many factors involved in educational opportunity and social mobility (Liu et al, 2012). Nonetheless, public opinion of the NCEE, since its re-instatement in 1978, has been and still remains very high. In order to understand the reason for this, it is necessary to look at a most fundamental aspects of Chinese society – the existence of corruption through the institution of guanxi.

1.4.7 Guanxi: Contrast or Counterpoint?

The most important talent selection system in our society is the college entrance examination.... Although in society there is no lack of criticism of the existing college entrance examination system, there is at present no other choice (Wang, 2016, p.5).

This statement about the NCEE in a Chinese science and technology journal reflect quite perfectly public sentiment towards the NCEE – first, the NCEE is the mechanism with which students (embodying future 'talent') are selected into higher education, second, there is much criticism of the system, particularly in current times of NCEE reform, and third, there is a type of resignation to the existence of the NCEE in that there is "no other choice."

The idea of "no other choice" references the issue of corruption, which is particularly poignant because of the issue of guanxi (关系), or "connections/relations." Guanxi is an integral part of Chinese society and culture, and in and of itself, is neither good nor bad. Rather, it represents an "alternative" power structure that exists alongside state power (Yang, 1989), as well as an institution defined by norms that govern how individuals exchange personal favors (Cai & Yang, 2014). Guanxi exists in spaces of legal ambiguity and thus is able to transcend legal structures of both business and government (Law, 2012). It is also indispensable for being able to navigate within such power structures, as evidenced by researchers in China who lack access to sites and materials because they lack sufficient guanxi¹⁰ (Nordtveit, 2011).

Upholding the concept of the NCEE's fairness is, quite simply, a belief that other means of determining higher education access will be subject to corruption and *guanxi*:

Unlike the quantifiable NCEE results, measures like interviews and recommendations are more subjective... which leaves room for under-the-table deals and corruption... Guanxi could easily corrupt college admissions with manipulations and under-the-table deals in the holistic admissions. For instance, those who have guanxi with government, high school, and college officials may possibly fabricate and falsify the 'soft' information such as cumulative GPA, class rank, awards, admissions essays, recommendations, and interview scores. (You & Hu, 2013, p. 315)

As Mutthana and Sang's study on urban students confirms, the NCEE is often touted as a way to "counter" the guanxi system in society (2015). This role can be traced back as far as the Ming dynasty, when the emperor sought to control the power of sibship

¹⁰ My research would have been impossible if it were not for my guanxi with the school's principal. I can only guess at what is expected in return. Being a "foreigner", however, one is often exempt from obligations due to ignorance.

through a bureaucracy determined by an imperial exam (Elman, 2013). Often, this discourse is reinforced with arguments about resources and China's large population:

In China, a large, developing country where interpersonal relationships are especially valued and social resources are fairly scarce, the public's anxiety about and longing for fairness are more intense in comparison with the feelings of the citizens of many other countries (Zheng, 2010, 14).

Since the end of the Cultural Revolution, the NCEE has been "used as the best example of, as well as the best advertisement for, the Party's determination to provide equality, justice, and opportunities to all" (Feng, 1999, p. 44); in other words, the NCEE is the symbol of government commitment to fair opportunity. This still holds true today. Every year, government and media reports (in both domestic and overseas newspapers¹¹) about cheating and increased surveillance measures, along with militant photos of drones and extra police, help to reassure the public that the NCEE is "fair." In these stories and reports, the government is portrayed as fighting corruption. For example, in 2018, Sun Chunlan, vice premier of the State Council, visited Beijing's examination center (北京教育考试院) to "safeguard fairness and justice" of the NCEE; Xinhua news reported renewed government efforts to "crack down on crimes such as high-tech cheating and collective fraud" (MOE, 6/6/2018).

This "public display" of fairness figures largely in arguments against new reforms, which give universities more autonomy in selecting students, especially through "subjective" criteria such as comprehensive evaluations and the use of grades in subjects

¹¹ See Time magazine's "Chinese Students Face Up to 7 Years in Prison for Cheating on College-Entrance Exams", 2016: https://time.com/4360968/china-gaokao-examination-university-entrance-cheating-jail-prison/

rather than scores (Li, 2017). Now, selection (of university admissions) will no longer be determined solely by test scores of the NCEE, but by "multiple measures" such as academic performance of all high school classes and an "assessment of comprehensive qualities" that appear highly subjective in nature (MOE, Decision 2013). In addition, the lessening of State oversight in the process, with university admission committees gaining more power, has led to opinions that "corruption is likely" (Wu & Ping, 2016, p. 10). These opinions are not unfounded; in 2010, after universities were granted the right for autonomous enrollment, alliances were formed by top universities to design and set criteria for "channeling" the right students (Wu & Ping, 2010). In 2015, the government made illegal such "alliances."

In conclusion, the issue of fairness of the NCEE is linked to issues of corruption and guanxi within the education system and Chinese society at large. They are interwoven, and thus, uphold and legitimate one another. Thus, issues of equity such as rural/urban disparity and weighted quotas are inconsequential to this argument. New reforms to change "one test determining one's life" directly challenge this social, cultural, and political role of the NCEE. Meanwhile, as discussed in the next section, reforms in *suzhi*, or quality, education, directly challenge the structure of the NCEE by trying to reform test-centric education.

1.5 Stunted Reforms for Change: Suzhi (quality) Education

During the mid-80's, when focus in education shifted towards creating a globallycompetitive workforce, the 1986 Compulsory Education Law formalized nine years schooling and officially introduced *suzhi* (quality) concepts into education. In 1999, the "Decision on Deepening the Education Reform and Promoting Quality Education"

further strengthened the need for qualitative reform, invariably linking education to demands of China's booming knowledge economy and increasingly fierce global competition (Lou, 2011; Hu, 2012). Framed in terms of innovation and creativity to boost China's economy, *suzhi* reforms target the "excesses of yingshi jiaoyu, (应试教育)" or examination-oriented education (Dello-Iacovo, 2009, p. 241). Pedagogical reliance on rote memorization for exams was "deemed to be deficient" through rigidity in learning, lack of student engagement, and the "all-round physical, emotional and academic development of students" (Murphy & Johnson, 2009, p. 488).

Suzhi reforms also have a moral/political component that extends back to traditions of character education in Confucian philosophy; "Historical antecedents for *suzhi* can be seen in Confucian teachings that each individual is malleable, trainable and obliged to self-cultivate and that all subjects share in responsibility for the fate of the empire" (Murphy, 2004, p. 2). Thorgeson's notes that since the end of the Qing Dynasty, education has been used ideologically as a "forceful remedy to raise the quality of the population" (Thogersen, 2001, p.186). *Suzhi* reforms are drawn from antecedents in China's educational history as much as they are calls to meet China's new global economy.

Despite its long history, the *suzhi* movement in education has remained vague, and definitions of range from whole-child learning to enrollment in extracurricular classes such as piano and English (Jacka, 2009; Woronov, 2005). Nonetheless, quality education reforms have been and continue to be promoted by the MOE and school administrators. However, research conducted on curriculum and pedagogical change in schools since 1989 have shown minimal to no change in "teaching to the test" and

conclude that the NCEE is the primary barrier to any reform of China's test-centric system (Dello-Iacovo, 2009; Feng, 2009; Lou, 2011; Marton, 2006; Yan, 2015). Since the start of *suzhi* education reforms, NCEE emphasis on rote memorization in learning and knowledge assessed through testing stand opposed cultivating holistic (全面 *quanmian*) learning in students (Liu et al, 2014). Thus, the NCEE has made reliance on traditional pedagogy and traditional practice the best routes to success (Lou, 2011; Merton, 2006; Chen, 2010). Because *suzhi* reforms have taken place simultaneously with rapid changes of decentralization and marketization of government fiscal responsibilities, test scores are essentially tied to school funding (Zhao, Haste, and Selman, 2014). Thus, *suzhi* reforms are a "contradictory project, one in which state-led efforts chafe against disciplines of the market economy" (Woronov, 2005, p. 569).

Since its inception, however, *suzhi* education has been widely criticized as a sort of "window dressing" for structural inequalities between rural and urban education; as Lou points out, the reform has created greater stratification and inequality in education among schools and provinces simply because of resource allocation, therefore, "reproducing and increasing the educational and socioeconomic gap between rural and urban societies" (Lou, 2011, p. 73). In addition, the new curriculum is largely urbanbased, which furthers disengagement towards education within rural communities. Studies of *suzhi* education and its discourse have shown it to be a normalizing and disciplinary discourse that not only structures the intellectual development of students through its emphasis on "well-rounded" education, but also defines ideological and moral attributes which students must adhere to if they are to be "quality" students (Murphy, 2004).

1.5.1 The NCEE and Suzhi: Resistance and Support

Regardless of these various implications and critiques, *suzhi* education reform and its accompanying student-centered ideals still garner high support and popularity among teachers and administrators. However, this widespread support is countered by an equally strong resistance to implement *suzhi* practices in the classroom. In her paper, "Curriculum reform and 'Quality Education' in China: An overview," Dello-Iacovo describes this paradoxical phenomenon as "one of the most perplexing aspects of the *suzhi* jiaoyu discourse" (2009, p. 248), citing the central role of examinations and the NCEE in both education and society as one of the largest obstacles to curriculum reforms. From a survey conducted in 2005 among 246 education officials at the county level, 74.38% thought that the current examination system made it "very difficult" to implement *suzhi* reforms, while 19.01% described implementation as "impossible" (2009, p. 245).

Similarly, Andrew Marton's case study of Shanghai middle schools in his article, "The cultural politics of curricular reform in China: a case study of geographical education in Shanghai," offers several insights to the importance of examinations scores as benchmarks for not only student achievement, but also teacher evaluations and school success. Strengthened by the key-point ranking systems developed in the mid-80's, the overriding concern for most students and teachers "was to study and teach solely for achieving the highest possible marks on examinations" (Marton, 2006, p. 248). As one example of how ranking affects teachers, Marton gives the example of teachers' salaries, which are divided into two components. The first part from a teacher's rank in the school and is government supported; the second part is known as "bonus pay", though it

comprises close to half of a teacher's salary (p. 246). Anxiety about not "teaching to the test" (and receiving less pay) meant that teachers were not pedagogically willing to favor critical thinking and student-centered learning promoted by *suzhi* education over rote memorization and review of exam material. According to Marton, this created an "orthodoxy" that was perceived as ". . . a solid wall that teachers and students dared not surmount . . .' (2006, p. 251). As a result, the success of *suzhi* practices and techniques depends on the extent teachers and their students can maintain high exam scores.

A more recent study is Chunmei Yan's article, "We can't change much unless the exams change: Teachers' dilemmas in the curriculum reform in China," which examines English curriculum and teaching reforms at three senior high schools in Central China (2015). Yan's article provides much-needed insight in how high school classes and exams are structured to meet the needs of the NCEE, which she describes as "the "backwash effect of assessment, especially high stakes testing" (2015, p. 7). During senior year, class times for subjects that are not tested in the NCEE, such as fine arts and information technology (soon to be tested, however), are often cancelled to utilize extra study time for the NCEE. Interestingly, such a use of class time is actually prohibited by local and national-level ministries, yet schools regularly engaged in such practices (Yan, 2015). Like the *suzhi* education methods that are ignored in favor of *tihai zhanshu* (题海 战术), or "exercise-stuffed tactic", there is another strong disconnect between national and local policy and the actuality of what happens in schools. According to Yan, parents put constant pressure on schools for more "exercise-stuffed tactic" and practice through mock exams; thus, the situation of *suzhi* reform was characterized by "high-sounding

appeals to promote quality education, (with) down to earth preparation for examinations" (p. 12).

In all three articles, there is a contradiction between support of quality education and its principles, while at the same time, an unwillingness to change, in both students and schools. Although principals and teachers were supportive of student-centered classroom activities incorporated in the new textbooks, they are reluctant to promote *suzhi* teaching methods as a pedagogical principal, largely because it contrasted so drastically with the rote memorization required for traditional exam-oriented education (Marton 2006; Dello-Iacovo, 2006). Meanwhile, parents argue for more "well-rounded" quality learning for their children, and yet complain when test scores are affected (Yan, 2015).

This "contradiction" is important to keep in mind when looking at current reforms; although state policy has always been the central figure, mediator, and enforcer of all educational reforms in China, the implementation of these reforms depends largely on the interests and goals of social actors. Since the beginning of modern schooling (1904), the Chinese population has often been critical of reforms, selecting the elements that benefit them, and often willfully ignoring those that do not (Yuan, 2001). In this context, the 'failure' of *suzhi* education cannot be simply attributed to market forces or an unchangeable educational system. Rather, *suzhi* reforms are an interface between the Chinese state and society as a whole (Peterson et al, 2001). As a focus for human development, *suzhi* has created a benchmark to justify poor performance in exams (Kipnis, 2001), work and overall life qualities, as well as structural inequalities (Murphy, 2004; Woronov, 2004). However, it has also created a corresponding benchmark for the

State, used to describe systematic and structural weaknesses in State efforts towards educational improvement, innovation, and quality assessment/evaluation (Ross et al, 2011).

In addition, *suzhi* reforms have occurred in the context of China's school culture, which defines both learning (knowledge) and teaching, as well as the expectations and values of students, parents, and teachers, all of which are geared towards high scores on the NCEE. This "culture of test-oriented education", the impetus behind *suzhi* education, has not changed and remains strong (Zhao & Qiu, 2012, p. 320). According to Wing-Wah Law, societal culture is a major barrier to transforming china's test-centric education, due to a "deep-seated sociocultural psychology on the part of parents, students, teachers, schools and local governments" (Law, 2014, p.350).

1.6 NCEE Reform: Innovation, "Harmonious Society" and the "China Dream"

1.6.1 Reforms and the State: Legitimacy through National Development

In China, education is not an "autonomous social institution"; it is instead an "important arena over which different factions within the CCP compete for control and realize their vision of national development" (Tsang, 2000, p. 582). Recent educational reform policies are geared towards national development driven by market forces and arguments for human capital capacity-building (OECD, 2015). Thus, educational policy surrounding the NCEE occurs in a highly contested, political arena marked by a multiplicity of interests and issues of legitimacy that are framed as national development. Although these policies have changed the dominance of the NCEE very little, it is true "that few countries in the world have changed their university entrance examination systems as much as China has" (Xiong & Zhu, 2009, p. 99). In the case of China, reform is central to the ethos (and legitimacy) of the Party; "the Communist Party of China is the only reformed ruling party in the world, relying on constant improvement and innovation" (Hu, 2017, p. 40).

Another important factor is the role education plays within the State; since the restoration of the NCEE in 1978 played a significant role in strengthening the CCP's centralized power and legitimacy (Feng, 1997). In the last 10 years, national policy has often been geared toward the provision of public goods and services (referred to as $\underline{R} \pm$ 政策, or social policies) in the name of "creating a Harmonious Society" (Lu, 2014, p. 424). Thus, policy is often viewed as a key tool in the maintenance or reshaping of State legitimacy (Gilley, 2008). As pointed out in a quantitative study on policy related to the abolition of K-9 school fees, policy awareness of educational reforms (through statecontrolled media) helps to consolidate and legitimate the central government's role in education, even if initiatives are locally led and funded (Lu, 2014). Whether driven by competing interests of political factions within the government or the State's need to consolidate its legitimacy, educational policy occurs in an internationally and nationallyminded matrix of varying economic, social, and political interests. As Malen and Knapp state in their article about symbolic analyses of educational policy, "The efficacy of policy resides in its capacity to shape perceptions of social conditions, events, and institutions irrespective of its capacity to alter actual social circumstances" (1997, p. 431).

Despite the centralized control of policy creation in China and education reform in the service of the State, implementation of reform depends much on local interests and

expectations. In a historical study of educational reform in Zouping County from Late Qing to contemporary times, Thogerson analyzes how reforms affect macro-level processes of nation building and state formation while also affecting the micro-level of individual lives and careers – a phenomenon he refers to as an "unruly and unpredictable field where strong interests of the state, local elites, communities, families, and individuals collide together" (2002, p. 4). This statement of Thogerson's captures quite perfectly the reactions, expectations, and responses at the local and individual level to national-level policy reforms in education.

1.6.1.1 The State View on Development and Diversity

Du Yubo, vice-minister of education in the Ministry of Education, referred to reform of the NCEE as "the most comprehensive reform since China resumed the NCEE in 1977" (Wei, 2014). Meanwhile, Jiang Gang, director of the National Education Examinations Authority, in an interview with *China Examinations*, a scholarly journal in China, states that the reforms are part of "the Chinese dream of achieving the goal of "two hundred years and realizing the great rejuvenation of the Chinese nation" (Jiang, 2017, p.2). "Two hundred years" is a political term referring to greater equity in China (similar to harmonious development) as well as economic, social, and political modernization. In order to keep up with rapid economic growth and socialist modernization, China's education system needs reform of the NCEE, since it is the selection mechanism for higher education enrolment. In the view of the government, "China now needs a new personality type in order to facilitate the transition to a knowledge society. This new vision is complex: the state promotes innovation while at

the same time expecting conformity by limiting critical thinking and creativity to areas where political stability is not challenged." (Xiong & Zhu, 2009, p. 8).

Ultimately, the reform of the NCEE is the beginning of reform of China's higher education system (Zhen, 2017). As stated by Jiang Gang, The NCEE is a "baton" for both secondary and primary education that "connects the main channels of higher education and basic education" (Gang, 2017, p.3). Policy reform documents promote the idea of $\dot{\Delta}$ 德树人(lide shuren) as a fundamental requirement for strengthening China's university as a place for innovative talents. "立德" emphasizes the importance of ideology and morality, while "树人", literally "tree people", refers to cultivating innovation through the growth of multiple talents (Guangming Daily, 2017). As stated on the MOE website, "If you leave 立德树人 and cannot fulfill the task of talent cultivation, the university will not become a university, and it will lose the most fundamental foundation of existence" (Guangming Daily, 2017). NCEE reform, through the improvement of educational quality, leads to an improvement in the quality of people, and thus selection into higher education (Zhen, 2017). However, discourse in reforms to the NCEE is heavily weighted towards social and ideological concerns, rather than pedagogical (Zhao & Qiu, 2012). Reforms will decide not only what type of "talent" enters higher education but also ensure that the selection of talents reflects national development goals.

Thus, if *suzhi* education can be "understood as the individuated process of development," with every individual working "to improve him or herself" according to definitions and conditions facilitated by the state (Murphy & Johnson, 2009, p. 488), then new reforms of non-test assessment (comprehensive quality assessment), and the ending

of streams and the choosing of subjects across both Fine Arts (humanities, geography, and politics) and Science (physics, biology, and chemistry) are set to further this individuation process: "The reform of the college entrance examination dual-track system is to focus on cultivating students' holistic development" (Wang, 2016, p.8). However, based on articles from the mainland, as well as government reports, the true goal of the reforms may not be greater diversity or individuation of the individual student, but greater diversity in higher education.

1.6.2 Diversity in Higher Education

The reform of the NCEE is a complicated affair as it sits in the center of many issues in in China's higher education system. In terms of policy discourse, the main issue is the need to create more diversity in talent, though the policy is vague about how reform measures will achieve this. According to Chinese scholars in vocational education, the foundation of the reform is a step towards creating a "dual-track" system that separates an "academic" track from a "professional" one. Such a system at the high school level would then reflect differences in students' academic ability, ambition, career development, and life planning (Hu, 2014).

At present, those who enter into 专科 (*zhuanke*) colleges, best translated as vocational or professional training colleges, must take the NCEE; the mismatch between the academic knowledge needed for the NCEE versus the skills needed for technical schools relegates the years of study in high school as wasted, while the knowledge learned inappropriate (Hu, 2014; Wang & Fu, 2016; Ling, 2015). The furthering of a "dual track" system, based on reforms to end subject streams, are aimed towards helping

recruitment of students into higher vocational education (Wang & Fu, 2016). These students, who do not enter degree-based (B.A.) programs, total around 60% of those who take the NCEE (Hu, 2014).

Besides these structural changes, however, there is the social stigma against vocational colleges (专科) colleges, as well as a significant lack of resources and quality programs in China's current system of vocational education. As a result, those who test at this level of the NCEE are seen as "failed competitors" because "the inferiority of vocational schooling on the education ladder persists as both public perception and objective reality" (Ling, 2015, 109). This stigma extends well beyond vocational colleges, though; for an increasing number of students, both rural and urban, admittance into anything less than a top university is considered a failure (Bregnbaek, 2016).

1.7 Relevant Policies

As mentioned in the preface, recent policies have been geared towards achieving a "moderately prosperous society" grounded in issues of equity that reflect a "harmonious society" (和谐社会, *hexie shehui*). Former policies geared towards persistent high economic growth are no longer sustainable, and have caused the government to shift "their policy focus dramatically" (Lu, 2014, p. 424). As stated in the following reforms, education is key in achieving a harmonious society, and reform of the NCEE system represents a crucial and historically unachieved step in educational reform.

The reforms are designed to lessen the dominant and central role of the NCEE in Chinese education and higher education opportunity through increased student choice in

subjects, testing times, and new assessment criteria such as a student's moral, ideological, and social "character." Reforms are geared towards promoting necessary innovation for the knowledge economy; the traditional exam-oriented form of education is seen as a hindrance to developing skills for the 21st century (Zhu, 2014). Initial pilots began in Shanghai and Zhejiang, 2014, while Beijing, Tianjin, Shandong and Hainan, as the second pilot group, started in 2017 (Wan, 2018).

Assessment reform is tied "comprehensive evaluation" of students, the goal of which is "to promote holistic education through alternative assessment" in order to "uphold quality-oriented education and focus on students' moral, intellectual, aesthetic and all-round development" (Tan & Ng, 2018, p. 293). Comprehensive evaluation, geared towards "quantifying talent," are to be integrated into an information management system at the provincial or municipal level (Peng, 2016) and form a necessary component for university selection (Wan, 2018). In this way, reliance on the single score of the NCEE is lessened, and assessment becomes more formative, as it records the growth and achievement of students during their entire high school years.

Four major policies outlining key NCEE reforms referred to in this case study are:

1) The Outline of China's National Plan for Medium and Long-term Education Reform and Development, 2010-2020 (国家中长期教育改革和发展规划纲要), (17th National People's Congress) – referred to as "The Outline"

2) The Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform, 2013 (中共中央关于全面深化改革若干重大问题的决定), (Central Committee of the CCP) – referred to as "the Decision"

3) Directive on Deepening the Implementation of the Reform of the Examination Enrollment System, 2014 (国务院关于深化考试招生制度改革的实施意 见). (State Council) – referred to as "Deepening" 4) Opinions of the Ministry of Education on Strengthening and Improving the Evaluation of the Comprehensive Quality of Ordinary High School Students Enhancing and Improving High School Students' views of the synthetic evaluation of quality education, 2014 (教育部关于加强和改进普通高中学生综合素质评价的意见) – referred to as "Opinions"

The NCEE reforms represent a system-wide change and are therefore under the control of the central government (Zhao & Qiu, 2012). Thus, although the source of these policies are from different sources (in this case the People's Congress, the Central Committee of the Chinese Communist Party (CCCCP), and the Ministry of Education), power is centralized and therefore, "it can be assumed that all bear the same power and have been sanctioned by the highest body of decision-making" (Zhao & Qiu, 2012, p. 314).

1.7.1 The Outline: Education for harmony and national development

The Outline states that reforming the NCEE is crucial for aligning secondary education towards the needs of national socioeconomic development, where reform, creativity and innovation¹² are key. In this document, the NCEE and its current role in higher education distribution are described as problematic mechanisms for realizing socioeconomic goals of harmony and development. As stated by Mok, "the present government, fearing potential social unrest arising from general dissatisfaction with the State's ability to address social inequalities, has responded to these criticisms by pledging a new approach based on the idea of a 'harmonious society' and 'people-centered development" (2012, p.230). Promoting the idea that the "destiny of the nation lies in education", *the Outline* calls for reform of the current system:

¹² Innovation is mentioned a total of 32 times.

Our concept of education and our teaching contents and methodology are relatively outdated, schoolwork burdens on primary and middle school students too heavy, the promotion of quality education arrested, our students weak in their adaptability to society, and innovative, practical and versatile professionals in acute shortage (Preamble).

Therefore, *the Outline* proposes reform of college entrance examinations to gradually introduce a new examination and enrollment system featuring classified exams, integrated assessment, and diverse ways of student enrollment to nurture students with professional and innovative abilities (MOE Blueprint, 2010). Through proposed structural reform of the examination and enrollment system, *the Outline* hopes to address the "bottleneck" issue of "the talent training system" (Wang & Dongpin, 2012, p. 5), where focus is strictly on examination results at all education levels.

Attention shall be paid to cultivating self-study and self-support abilities and social adaptability in students, to helping students overcome the tendency of examination-oriented education (Outline, 2010, Ch. 5, section 11).

Within *the Outline*, "quality improvement" is seen as a way to enhance creativity and innovation in education (Ross et al, 2011), while "quality evaluation systems" based on "comprehensive evaluations" will ensure that reforms are carried out at the middle and senior high level.

A scientific teaching quality evaluation system shall be in place, and academic proficiency tests and comprehensive evaluation of student quality should be instituted throughout senior middle school education (Outline, 2010, Ch. 5, section 12).

1.7.2 The Decision: The Ending of Subject Streams

The later policy document, *the Decision*, reiterates the goals of NCEE system reform, but redefines them in greater detail. The author of the document, The Central Committee, meets yearly and is responsible for discussing and defining policy aims:

"In order to eradicate the drawback of "one's fate being determined by an examination¹³," we will promote the reform of the examination and college admission system, explore an operational mechanism in which college admission and examination are separated to a certain extent, students have multiple opportunities in the college entrance examinations..." (Decision, 2013, section 42, paragraph 2, p. 12)

According to Angang Hu's work on China's modern state governance, *the Decision* is a "grand blueprint for comprehensively deepening reform with the largest scope, comprehensiveness and effort, viewed by the international community as an 'ambitious and deliberate plan' for China's reform" (Hu, 2017, p.67). It is more "people oriented" (Hu, 2017, p. 57), calling for greater equity through social mobility, with education viewed as an essential factor in social mobility. Education is listed as a productive social force and an important factor in social mobility, and *the Decisions* places importance on rural/urban equity, social responsibility (for students), and innovation with practical abilities (Article 42, part 12). 'Innovation' is a key phrase in the document as *the Decision* promotes science and technology as forces of modernization (Part 13). Thus, reform of education sits squarely in the middle of efforts towards the modernization of China's entire state system.

¹³ (从根本上解决一考定终身的弊端) translated as "fundamentally solving the disadvantage of one test determining one's life)

Within this context, reform of examination system is necessary to ensure greater social equity, since NCEE policy is central to equity in higher education access and the foundation of higher education enrollment policy. In addition to a student's NCEE score, admission into higher education will occur through evaluation, thus separating "college admission and examination to a certain extent." The redefinition of testing and admission procedures redefine government responsibility in education towards a 'modern state system':

We will further push ahead with the separation of government administration, school management and educational evaluation, delegate greater power to provincial governments in making their overall educational development plans and to schools to make their own decisions about school affairs (Article 42, part 12).

The Decision also expands on testing that happens more than once a year, and a proposed reduction in the number of courses tested in the NCEE:

"We will explore ways to reduce the number of courses in the unified national examinations, with a mixture of social and natural sciences, and have open-to-all foreign languages tests several times a year" (Decision 2013, paragraph 2, p.12)

The term for multiple opportunities refers to the foreign language component of the NCEE (English) being scheduled for two to three times yearly, with students given the choice of which test score they will use to get into university. This has been promoted as a way of lessening pressure for students. Reducing the number of courses refers to changes in the high school proficiency test, and for the NCEE, the ending of science and art streams, with students choosing three classes across the following subjects: chemistry, physics, biology, geography, politics, and history.

1.7.3 The Deepening: Giving form to quality education

The State Council text, *Deepening*, adds greater detail to these aims, and sets the pilots program to begin 2014, a second batch in 2017, and 2020 as the deadline for the "establishment of Chinese modern education systems of examination and enrollment" (Section A:C) The new system aims towards ending the "one exam" system for entrance into higher education through multiple testing times and through the standardization of "Comprehensive Quality Evaluations", a term used once in *the Decision*, but expanded on here:

Comprehensive quality evaluation mainly reflects the comprehensive development of students' moral, intellectual, and aesthetic qualities, and is an important reference for students to graduate and progress in school (Section B:2).

According to Ross, Cen, and Zhou's study on student engagement and reforms geared towards raising educational quality, the assessment and evaluation of educational quality originally laid out in *the Outline* is a "crucial innovation" (2011, p. 26). For several years prior to *Deepening*, high schools have been required to keep a file for each student that highlights both academic, social, and personal "quality." Provinces were tasked with administration of the process, such as basic requirements, procedures, and transparency. With "*Deepening*", comprehensive quality evaluation must include the recording of the development of students in ideological, moral and academic achievement, physical and mental health, artistic literacy, volunteer service, social practice and personality development.

Objectively record outstanding performances of students that showcase growth, attention paid to social responsibility, innovation and practical ability, (which) mainly includes students' ideological and moral (achievements), academic achievement, physical and mental health, artistic literacy, volunteer service, social interaction and personality (Section B:2).

In particular, development of a student's moral, intellectual, and aesthetic capabilities are highlighted, along with a focus on growth of personality.

1.7.4 The Opinions: Measurement through a transparent framework

These "Comprehensive Quality Evaluations" figure large in the Ministry of Education *Opinions* text and describe the responsibilities and tasks of high schools for each student. Most importantly, the evaluations provide a way to measure "quality", and thus, create a slightly more tangible framework than earlier reform policy:

Comprehensive quality evaluation is an important measure to comprehensively implement quality education and deepen the reform of evaluation by examination (section 5).

Quality assessment is geared towards addressing "serious public concerns" towards "a suffocating environment of test score-equivalent-quality and outcomecentered assessments (Ross et al, 2011, p. 25). Recorded in an assessment portfolio, evaluations include student assessments and rankings in ideology, moral character, physical and mental health, artistic accomplishment, and social service. Ideally, this portfolio will be a continuation of a student's development since primary school in the categories of moral development, academic development, physical and mental development, special interests, and academic status (Peng, 2016). In this way, they further earlier reforms of *suzhi* education, focusing on observations of a student's "overall development" or "good personality" (section 1, para 1, 2014). Aspects of "good personality" are defined in terms of "social responsibility, innovative spirit and practical ability", and include evaluation of a student's moral beliefs and behavior, academic

performance, physical and mental health, artistic accomplishments, and social "practice"

(section 3, para. 1 to 5, 2014). At the secondary level, teachers are required "to guide

students to focus on an objective record of specific activities" (section 4):

- 1. "Realistic recording" Teachers must guide students to create an objective record that illustrates the "main contents of quality" through the listing of specific activities, the "collection of relevant factual information", and "activity sheets."
- 2. "Organizing a selection" At the end of each school term, teachers must guide students to select "key activities."
- 3. "Publicity approval" These materials must be "prominently publicized on campus" and the campus internet network. This includes a "self-presentation" by each student
- 4. "Archived contents" and the establishment of "comprehensive quality files" for each student. This includes a "growth record" consisting of "teachers' comments to objectively and accurately reveal the individuality of each student."
- 5. Comprehensive quality archives (portfolios) are to be used for college admissions. By the end of 2017, all schools must have a policy stating how they will assess and "make an objective evaluation" of these archives accessible for university admission.

These requirements are designed to create an objective record and evaluation system; given the highly subjective nature of non-test assessment through "moral" behavior and mental "health", a key goal of the policy is an "insistence on fairness, strict regulation of the evaluation process, and strengthening of effective supervision to ensure that the evaluation process is open and transparent" (section 2). According to the document, provincial level education authorities (provincial-level MOE) must submit a report to the (national-level) MOE on developing "specific measures and laws" towards a proposed supervisory and accountability system by August 2015 (section 6).

The major changes to China's education reform center on ending the "one exam determines one's life" nature of the NCEE. These are done through multiple exam times (for the foreign language component), greater student choice in curriculum through the ending of science and arts streams, and the use of comprehensive quality evaluations (assessment portfolio) to be considered in higher education admission. As stated in the Outline, reform to China's test-driven system are, in terms of student development, geared towards the skills necessary for the innovation and creativity needed in the 21st century economy. In addition, the prior reforms of *suzhi* education, particularly in providing a guideline to what constitutes *suzhi*, are finally given form. Thus, the policies serve to address the many critiques of Chinese researchers concerning the dominance of the NCEE and test-based learning as major obstacles to educational effectiveness and innovation (Ross et al, 2011; Tan & Ng, 2018).

1.8 Conclusion

My study seeks to offer empirical evidence of institutional elements of the NCEE as they exist within a school, and thus, expose the challenges that institutional factors pose to China's educational reform of the NCEE. As the government seeks to transform the NCEE system through policy reform reminiscent of earlier quality education attempts, as well as through non-test assessment, institutional elements of the regulatory, the normative, and the cultural-cognitive (Scott, 2008) are brought to the forefront. These reforms, set during a time of increased competition, high unemployment of graduates, and growing socio-economic disparity, will affect higher education opportunity and ultimately, a student's employability. In order to analyze the possible success of reform,

it is crucial to identify barriers to their implementation, barriers that institutionalized elements of the NCEE create. Earlier studies of the NCEE have examined beliefs in meritocracy and norms of hard work (particularly for rural residents), and the NCEE as the reason for failed quality education reforms. Where my study differs is through the approach of inhabited institutionalism to identify how macro-level institutional elements affect micro-level action at a school, and the application of Scott's framework of Three Pillars (2008) to identify the regulative, normative, and cultural-cognitive elements of the NCEE. These elements are then analyzed as institutional barriers to NCEE reforms.

CHAPTER 2

INSTITUTIONAL THEORY

2.1 Introduction

In this dissertation, I employ elements of institutional theory¹⁴ as a theoretical framework to analyze case study data gathered from GZ high school on China's National College Entrance Exam (NCEE). This approach offers a broader understanding of the NCEE that lies outside a rational-actor interpretation. In the literature review section in Chapter 1, there is an assumption that stakeholders in the NCEE, whether students, parents or teachers, actively try to maximize the advantages they have, whether through repeated examinations, a push for higher status, or through pedagogical adherence to rote memorization (Ross &Wang, 2010; Peng, 2016; Dello-Iacovo, 2009). Such an interpretation is grounded in rational actor or functionalist explanations, where the NCEE is presented as a choiceless route for social mobility. In this section, I examine major tenets of institutional theory, both "old" and "new," to help unpack how and why actors are faced with "no other choice" but the NCEE. As stated by Kreucken, the attempt at deconstructing a taken-for-granted reality is the starting-point of the neo-institutional approach (Kruecken, 2002, p.2).

Neo-institutional theory, henceforth referred to as institutional theory in sociology, focuses on "idealist concerns – the symbolic systems, cognitive scripts, and normative codes" (Scott, 1993, p.56) as a way "to construe the relationship between institutions and behavior" (Hall & Taylor, 1996, p. 937). It allows consideration of the

¹⁴ There is "old" institutional theory and "new" (neo) institutional theory. "Institutional" theory refers to neo-institutional theory, except when I am specifically referring to differences between "old" and "neo".

values, beliefs, and cognitive structures that are often eclipsed by more functional or rational-actor considerations. In doing so, it expands on earlier work on sense-making proposed by March and Simon that recognizes "that members of organizations have wants, motives, and drives, and are limited in the knowledge and in their capacities to learn and to solve problems" (March & Simon, 1993, p. 157). An institutional approach also does justice to the multiple meanings (and hence realities) that are often subsumed under an assumption of "Confucian/traditional culture" (Wu, 2016).

At a macrolevel, both "old" and neo-institutional theory examine the interplay between organizations and their institutional environment composed of wider social and cultural rules, norms, meanings, and definitions (Scott 2008). Much of the theory focuses on organizational change through external pressure from powerful forces in their institutional environment (Campbell, 2004). In this case study, means of operation, core belief and values at GZ school, a "regular"¹⁵ high school in China, are being challenged through the external pressure of state-led reform of the NCEE. In addition, GZ is under pressure by other forces in their institutional environment to maintain "things as they are." This dissertation examines these forces, and the impact they have on stakeholder action.

In the following section, I present an overview of the foundations of institutional theory, its major tenets, and research relevant to analysis of data from stakeholders at GZ toward the NCEE. I also present research on institutional theory applied to the Chinese context, which point out the significant role of the State in determining both structure and

¹⁵ This is the term "regular senior secondary schools" used by the government.

action. As a way to draw boundaries around the vast literature that composes institutional theory, I leave out significant tenets; for example, I do not engage with works in world culture theory, a key application of institutional theory in the field of comparative education (Meyer et al, 1997). As will be noted in my history section, scholars of Chinese education and history see developments and reforms in institutions and organizations as more of an interplay of Chinese culture and the West, rather than isomorphism for legitimacy in a globalized world based on western ideals (Tan, 2014; Peterson et al, 2001; Schmalzer, 2009; Lam, 2011).

2.2 The Importance of Legitimacy

Historically, the core of institutional theory has focused on three aspects: 1) why "organizations engage in activities that are legitimate in the symbolic realm rather than the material one," 2) why organizations "adopt behaviors that conform to normative demands but conflict with the rational attainment of economic goals" and 3) how particular organizational structures, objects, or processes acquire meaning beyond their technical goal(s) (Suddaby, 2010, p.15). The adoption of behaviors and meanings creates "social and cultural interdependence" between organizations and environments, with environments composed of cultural and normative elements such as legitimacy and meaning (Scott, 1992, p. 156). Early works of neo-institutionalism drew a difference between technological efficiency and gaining legitimacy from key actors in the institutional environment (Meyer and Rowan 1977), wherein an institution's "meaning, legitimacy, and potency come from appearing to be rational systems" (Scott, 1992, p. 160). By the 1990's, research focus had begun to shift toward understanding how organizations acquire, manage, and use legitimacy (Lounsbury & Zhao, 2013). The issue

of legitimacy is central to institutional theory and the first sociologist to write about the role of legitimacy in organizations was Max Weber (1864 – 1920).

2.2.1 Weber: Authority and Compliance

To begin with the works of Max Weber is a necessity; not only did Weber develop a study of institutions through his concept of bureaucracy, but his typology of authority examines the roles of legitimacy and obedience (Weber, 1951). Weber's monumental work *Economy and Society* states that every form of domination implies a "minimum of voluntary compliance; that is, an interest (based on ulterior motives or genuine acceptance) in obedience" (1968, p. 212). According to Weber, we can distinguish action which is motivated by self-interest and that which is guided by a belief in a "legitimate order" (Matheson, 1987, p. 207). At the individual level, belief in a legitimate order (on either a system or dominator) implies actions based on a normative sense of duty. Thus, interests extend well beyond the material and economic into a realm of belief composed of motivations for obedience or legitimation of command. In both cases, explanations or beliefs "seek to 'legitimate' or make rightful the behavior in question" (Matheson, 1987, p. 200). According to Weber, this validation also serves to legitimate a ruler or system:

What is important is the fact that in a given case the particular claim to legitimacy is to a significant degree and according to its type treated as "valid"; that this fact confirms the position of the persons claiming authority and that it helps to determine the choice of means of its exercise. (Weber, 1968, p. 214)

In addition to this legitimacy, Weber lists three types of authority (ideal types): traditional grounds – based on the tradition of sanctity of a ruler through loyalty, personal dependence and a culture of obedience (Blau, 1963); charismatic grounds – based on devotion to a person, group, or institutional form, both through belief in the person's heroic deeds or their personal revelation and the "extraordinary" quality possessed by persons or objects; and rational grounds – based on legal authority, with command and obedience impersonal in nature, as exemplified in bureaucracy or officialdom (Weber, 1968). Traditional and legal types are described by a particular sense of "routinization" of charisma; for example, traditional authority is the result of the routinization of charisma, where charisma (or sacredness) is embodied in norms and rules of the past rather than a person (Matheson, 1987). Meanwhile, charismatic is routinized into a legal structure or organization (bureaucracy) that are both controlled by rationally established authority, such as law.

Most importantly, Weber's definition of legitimate authority rests on the criteria of voluntary submission. For legitimate authority to exist, there cannot be coercive power:

Since authority entails voluntary compliance with the superior's directives, it obviates the need for coercive force or for sanctions. Resort to either positive incentives or coercive measures by a person in order to influence others is *prima facie* evidence that he does not have authority over them... Authority is distinguished from persuasion by the fact that people a priori suspend their own judgment and accept that of an acknowledged superior without having to be convinced that his is correct" (Blau, 1963, p. 307).

To Blau, rewards, punishment, and the use of persuasion all indicate the lack of authority of a system, organization or person. Authority that is socially legitimate (that is less costly than the aforementioned) must be accompanied by a particular belief system, and Weber's three types are a classification of authority *and* their accompanying belief systems.

Weber has been criticized as "ruler-centric" in his analysis of types as classification does not take into account *why* an individual acts in a system of domination; nonetheless, "what is a rationale for command constitutes a potential rationale for obedience as well" (Matheson, 1987, p.207). In addition, Weber's methodology for analysis of these three types is not consistent; nor does he take into account theories of revolution (Blau, 1963). Despite these criticisms, Weber's contribution to institutional studies and sociology through his attempts to understand the values and meanings that individuals attach to institutions cannot be disputed. His study of legitimacy, and his theory of bureaucracy and its corresponding growth of rationality in society, is foundational to institutional studies.

To Weber, the growth of bureaucracy led to an increasing ethos of rationality and coordinated action within organizations, based on a hierarchy of legitimated authority through qualifications, rules and laws, increasing specialization, a type of promotion based on merit, and an overriding concern on efficiency (Weber, 1986). Rationality "takes the form of scientific thinking applied in the economic realm," promoting values such as respect for rational analysis, evidence, standardization of procedures, and calculation (Witt & Redding, 2009, 862). Through a science of rationality, management and organization (promoted through a capitalism fueled by Protestant ascetism), humanity would become imprisoned in an "iron cage" that was irreversible (DiMaggio & Powell, 1991). According to Weber, the growth of bureaucracy and its resultant coordination of the action of large numbers of people would be the dominant structural feature of modern societies, enabling both the modern state and the modern economy.

2.3 A different kind of "rational" legitimacy

As a move away from Weber's "Iron Cage" analysis of social organizations characterized by rationality, efficiency, and the growth of bureaucratic management to create "... ever-more efficient structures for performing the tasks associated with modern society" (Hall & Taylor, 1996, p. 946), neo-institutionalism argues for a different approach to understanding bureaucratization. In "Institutionalized organizations: Formal structures as myth and ceremony," John Meyer and Brian Rowan challenge the dominant paradigm of organizational structure based on technology and rational actors by offering the "myth" of a rationalized structure (1977). According to the authors, there is a large gap between formal bureaucratic rational structures and how organizations really operate. If organizational structure were based on control and coordination, then organizations in postindustrial society would not incorporate demands from their institutional environment. These demands, such as certification, the incorporation of certain personnel departments and unenforced rules are all examples of institutionalized elements that present an organization as "appropriate, rational, and modern" (p. 344). To Meyer and Rowan, incorporating such elements are a response to demands from the institutional environment, and provide a way for organizations to avoid scrutiny; "the organization becomes, in a word, legitimate, and it uses its legitimacy to strengthen its support and secure its survival" (p.349).

This is a significantly different than the broad, social purpose of legitimacy of Weber, where legitimacy is key to the functioning of authority and domination within organizations; for institutional theorists, legitimacy is a lens through which one can observe organizational behavior. Institutional rules function as "myths," and

organizations may be compelled to incorporate them (such as in the case of coercion), but ultimately, the need for legitimacy trumps all, since it ensures resources and stability. Thus, organizations that wish to be successful must incorporate elements that are legitimated externally in the environment. The isomorphic nature of the organizational field results in the transmission of cultural practices designed to increase legitimacy (DiMaggio & Powell, 1991). Conflicting institutional demands, in terms of both function and legitimacy, are seen as a product of the way modern societies and modern organizations have evolved (Scott & Meyer, 1991).

This perspective is a reaction to the Weberian perspective of organizations where structure is determined by function, goals and efficiency, yet it is also a drastic shift from the behavioral "slant," which views institutions as shaped by an aggregate of individual decisions based on rational choice. Rather, institutionalists focus on "how social choices are shaped, mediated, and channeled by institutional arrangements (DiMaggio & Powell, 1991, p. 2). Which type of social choices are focused on by sociologists marks the difference between *old* institutionalism and *neo*-institutionalism.

2.4 Old vs New Institutionalism

One of the fundamental texts of "old" institutionalism is Selznick's study on the Tennessee Valley Authority (TVA), which illustrated that organizations do not always act rationally to achieve their official goals (1949). Rather, organizations, being embedded in an institutional matrix, will change in response to pressures and values imposed on them by powerful actors in their environment; in the case of the TVA, rich and powerful constituents in agriculture that were in the TVA's environment eventually replaced the democratic and populist ideals, becoming part of the formal structure through

administration (Campbell, 2004). Selznick's study illustrated a "permeable" feature of organizations with the values and norms of the environment being incorporated into the organization. As Campbell argues in his book on institutional change, the focus on norms and values is what distinguishes Selznick's theory from rationalist and utilitarian assumptions of organizational decision-making (Campbell, 2004). What is important here is that much of the old institutional analysis in organization studies maintained that norms and values were an important part of institutional life. In a way, Selznick's study expands on Weber's normative theory of authority, but from the standpoint of an organization rather than an individual; "From the standpoint of the collectivity of subordinates, compliance with the superior's directives is voluntary, but from the standpoint of the individual subordinate it is the result of compelling social pressures" (Blau, 1963, p.312).

The importance of the institutional environment in deciding what is appropriate or legitimate carries through into neo-institutionalism, along with a rejection of the rational actor model of analysis.¹⁶ However, in 'new' institutionalism there is "a turn toward cognitive and cultural explanations" (DiMaggio and Powell, 1991, p. 8), previously missing in 'old' institutionalism. This distinction between normative and cognitive factors is the distinguishing mark between the two, though some theorists argue about the validity of claiming these as 'new' (Selznick, 1996). Nonetheless, a cultural-cognitive turn has placed emphasis on the taken-for-granted and unconscious aspect of decision-making and action, as opposed to deliberate and self-conscious action driven by normative pressures (Scott, 2008). In other words, institutional forms "are not necessarily

¹⁶ In addition, many theorists study populations of organizations within an environment (Hannan & Freeman, 1977; Zucker, 1989), or defining fields (MacAdam & Fligstein, 2012); however, these are not central for my analysis.

the products of conscious design" (DiMaggio & Powell, 1991, p.8). Reproduction of these cognitive structures (cultural frameworks) is key to the neo-institutional approach, as "institutions also contain routines and processes that sustain these frameworks, symbols, schema, and rules and, therefore, reproduce themselves over time" (Jepperson 1991, p.145). Hence, institutionalized scripts and routines are said not only to constrain action but also to enable or constitute it by providing actors with models to guide their behavior (Clemens and Cook, 1999).

According to Selznick, a distinguishing feature of new institutionalism "is the focus on legitimation as a sustained and driving force among organizational actors" (Selznick, 1996, p. 273). Like scripts and routines, legitimacy is both a source of inertia and the reason behind justification of particular practices. The general theme of neoinstitutionalism's argument is that similarity in organizations (isomorphism) is the result of efforts to attain legitimacy within the institutional environment or organizational field (Meyer & Rowan, 1977, DiMaggio & Powell, 1991). It leads to a sensitivity of the organization with its cultural environment, and results in mimetic responses (isomorphism) to uncertainty. Legitimacy resides in collectivities as a "widely-shared presumption," and as "people act collectively toward a common purpose, legitimated activities are reciprocally interpreted and become habitualized (Colyvas & Powell, 2006, p. 309). Thus, cultural practices geared towards legitimacy become institutionalized, or "infused with value beyond the technical requirements of the task at hand. The test is expendability, that is, the readiness with which the organization or practice is given up" (Selznick, 1996, p. 271). In short, new institutionalism places importance on taken-for-

granted habits, schemas, and scripts, and how these affect perceptions of what can be considered both appropriate and legitimate action (Scott 2008).

2.5 Culture and Cognition

In "The Social Construction of Reality" (1966), authors Berger and Luckmann argue that 'reality' and 'knowledge' are socially relative; "what is 'real' to a Tibetan monk may not be 'real' to an American businessman" (p.15). Besides acknowledging the variety of empirical forms of 'knowledge', what is perhaps more important is the process by which any form of 'knowledge' becomes 'reality'. Their theory establishes the important, reciprocal link between people and their surroundings through the three processes involved in constructing reality: externalization, when values and beliefs (cultural products) are created, objectification, when these values and beliefs are taken as "fact" (a reality on their own), and internalization, when people learn about the cultural facts through socialization (1966). Thus, the idea that society is composed of people also means that people are themselves composed by society.

In this view, institutions form when habits and routines become fixed. Habitualization occurs because "any action that is repeated frequently becomes cast into a pattern, which can be reproduced with an economy of effort" (p.71), leading to the development of patterns that are predictable and ultimately, choiceless and institutionalized. Due to their social nature, habitualized actions that make up institutions are always shared actions and must be available to all (p.72). As human conduct comes under the control of the institutions, the predictability of behavior increases, and with it the potential for both efficiency and cooperation (Witt & Redding, 2009). Habitualized actions, or routines in institutions, are founded on ideals and values. These ideals and

value serve to legitimate routines and rules; legitimation is necessary because routines and rules are essentially a way to control behavior. Legitimation explains through knowledge, and legitimation justifies through norms (Berger & Luckmann, 1966, p.111). Thus, ideals and values that concern the meaning behind behavior (culture) help to keep the social structure stable and balanced and create a sort of mental 'structure' for societal behavior (Witt & Redding, 2009). It is this cultural environment of an institution and the role of cognition that deserve attention; what counts as 'important' knowledge and/or skills are cultural values (that are themselves determined through reciprocal interaction with society). A focus on cognition implies that "the interaction of culture and organizations is mediated by a socially constructed mind, that is, by patterns of perception and evaluation. People in organizations live with (and welcome) bounded rationality, and they cope with uncertainty by relying on routines, which may become rituals." (Selznick, 1996, p. 274). Values derive from a culminative effort that has occurred over time and is essentially taken-for-granted; in other words, the composition of culture happens at the unconscious level.

2.5.1 Emphasizing the Taken for Granted

How does one go about studying the taken-for-granted? This was attempted by Lynne Zucker, who identified that the degree of institutionalization of a procedure directly affected how the event was perceived. Her study shows the importance of cognitive schema in organizational behavior, as well as a sort of unconscious inclination towards accommodation between dissenting views in the interest of reaching shared objectives.

In her paper "The Role of Institutionalization in Cultural Persistence," Lynne Zucker's 1977 experimental study documents the transmission of culture between individuals and argues that institutions are best understand as "taken-for-granted." The more official or institutional a practice seemed, the easier it was to transmit and be adopted from one group of participants to the next. In terms of persistence, Zucker's experiment showed that the longer a practice had been adopted, the harder it was to deviate from said practice. The less resistance to change, the more persistent a particular culture. Zucker's ethnomethodological approach focuses on highly institutionalized action; similar to Berger and Luckman's theory on the social construction of reality (1967), Zucker's argument is premised on "reality" as exterior, objective, and shared.

To Zucker, cultural transmission (exteriorized values, beliefs, etc.) is best illustrated by generational transmission, where a younger generation is enculturated by an older generation, with each generation "simply believing it is describing an objective reality" (p.85). However, Zucker is interested in the relationship between cultural persistence (of a reality) and institutionalization, with higher institutionalization leading to higher cultural persistence. Through three experiments, Zucker looks at issues of uniformity in transmission, maintenance of culture, and resistance to change (all aspects of persistence) and how these are directly related to institutionalization.

In the experiment, subjects had to report on an observation (time and distance of a light) in numerous contexts – individual, personal influence, organizational, and official – designed to manipulate the degree of institutionalization. As stated, "subjects were much less certain of their accuracy in the personal influence condition than in either of the more institutionalized conditions" (p. 97). Thus, a high degree of institutionalization results in

an equally high generational uniformity, maintenance (no social control), and greater resistance to change. Once social knowledge is institutionalized, it exists as a fact, as a part of objective reality that requires little explanation or justification: "for highly institutionalized acts, it is sufficient for one person simply to tell another that this is how things are done" (Zucker, 1991, p. 83).

Unlike previous studies on persistence that emphasize functional necessity (rewards) or normative (shared norms resulting in internal motivation), Zucker's experiment captures the influence of shared notions of reality, and sits squarely in the cultural-cognitive tradition. As Berger and Luckmann point out, "to say that a segment of human activity has been institutionalized is already to say that this segment of human activity has been subsumed under social control" (1966, p. 73). Thus, 'reality' is an intersubjective world constituted by shared meanings; in other words, it must be known or knowable with others. Actors both maintain and define this reality as objective and exterior. Through the connection between the external and the intersubjective, the "macrolevel and microlevel are inextricable intertwined" (p. 85).

Zucker's experiment emphasizes the role of institutionalization in action based on culture and implies that culture is founded on a desire for predictability and efficiency. However, it does not examine the relationship between authority and what is recognized as "official." Also, the question arises as to whether or not "persistence" would be linked to the same degree with "official" in another society. "How things are done" may work in certain situations (such as in an experiment), but not in others, so empirical forms of knowledge that Berger and Luckmann refer to are not explored (1966). However, it does

identify a process by which forms of knowledge becomes institutionalized, and thus, become part of reality.

2.6 The Three Pillars of Institutions: The Regulative, the Normative, and the Cultural- cognitive

Through an extensive review and consolidation of differing types of institutional theory, Richard Scott's, "Institutions and Organizations: Ideas and Interests," identifies three institutional elements, or "pillars," that are "the central building blocks of institutional structures" (2008, p. 49), with each element providing a different support or foundation for an institutional order. Scott's framework combines the foundations of institutional theory that emphasized the role of formal structures and rules (regulative), "old" institutional theory that emphasizes the internalization and imposition of social beliefs and norms (normative), and the "new" institutional approach where shared, mimetic (reproducible) conceptions both constitute and create social reality (the cultural-cognitive). When shared among groups or individuals, the three pillars of cultural-cognitive frameworks, normative elements and regulatory rules "constitute a recognized area of institutional life" and create a shared organizational field (2008, p. 86).

1) The regulative element is composed of both formal and informal rules backed by surveillance and sanctioning power (pp. 52 - 54). This element involves processes such as rule-setting, inspections and monitoring activities, and sanctioning through rewards and punishments. Sanctioning can induce feelings of "fear/guilt or innocence/incorruptibility" (p. 54). Through its use of rule systems and enforcement mechanisms, the regulatory pillar is coercive and involves the use of authority. According to Scott, regulative elements are common in "impersonal settings, such as markets and

political arenas, where self-interest guides choice but is constrained by law-like frameworks" (Scott, 2012, p. 29). The regulatory pillar focuses attention on the role of the state "as rule maker, referee, and enforcer" (Scott, 2008, p. 53), particularly as coercion by the state is highly legitimated (p. 98). Legitimacy, as in Weber's theory of "voluntary compliance," plays an important role in upholding the regulatory pillar. The ability of the nation-state for legitimate coercion sets it apart from other actors in the environment (p. 98). Thus, the regulatory is often supported (and constrained) by the normative.

2) The normative element and rules and values that are evaluative (including determining preferences) and obligatory (pp. 54-57). Often, normative elements specify proper ways of action, define appropriate goals, and contain ideas of what is fair or just. In this way, they also legitimate specific means for pursuing valued ends (p. 55). To Scott, the normative is associated with feelings and emotions, so that breaking norms includes feelings of shame and disgrace, whereas adhering to them brings feelings of pride and honor (p. 56). Thus, sanctions for non-compliance exist; however, they exist to the extent that norms are internalized (Scott, 2012). In the normative pillar, legitimacy is tied to evaluation of an institution and its activities according to moral obligation, and an individual's concept of what is moral may contradict with an organization's rule, as in the case of whistle-blowers (2008, p. 62).

3) Lastly, the cultural-cognitive element consists of "shared conceptions that constitute the nature of social reality" through "internalized symbolic representations of the world" that mediate 'reality'; shared beliefs are linked to cognitive schemas and frames (p. 57-59). In this way, the cultural-cognitive establishes "the grammar and syntax by which meaning is made" (Scott, 2012, p. 30). Like "new" institutionalism, Scott recognizes the social aspect of this element, as well as the way that symbols (words, signs, gestures) shape meanings that are objectivized. Thus, it is necessary to take into account an actor's subjective interpretation as much as objective conditions. Similar to Zuckers's work on persistence, culture provides patterns of perception, thinking, feeling and acting for both individuals and groups. Because cultural-cognitive legitimacy occurs at the level of taken-for-grantedness and shared understanding (cognition), it is characterized by a permanency and invulnerability to contestation (Colyvas & Jonnson, 2011). Thus, this type of legitimacy is viewed by many institutionalists as the most powerful type of legitimacy awarded to an institution. According to a basic tenet of neoinstitutional theory, structural and normative change occurs only when practices are aligned with an existing cultural framework (Meyer & Scott, 1983; Colyvas & Jonnson, 2011). Alignment with the cultural framework foundationally determines whether an organization is legitimate or not; "organizational legitimacy refers to the degree of cultural support for an organization – the extent to which the array of established cultural accounts provide explanation for its existence, functioning, and jurisdiction, and lack or deny alternatives" (Meyer & Scott, 1983, p. 201).

In his own book review of his book, Scott insists that this framework was intended as an analytical, conceptual tool to "enable investigators to identify what ingredients were at work in varying situations while acknowledging that the elements were often combined together—especially in robust institutions" (2014, p.138). Each of these elements may be supported and reinforced by one another. For example, Colyvas and Jonnson point out in their work on the processes of diffusion and institutionalization,

the spread of a practice (diffusion) can be driven by law (coercion) but lack the normative and cultural-cognitive support to become permanent, or institutionalized (Colyvas & Jonnson, 2009).

These elements "operate through distinctive mechanisms and set in motion disparate processes" (Scott, 2008, p.48); processes relate to how actors make choices, as they create constructs that are employed. Thus, the three pillars framework can be used to understand institutional change by exploring the way members of an organization are held to particular sets of beliefs, as well as the factors that promote dissipation of said beliefs (Palthe, 2014). In her work on managing change in institutions, Plathe points out the swift nature of regulative or structural change, while normative and cognitive change are much slower and complex, involving incremental change and integration of emergent structures (2014, p. 64). However, change is not only in the realm of ideas and structure – there is a material aspect as well. As pointed out by Scott, "schemas not empowered or regenerated by resources would eventually be abandoned and forgotten, just as resources without cultural schemas to direct their use would eventually dissipate and decay" (Scott, 2008, p.50).

In their study on instructional guidance infrastructures in schools, Hopkins and Spillane examine how these elements work to influence teacher beliefs towards teaching mathematics (2015). The regulative element is composed of requirements by school leaders and teachers regarding the use of materials and routines, whether in the classroom or for professional learning; the normative related to work routines and standards of practice and teaching; and the cultural-cognitive of beliefs regarding both what to teach and how to teach it (2015). Their findings illustrate the importance of looking at the three

elements "in interaction, rather than in isolation" (2015, p. 447), and also illustrate that regulative pressures often stem from above and are vertically-driven, whereas normative and cultural-cognitive pressures stem from peers or organizations that are more horizontal.

As these studies suggest, Scott's three pillars framework allows for a broad and comprehensive analysis of an institution or organization work together in "interdependent and mutually reinforcing ways" to create a "powerful social framework" (Scott, 2008, p. 55). Like other institutional theories, this "powerful social framework" implies that institutions are highly resistant to change, and that certain practices, beliefs or outcomes can become "built into" the social order---occurring without substantial effort or mobilization, and resistant to counter-mobilization (Strang & Sine, 2002, p. 498). However, it is the dynamic interaction between pillars that characterizes this resistance, rather than solely cultural-cognitive elements; "When the pillars are aligned, the strength of their combined forces can be formidable" (Scott, 2008, p. 62).

2.7 Effects of the Institutional Environment: Isomorphism, Decoupling, and Loose Coupling

As stated earlier, Scott's three pillars framework draws from an extensive consolidation of key works in institutional theory. This next section examines these key works, beginning with an earlier work on isomorphism that Scott's theory is closely aligned with, particularly through its similar definitions of legitimacy (Thorton et al, 2012). Unlike Scott's theory, which is largely an analytical tool, these key works are empirical studies that focus on issues or theories regarding institutional change. As such, they are key to understanding my case study of GZ and how the school responds to reforms.

2.7.1 Isomorphism – a theory of homogenization and legitimacy

Paul DiMaggio and Walter Powell's article, "Institutional Isomorphism and Collective Rationality," begins with a question regarding the homogeneity of organizational forms and practices (1991). According to the authors, bureaucratization and organizational change aren't due to the spread of Weber's "Iron Cage" built on competition and efficiency, but rather "the result of processes that make organizations more similar without necessarily making them more efficient" (1991, p.64). Unlike other theories that focus on diversity among organizations within a certain populations, the authors argue for an "inexorable push toward homogenization" once a field has become well established (p. 64), and offer a theory of institutional change based on three mechanisms of isomorphic change – coercive, mimetic, and normative.

Coercive isomorphism results from political situations where power is a key issue; pressure on an organization is felt as "force, as persuasion, or as invitations to join in collusion" (DiMaggio & Powell, 1991, p.67). Often, these pressures are demanded by the state or other powerful actors (particularly for organizations that are highly resourcedependent) and imply the threat of sanctions if not adopted. Coercive isomorphism, since it involves power and regulation, is seen in vertical or hierarchical relationships, which distinguishes it from mimetic and normative isomorphism (Boxenbaum & Jonsson, 2008).

Mimetic isomorphism occurs when organizations face uncertainty, which DiMaggio and Powell define as situations involving technology, unclear solutions, and ambiguous goals (1991). In these situations, organizations will model other organizations that have legitimacy or are successful. The authors present mimetic isomorphism as basically a problem-solving approach; however, it is largely a taken-for-granted response that is choiceless, since choice (resistance) seems an option only with coercive isomorphism (Scott, 2008). As Selznick points out, such an analysis "puts more emphasis on compulsive change and adaptation, rather than problem-solving" (1996, p. 274). Nonetheless, mimetic isomorphism has captured the lion's share of research done on isomorphic types, as Mizruchi and Fein demonstrate in their analysis of topics on organizational theory in American journals (1999), largely due to the cultural-cognitive turn in institutional studies.

The last form of isomorphism, normative, deals with pressures from professionalization, where members of an occupation, due to similar education and training, create professional standards and values. Although this form of normative pressure may rest on moral grounds, DiMaggio and Powell use differs strongly from the normative values that exist in society at large, as in the work of Scott, Selznick and Weber. Rather, normative isomorphism is a way of explaining the similar requirements, certifications, etc. of professions that dominate modern organizations.

These three types of isomorphic change – coercive, mimetic, and normative – do not derive from technical change, but are rather the result of wider societal expectations that give an organization legitimacy (Boxenbaum & Jonsson, 2008). These expectations, however, often contradict with internal processes geared towards efficiency, with the result that organizations will "claim to adapt when they in reality do not" (Boxenbaum & Jonsson, 2008, p.2) This form of "ceremonial" adaptation is called decoupling, since

action (internal) is "decoupled" from structure. Here, DiMaggio and Powell draw heavily from John Meyer and Brian Rowan's work, where a large gap exists between formal bureaucratic rational structures and how organizations really operate in postindustrial society (Meyer & Rowan, 1977). This disconnect has created a situation where organizations respond isomorphically to demands and rules in their institutional environment, instead of technical demands of efficiency.

However, an organization faces several problems if its success depends primarily on isomorphism with institutionalized rules. The result of this is decoupling and employing the "logic of confidence" (Meyer and Rowan, 1977, p. 356), where elements of structure are decoupled from activities, and also from one another. Goals become vague, and inspection and evaluation are ceremonial, since inspection and evaluation will only show inefficiency and lack of coordination. This maintenance of "face" that all is well and rosy ultimately reinforces the myths that rationalize an organization's existence, buffering it from technical uncertainty while preserving its formal structure (1977).

2.7.2 Decoupling in Education: The Technical and the Institutional

In neo-institutional theory (henceforth just institutional theory), decoupling allows organizations to seek legitimacy by incorporating or adapting to rationalized myths, even though "they engage in technical 'business as usual'" (Boxenbaum & Jonsson, 2008, p. 79). This creates a type of surface-level adoption, or what is also referred to as "window dressing" changes. Legitimacy is a directive guided by demands from society (and sometimes the state) that organizations must gain by conforming to societal expectations. When these expectations, or rationalized myths, contradict with 'business as usual', the result is decoupling action from structure. Decoupling is thus based on preserving

organizational efficiency (Meyer & Rowan 1977; Boxembaum & Jonnson, 2008); however, numerous studies have illustrated a variety of reasons for decoupling, such as profit/ financial incentives, as well as a desire to avoid uncertainty, particularly if prior decoupling was positive (Westphal & Zajac, 1998, p. 210). Thus, organizations that decouple their activity from structure will try to avoid inspection or scrutiny about their internal operations.

A fundamental text that illustrates decoupling and also provides a framework for understanding why decoupling occurs is "Institutional and technical sources of organizational structure: Explaining the structure of educational organizations" by Meyer, Scott, and Deal, (1981). First, the authors posit that the history of schools has been wrongly viewed as organizations that coordinate the technological work of education – "Educational organizations arose to bring the process of education under a socially standardized set of institutional categories, not necessarily to rationalize the "production processes" involved in carrying out this work." (p. 152). Categories, such as teachers, students, and curricula, are composed of normative rules that give legitimate meaning to the internal activities of schools, shifting focus to certified types, roles and programs. However, schools are consistently criticized for not efficiently managing the process and output of education, in other words, the *technical* work of schools.

While technologies and complex exchanges within an organization create formal bureaucratic structures geared towards efficiency (such as a factory), institutional structures arise through a definition of roles and programs as rational and legitimate (schools). This is a crucial point – organizations concerned with technical flows will closely manage them and try to insulate them from external forces by sealing off

(buffering) their technical core, in order to protect the organization from environmental uncertainty (Thompson, 1967)¹⁷. In contrast, institutional organizations attempt to decouple their technical work from the organizational structure so that it is more aligned and integrated with the institutional framework. In other words, technical organizations (TO's) "face in" towards their technological core while institutional orgs (IO's) "turn away" from their technical core to conform with their institutional environment (Meyer et al, 1981, p. 152). Thus, a school must conform to institutional rules in its environment if it is to receive support and legitimacy for survival. In such an environment, buffering, or decoupling, no longer involves management and coordination, but insulation and concealment.

Based on data gathered from interviews and questionnaires across a sample of schools in the San Francisco Bay area, Meyer et al state that schools are particularly ineffective from a technical perspective; there are no "set" procedures or work processes, and inspection is at a minimum. The institutional perspective, where school structures reflect environmentally created institutional rules, and structures are decoupled or loosely coupled, is much more adept at explaining the issue of stability in organizational structures of schools. In schools, more effort is given to conforming to socially standardized rules and categories than with control and coordination of instructional activities.

Decoupling occurs due to an organizational deemphasis on standardized instruction; "units of the same level (such as classrooms) are permitted and even

¹⁷ The distinction between technical and institutional was first developed by JamesThompson. In his work on open and closed systems, the technical was a closed, rational system, while the institutional was an open system that allowed "the intrusion of variables penetrating from the outside" (Thompson, 1967, p. 12).

encouraged to pursue unrelated or contradictory programs" (p. 175). There is an absence of policy control over instruction and a justification that emphasizes the professional judgment of teachers. In addition, there is a tendency to avoid evaluation of instructional programs and inputs, for conformity to wider rules (such as professionalism) are incompatible with detailed control over technical work. Thus, schools exist in "highly elaborated institutional environments, but poorly developed technical systems" (p. 164). In fact, the authors argue that schools with highly developed technical structures and greater output have less chance at surviving than those with less successful outputs who adhere to the rules of the institutional environment. Tight coupling of the organizational structure with technical activities lowers legitimacy and therefore access to resources, and decreases responsiveness to environmental pressures, which are constantly shifting for schools. Schools whose legitimacy or accreditations (normative professional categories) are questioned will not survive, even if their instructional effectiveness is high (p. 173).

Meyer et al posit that the institutional nature of schools explains the structural homogeneity among schools; a high level of agreement among principals, teachers, and administration about the educational process occurs across schools, rather than *within* schools¹⁸. In addition, all schools structurally conform to institutional rules in order to maintain legitimacy through accreditation, credentials, grades (standardized definition of what grade a student belongs to), and categories of curriculum. As the state increases requirements of credentials, schools must expand their structures to adhere to these, and legitimacy exerts pressure on other schools to follow their lead.

¹⁸ It has been noted that this homogenization may be the result of their sample being in a relatively small area geographically and thus, a culturally-similar area, too.

The distinction between technical and institutional organizations by Meyer et al occurred in 1981; educational policy changes in the States since then have seen an increase in standardized testing, curriculum, and program of instructions that may render their argument less viable. In addition, their distinction has been criticized through studies at the field level that show institutional effects in technical aspects of acquisition and production (Schneiberg & Clemens, 2006, p. 208). As Meyer et al themselves state, there is no *purely* technological form and technology has a way to become institutionalized (p. 177). Nonetheless, their study gives a concrete example of decoupling and schools and educational organizations as examples of institutionalized organizations (1981).

2.7.3 Normative Credentials, Control, and Isomorphism

"Structure of Educational Organizations" by John Meyer and Brian Rowan (1992), expands further the argument that structure in educational organizations is disconnected from technical activity through its focus on large bureaucracies that organize and regulate education (p.71). These bureaucracies have emerged for normative, professional-certifying reasons; unlike the decoupled activities of schools, this bureaucracy is tightly coupled. Standardized categories give both meaning and definition to the internal work of a school, and they are "institutionalized in the legal and normative rules of the wider society" (p.76). Thus, when considering the institutional environment and its relationship to schools, the system as a whole can be defined as both loosely coupled (the processes of education) and tightly coupled (bureaucracy).

Meyer and Rowan begin with the premise that modern education occurs in a public bureaucracy that is part of a wider, world-wide trend that defines the way nation states develop (1992). The perspective of a bureaucracy borrows from elements of Weber, where the more modern we become, the more bureaucratic we become. Essentially, it asks why a bureaucratic organization of schooling has developed in the United States, as inspection and control of learning does not occur – "bureaucratic schooling has not emerged from a need to coordinate and standardize instruction, for this is precisely what modern American educational organizations do not do"¹⁹ (p. 71). However, their argument diverges from Weber in that bureaucracy is not through the need to coordinate and standardize instruction (production), but that nations use education to "incorporate citizens into the political, economic, and status order of society" (p. 83). The state organizes schooling through the use of certifying agencies and accreditation, which has led to a greater corporate control of education.

It is the growth of corporate educational organizations through national development that causes uniformity in schools (1992). In the 20th century, nation-states "have consolidated their control" in social life, and education has become a means of incorporating citizens into society; therefore, they are "increasingly structured by centers of political authority" (p. 83). This is very similar to Weber's idea that one of the reasons for bureaucratization was the need for more control of staff and citizenry (DiMaggio and Powell, 1991, p. 63). A political structuring of education removes education from the classroom and the interaction between the teacher and student (means of instructions), and places it in a larger bureaucratic environment containing a "set of standardized public

¹⁹ It should be noted that this study occurred in 1992; later in this chapter I look at more recent institutional studies on the issue of standardized testing in schools.

credentials used to incorporate citizen personnel in society" (Meyer & Rowan, 1992, p. 83).

To Meyer and Rowan, the increase of credentialing and testing agencies (educational organizations), alongside a linking of educational and corporate identity (what education you have equals what profession/role you have) means that "education becomes the theory of personnel in modern society" (p. 74), making a high degree of standardization and control possible. However, a particularly salient point in Meyer and Rowan's hypothesis is not so much the control of categories by the growing bureaucracy and power of the nation state; rather, it is the fact that the legitimacy of these categories are supported by the public, for the public expects that the categories and credentials present in schooling will be standardized and controlled (Meyer & Rowan, 1992).

Thus, schools (and also the state) are normatively constrained by the expectations of the public, resulting in normative isomorphism consistent with DiMaggio and Powell's theory (1991). Schools maintain "socially agreed-on rites defined in societal myths (or institutionalized rules) of education," and credentials and certification, since educational administrators have little direct authority over instructional work, become "ritual classifications" (p. 76). Unlike inspection of instructional work, "Ritual classification of schools are precisely specified, closely inspected, and tightly controlled" (p. 79). These ritual classifications (institutional rules) are often contradictory, creating decoupling between policy and practice so that schools can adapt to inconsistent and conflicting institutional rules (p. 89).

2.7.4 Loose Coupling

The idea of decoupling in the previous works by DiMaggio and Powell (1991), Meyer and Rowan (1977), and the works on educational organizations by Meyer, Scott, and Deal, (1981), and Meyer and Rowan (1991), all expand on an earlier concept of loose coupling proposed by Karl Weick in "Educational organizations as loosely coupled systems" (1976). According to Weick, manifestations of loosely coupled systems result in situations where several means can produce the same result. It should be noted that the concept of loose coupling is much more comprehensive in scope than the idea of decoupling in institutional theory (Boxenbaum & Jonnson, 2008). Decoupling is a causal response by an organization to irreconcilable institutional and technical pressures, whereas loose coupling is best thought of as a way to approach analysis of any organizational element or system as both technical and institutional (Orton & Weick, 1990).

The concept of loose coupling challenges the (earlier) predominant view of an organization as a system of tightly linked elements bound together in a formal structure based on technical and production needs (Hallett and Ventresca, 2006). Instead, a loosely coupled system is characterized by a lack of coordination between elements, an absence of regulations, and connected networks that can be characterized by slow feedback loops. While these manifestations appear negative, Weick argues they may help an organization adapt and survive, particularly by allowing some parts of an organization to be innovative while lowering the impact of environmental change. The standard view regarding elements in formal organizations is that they are coupled through dense, tight linkages, either through mechanisms of technology, where couplings are task-induced, or authority,

such as positions, offices, responsibilities, opportunities, rewards, and sanctions. In contrast, "loosely coupled" means these elements are often tied together loosely and with various frequencies.

In regards to educational organizations, the premise of Weick's argument is that these organizations do not reflect the standard tenets of bureaucratic theory, where organizations act according to plans and goals selected according to rationalized procedures such as cost-benefit analyses, division of labor, authority, specialized divisions of labor, evaluation, efficiency and profit. Thus, a different set of realities emerges through analysis of educational organizations as loosely coupled systems. In particular, the idea of a loosely coupled system helps to explain why schools remain the same despite numerous reforms (Hallett, 2010).

However, as Meyer and Rowan argue in "Structure of Educational Organizations" (1992), there are certain areas of the educational system that are tightly coupled. The idea of both loose and tight coupling is closer in agreement with an idea proposed by Orton and Weick (1990). In this work, the authors argue that loose coupling has been wrongly seen as the end continuum of a scale of tight and loose coupling; this results in a "unidimensional" interpretation (1990, p. 205). Rather tight and loose coupling should be used dialectically, since organizations and parts of organizations contain both tight and loose coupling.

2.8 The Changing State of Schools

2.8.1 The Impact of the Market

The ideas of educational organizations as decoupled or loosely coupled systems has been a dominant feature of institutional theory since it was first proposed during the late 1970's (Davies et al, 2006). However, since the 1970's, schools have become increasingly defined by standardized testing, charter schools, and market reforms, bringing into question whether or not loose coupling is still valid in analyzing educational organizations. In their article "The New Institutionalism Goes to the Market: The Challenge of Rapid Growth in Private K-12 Education", authors Davies, Quirke, and Aurini argue for the importance of new research because the institutional environment surrounding education has undergone drastic change. In addition, original studies during the 1970's and 80's occurred during an era dominated by "shopping mall public school with its indifferent standards and bland conformity" (2006, p. 105). Thus, the authors hypothesize that "marketlike arrangements in education have the potential to create school organizations" that are not "uniformly isomorphic nor loosely coupled" or "governed by ceremonial conformity" (2006, p. 104).

In their research on private schools and tutoring businesses in Toronto, Canada, Davis et al posit that schools which retain an institutional logic will evade direct inspection and monitoring through non-measurable goals, creating new mandates, or embracing norms of teachers' professional discretion. Meanwhile, "market schools" (private schools), will be prone to reporting outcomes such as test scores, rankings, and quality curricula since they are not under state or board regulations. Tutoring businesses, because they are not accredited, should not be subject to public norms (p. 104). As marketing conditions, such as charter schools (in the US) based on school performances

come to dominate education, the authors presume that market schools will become less isomorphic (through niche behavior) and start to "recouple" instruction and outputs (p. 106).

Davis et al use competitive accountability, or comparative competition, as an indicator of coupling. Elite private schools do this readily; they are tied to rating schemes, institutes, and international programs that indicate competitive rating schemes. However, other types of private schools do not, and neither do tutoring businesses. Instead, they retain a loosely-coupled form and hardly refer to quantitative indicators such as reporting of test scores or university placement rates. Oddly, tutoring businesses do not "guarantee raised school grades" or use external standardized tests to promote their validity (p. 111). For tutoring businesses, guaranteeing any outcome is seen as risky, so non-measurable goals and skills such as self-development and leadership are promoted. Thus, as the authors point out, "the impetus behind these practices comes back to…the benefits of loose coupling (p. 112). Normative pressures 'to keep customers happy" have resulted in certain practices that distract from instructional efficiency (p. 112).

Interestingly, market conditions, already dominated by high-rated elite schools, have forced private schools and businesses to diversify, rather than mimic high-ranking schools, countering theories of isomorphism. Comparison of test scores have forced elite schools to be tightly coupled, while the need to "offer a tailored and individualized educational experience" allows for loose coupling among non-elite private schools and businesses (p. 116). To Davis et al, major tenets of institutional theory, such as isomorphism, were created during an era when governing bodies offered stable funding for obeying certain rules. Loose coupling and decoupling were created during a time of

less inspection and competition for resources. However, the fact that institutional aspects still exist in schools justifies more nuanced studies regarding the application of institutional theory for studying educational organizations in current times.

2.8.2 Inhabited Institutionalism

Another study that reexamines institutional theory in light of changes in educational institutions is Tim Hallett's work "The Myth Incarnate: Recoupling Processes, Turmoil, and Inhabited Institutions in an Urban Elementary School" (2010). Similar to his and Ventresca's earlier work where they argue for dual focus on local activities and practices alongside macro-institutional concerns (2006), Hallett's study argues for an "inhabited view." "Inhabited institutionalism" focuses on "people, their work activities, social interactions, and meaning-making processes, all of which tend to be obscured by the macro-gaze common in contemporary neo-institutionalism" (Hallett, 2010, p. 53). This approach, at the "micro-level" of institutionalization, is much needed since "institutions are sustained, altered, and extinguished as they are enacted by individuals" (Powell & Colyvas, 2008, p. 276). Borrowing from the interactionist approach²⁰ that "treats institutions as constraints while emphasizing the role that human agency and vested interest play in creating, maintaining and changing institutions" (Barley, 2008, p. 495), inhabited institutionalism seeks to understand how social interactions among people in their everyday life within an organization is "conditioned by institutional forces" (Haedicke & Hallett, 2016). As Hallett argues, "taking an inhabited view enables scholars both to analyze how external myths, such as accountability, pressure organizations and to examine the internal manifestation of myths in

²⁰ Developed by the Chicago School of Sociology

organizations and their substantive (in addition to ceremonial) implications" (Hallettt, 2010, p. 53).

2.8.3 Recoupling – Challenges from Changing Times

Hallet's study, a two-year ethnography of an urban elementary school, looks at "recoupling" through the growth of accountability at the elementary school. Drawing from the idea of Meyer and Rowan that myths of formal structure exist and are decoupled from practice and activities, such as surveillance in schools (1983), Hallett examines what happens when myths (such as accountability) are implemented, or "given flesh" (2010, p. 53). "Recoupling" refers to a process where institutional myths and practices that were loosely coupled become tightly coupled (it does not mean that practices were tightly coupled before). In this case, the "myth" of accountability has now become a major theme of education reform in the 21st century, and is legitimated by a neo-liberal belief in the market and competition to improve school performance (Hallett, 2010). In short, reforms created a recoupling between the institutional environment and local practices of ceremonial compliance.

The effects of recoupling on teachers resulted in "turmoil" and "epistemic stress" (p. 62). Before the hiring of a new principal that made increasing accountability her main focus, the school had been operated on a system of high teacher autonomy, low surveillance, and a mix of instructional pedagogies that catered to their diverse student body. Although reforms were seen by the principal as a rational management tool, recoupling "disrupted the teachers' routines and their lives suddenly felt irrational" (p. 63). In addition, the stress of accountability resulted in a lowering of collegial sharing and discussion about instruction.

Hallett's focus on the recoupling process of accountability brings to the forefront the importance of local meaning processes in any situation of school reform. Teachers experienced epistemic distress through "a collapse of meaning concerning the world they took for granted" (p. 67); not only were their cognitive structures, formed from habits and routines, deconstructed and challenged, but these structures were aligned with a particular "culture" where teachers had much more autonomy. The implementation of accountability reforms forced teachers to construct new cognitive structures and create a "new" culture, resulting in "turmoil." This new culture wasn't implemented solely to create more surveillance and exert control over teachers, but from pressure in the institutional environment; the principal had to adopt accountability to maintain legitimacy. Thus, Hallett's study also illustrates a central tenet of institutional theory, that organizations adopt new institutional practices not because it enhances means-ends efficiency (which is the *rationale* behind accountability), but because it "enhances the social legitimacy of the organization and its participants" (Hall & Taylor, p. 949).

2.9 The Institutional Environment in China

Although literature on Chinese institutions and organizations is huge, literature on institutional theory applied to the Chinese context is scant, and to my knowledge, there are no studies where institutional theory is used to understand reforms in Chinese education. In the following section, I examine studies in the areas of business and education in China that have applied major tenets of institutional theory. As will be seen, a common thread in findings is the unique role of the Chinese state, as it creates a centralized framework (structure) in which all other organizations and/or institutions must operate in. For example, Murphy and Johnson, in their work on development

education in China, refer to the centralized, state-controlled nature of schools in China that sets up tensions between the center and the local as the institutional environment that education is embedded in (Murphy & Johnson, 2009, p. 449). The important role of the state, as well as the issue of state ideology/legitimacy, must be taken into account. Organizations are created "within a received and constructed framework of culture and constraint" (Seznick, 1996, p.274), but political processes are particularly influential in shaping culture. In particular, the state is the key resource actor in education (through funding), as well as the key grantor of legitimacy; thus, the role of the state is highly influential. However, the state's role in anything but static; regime change often signals changes in what (or who) is granted legitimacy and resources. In China, more than in other countries, historical context is key to understanding the institutional environment of organizations.

2.10 Institutional Studies on China

2.10.1 A Technical and Institutional Structure of High School Education

In "Stratification of Teachers' Status and the Basis for the Organizational System," Chen Binli (2010) offers a microanalysis of institutional dynamics in two Chinese high schools. His study reveals how organizational structure in schools is supported by cultural, organizational, and inter-relational mechanisms associated with the NCEE (Chen, 2010). According to Chen, the uniform structure of these schools is the result of pressure for increased matriculation rates through high student scores in the NCEE; here schools respond isomorphically to environmental pressures of decentralization and legitimacy. Though his analysis refers to institutional dynamics, the effects are geared towards a 'technical' structure of education (Meyer, Scott & Deal,

1981) that is tightly coupled and concerned with input (exam questions), process (rote memorization), monitoring (evaluations and rankings), and output (exams).

According to Chen (2010), the "exam-oriented" system affects the ordering of subjects within schools; there is a hierarchy where primary subjects (those scoring a fixed percentage in the NCEE, such as math, English, and language arts - Chinese) outrank secondary subjects (those accounting for a lesser percentage of test points). Knowledge is similarly ranked according to "central" and "marginal" subjects, central being those that appear on the exam, while marginal, those that do not (e.g., music, arts, and PE). This "ranking of knowledge" extends to students, administration, and teachers; "in the pursuit of their self-established, exam-oriented goals, all actors conceive an instrumental love for central knowledge while selectively ignoring marginal knowledge" (Chen, 2010, p. 57). Curriculum content in classes is defined through an examination syllabus that administrators distribute yearly to teachers. This syllabus defines relevant areas of subject study for the entrance exam, as well as specified concepts. Through these mechanisms, the NCEE provides an inspection framework and standard of a teacher's ability to teach students, legitimated through the achievement of high examination scores.

Such a framework illustrates a 'technical' structure of schooling that challenges the fundamental assumption in institutional analysis that educational organizations are formed from a socially standardized set of institutional categories rather than adherence to form and function (Meyer, Scott, & Deal, 1981). In addition, a 'technical' explanation based on task stands opposed to the theory of educational organizations as loosely coupled systems (Weick, 1973). In Chen's analysis, the structure and process of education is tightly coupled through the "exam-oriented" system. Nonetheless, normative

and cultural elements associated with "central" and "marginal" knowledge serve to justify a structural hierarchy of teacher position, garnering such benefits as higher pay and status. In addition, pedagogy based on rote memorization rests on cultural traditions towards learning, and the unquestioned practice of taken repeated practice exams is largely "taken-for-granted." In institutional theory, the institutional context defines through legitimacy what actions are rational, for both an organization and an actor. Combined, the technical and the institutional result in enormous pressure on teachers and education as a whole to conform to the NCEE system.

2.10.2 "Surface" Mimetism for Survival

The issue of isomorphic pressures and the strength of legitimacy is well illustrated in a study by Victor Nee and Sonja Opper on the evolution of traditional family businesses into limited liability companies (LLC's) during China's economic reform period of the 1980's and 90's (2012). Unlike Chen's study (2010), where the internal structure of schools is affected, Nee and Opper's study point to "surface" mimetism as a result of institutional pressures (2012). Their study focuses on the registration of private entrepreneurs into "red hat firms," or collective firms under the formal ownership of local governments, despite these businesses being structured, organized, and managed as traditional family businesses. During this period, government restrictions on private enterprise forced growing businesses to register as shareholding cooperatives, an organizational type of the collective economy, or as collectively owned enterprises under the management of the local government (red-hat firms). Besides finding room to maneuver in a growing market, another consideration of private firms was the stigma against private ownership, particularly after the "profiteer" label of the recent Cultural

Revolution. According to the authors, "they sought a modern industrial identity that would allow them to operate private firms outside the collective economy with external legitimacy and social approval" (p. 112). In addition, with the firm legally owned by government, property, resources and technology were always in danger of being taken over and seized by the state.

The authors look at the role of organizational isomorphism and how adoption of a government-owned enterprise structure helped private firms to succeed and survive. Basically, the company retained their former structure despite their state-owned legal form; in other words, "the decoupling between formal organization and workaday practices supports the view that adoption of myths and formal state-sponsored guidelines for a "modern enterprise system" was driven by a search for cognitive and sociopolitical legitimacy" (p.113). Nee and Opper argue that the main problem for these private forms was the was illegitimate status of private enterprise as an organizational form during these eras. Because of a surrounding hostile environment, both social and political, these firms had to 'legitimize' themselves, particularly in regard to developing ties and relationships; "Interest in legitimacy motivates organizations to act outwardly in ways that are perceived by the public as desirable, proper, or appropriate, even if this involves disguising their true nature" (p.113). Due to mimetic isomorphism (of other firms also adopting this practice), this form began to dominate private enterprise in the Yangzi delta area.

Based on qualitative statements by firm owners, Nee and Opper show how decisions to incorporate into these organizational forms were "seldom based on finegrained analysis" of laws, nor an understanding of duties and rights associated with their

legal status, since the Company Law enabling their status "is not strictly followed" (p.116). Private owners sought status, reputation, and legitimacy from outward conformity, while actual practices and functions remained those of an owner-managed firm. According to the authors, this decoupling from formal rules and structures is "based on rational considerations aiming to optimize internal work routines" (p. 122), which sits squarely in line with DiMaggio and Powell's (1991), as well as Meyer and Rowan's idea of decoupling for technical reasons (1983).

Nee and Opper's study on the growth of LLC's in China's economy illustrate the important role of legitimacy and mimetic isomorphism in understanding the structure of Chinese firms. Their 2006 survey showed that "45 percent of the entrepreneurs who follow a distinct organizational blueprint admit to imitating successful domestic firms" (p. 127). Meanwhile, the decoupling of actual operations from duties as LLC's and joint stock companies meant that private companies (on the surface) were the same as government-approved public companies. The author's study illustrates compelling features of institutional theory – isomorphism, legitimacy, and decoupling – as applied to the study of organizations in China. However, responding to market demands and social/cultural pressure through mimetic isomorphism is quite functional in reasoning, and does not take into account the strong role of state.

Nee and Opper's study (2012) eludes to forms of coercive isomorphism through regulations of the state, such as the size of employees in in private firms (p. 110), and how state regulations (Company Law) enabled maneuvering space for firms to become LLC's (p. 112). In addition, firms had to give a legitimate form to the state, as much as they did business associates and society. However, the authors do not elaborate beyond examples. Reza Hasmath and Jennifer Hsu's article on NGO's in China, though, is a good illustration of coercive pressures through the regulatory environment of centralized state control (2014).

2.10.3 Coercive Pressure and Regulations

According to state regulations, public fundraising by NGOs is illegal, so NGO's are reliant on private and institutional donations, making them highly susceptible to donor demands (Hasmath and Hsu, 2014). Because donors and the state restrict the autonomy of NGOs, the authors predict that the NGO sector will succumb to homogenization, due to a high level of predictability gained through interaction with these sources. Their article also examines mimetic and normative pressures as a way of understanding the role that isomorphic pressures have in NGOs and their collaboration with the state.

Mimetic isomorphism should occur as NGOs look at other successful NGOs, and homogenization will occur professionally. However, the authors found that long-standing NGOs, although they marketed services to the state to ensure survivability, were not aware of other NGO strategies, particularly as the sample cut across various sectors. Rather, each NGO's market approach was an "independently derived, pragmatic approach to marketing their material power to local authorities" (2014, p. 943). Within sectors, though, new NGO's tended to model a larger, more successful NGO. There was a danger of being *too* successful, though, as success could also lead to being taken over and incorporated into the government.

The ad hoc environment and relationship with the state meant that many NGO's had not professionalized, and the authors suggest that normative isomorphism would benefit the NGO sector in China. As stated by one NGO, "NGOs need to have the capacity to solve problems, the capacity to provide services. Otherwise the government would not trust your NGO to do work" (p. 947). Although a bit of a Catch-22 situation, it seems that professional capacity was a deciding factor in good standing with the state, illustrating a normative element *through* state control. In addition, developed NGOs in China are often used by the government to increase legitimacy, particularly in the international environment.

The authors point out the strong regulatory nature of the state with NGOs as the main factor for the limited growth and awareness of NGOs in China. However, it was not "simply a matter of time before Chinese NGOs mature" as "any production of knowledge outside of the state arena may challenge the legitimacy of China's Party-state, thereby becoming intolerable and, ultimately, hindering the development of NGOs" (p. 950). Thus, coercive isomorphism was much stronger than either mimetic or normative. In the case of China, where state control is centralized, isomorphism happens quite differently. In both cases, though, the central issue is whether an organization (either private firm or NGO) challenges the authority and legitimacy of the State. In Nee and Opper's study, a successful "red hat" firm, Kelon, got taken over by the government (2012), while in Hasmath and Hsu's, a highly successful, private NGO that raised money for school lunches was quickly incorporated into a government program (2014). These examples serve to illustrate that in any study of institutions and organizations in China, the role of the state must be examined. However, as Nee and Opper's study shows, state power can

also be maneuvered, negotiated, and changed, reflecting a decoupling between formal structure and organizational action.

2.10.4 State Legitimacy

In "Legitimacy and Institutional Change: The Case of China," Bruce Gilley²¹ examines the issue of legitimacy in China through a political lens. Centered on the issue of institutional change and stasis, Gilley offers a "legitimacy-based approach," which he defines as "the degree to which citizens treat the state as rightfully holding and exercising political power" (2008, p. 261). In a comparative study of 72 countries through attitudinal and behavioral indicators in the areas of legality, justification, and consent, China ranked 13, illustrating a high importance attached to legitimacy in political decisions (p. 264). The Party's legitimation as historically "given" according to Marxist and Communist ideology is no longer valid, legitimacy is a central concern of the current CCP. Compared to Mao's era, Deng Xiaoping, Jiang Zemin, and Hu Jintao have all supported the use of rational law and decentralization to bolster their legitimacy. In conclusion, Gilley states, "China's people do not support the regime because they have been co-opted by the state. Rather, they have been co-opted by the state because they believe in its legitimacy" (p. 265). Gilley's work on legitimacy in China has been extended by political scientists who now recognize high legitimacy for the central government, but low legitimacy for local government (Dickson et al, 2017).

The importance of legitimacy for the Party is examined in Bakken's essay, "Norms, Values and Cynical Games with Party Ideology," which discusses an ideological

²¹ Although Gilley has been (rightfully) criticized for arguing for colonialism in a recent publication, I have decided to use his work on China as his scholarship on China is important in the field of political studies.

crisis due to a breakdown between the Party's ideology and prevalent social norms and values (2002). Borrowing from Weber's classifications of authority, Bakken argues that the charismatic leadership of Mao has broken down significantly with successive leaders, and similar to Gilley's argument, legitimacy for China's Communist Party is key. This legitimacy is tied to ideology, and Bakken argues that in China, legitimacy is founded on "moral beliefs, social norms and values" (p. 107). Bakken's works focus strongly on the use of norms as a controlling device in Communist China, particularly in education, with its focus on exemplars, people or events that are held up as models (2000, 2002). In current times, political exemplars are few and far between, at least in those that parallel Maoism. Rather, "legitimacy flows from the dual ability of the regime to uphold order and sustain growth" (2002, p. 111). Such a focus on legitimacy ensures that the Party can avoid the routinization of charisma (and hence authority) that has occurred through its transformation into a bureaucracy based on law and rules (Bakken, 2002).

2.10.5 The Role of Legitimacy in Organizational Structure

In "Paradoxes of Organizational Theory and Research: Using the Case of China to Illustrate National Contingency," Oded Shenkar and Mary Ann von Glinow critique the use of a "western" approach to understanding institutions in a vastly different context such as China (1994). They reveal several shortcomings to the "universality" of organizational theory (mainly resource dependency theory and population ecology theory) when applied to the differing variables of culture, society, and political and economic systems in China (1994). In particular, the authors point to the role of ideology, both Confucianism (authority) and Maoism (communism), in structural change.

Organizational structure "assumes a legitimacy role" that works alongside processes of structural fit to the environment. As demonstrated by findings of Nee and Opper on company structure (2012), an "ideological fit" creates a sort of "sanctified structure" that explains the resistance to change and repetitive nature of organizational behavior (Shenkar & Glinow, 1994, p. 57). In addition, due to the central control of the government in China, organizations are tightly coupled to political and economic systems, rendering processes of selection, diversification, and "niche" behavior inoperable. In regard to institutional theory, Shenkar and Glinow remark that though issues of legitimation are recognized, legitimation itself "is perceived in narrow terms" that excludes "ideology as a powerful force influencing not only organizational structure but virtually every facet of organizational life" (p. 59). Considering Meyer and Rowan's central argument that legitimation functions as ceremonial conformity in institutions, therefore decreasing efficiency and resulting in loose coupling (Meyer & Rowan, 1977), the authors offer a compelling point. The idea of a "sanctified structure" precedes the issue of legitimacy in organizations; there simply is no choice or need in variation, especially given the tight coupling of organizations under the authority and direction of the Communist state; this bears importance to "the extent that centralization of power and resources results in increasing homogenization of structural forms within an organizational sector" (Scott & Meyer, 1991,p.140). Or, as Selznick points out, "the formal structure must itself be seen as an adaptive product, responsive to environmental influences, including cultural definitions of propriety and legitimacy" (Selznick, 1996, p. 274).

2.10.6 The State and Legitimacy in Legal Education

In "Deconstruction and reconstruction of legal education in China: legitimacy and diffusion of an academic discipline from 1949 to 2012," Liu and Ting (2017) examine the growth of legal education into a popular discipline at higher education institutions. In particular, they focus on legitimacy and the role of the state as the key force of institutionalization. Although the authors also examine other tenets of institutional theory such as organizational ecology, the domestic institutional environment, and world culture, the state remains the central driver, enforcer, and legitimator in the growth and diffusion of legal education. Within legal education, funding and admission quotas determined and regulated by the state are "decoupled" from market demand, bringing to bear other factors beyond functionalism or instrumentalism to explain its growth (pp. 558-559); "higher-education institutions are more inclined to compete for applause from the government than for attention from students and donors" (p. 561). In institutional theory, the institutional context helps to define rationality – in this case, legitimacy and reward from the government.

Through textual data (1946 to 2012) garnered from the newspaper *People's Daily*, as well as other historical documents, Liu and Ting (2017) examine the deconstruction, reconstruction, and rationalization of legal education. Particularly in the period of rationalization (1994 to 2012) when a government discourse of "rule by law" had become institutionalized, mimetic isomorphism among higher education institutions helped to drive growth of legal education organizations (LEOs; p. 571). However, this was equally matched by the centralized management of higher education under the state due to tight coupling of university leaders to positions within government. In short, "The

establishment of LEOs in the 1990's can be seen as a show of loyalty and support to the state's emphasis on the rule of law" (p. 572). According to the authors, the pivotal role played by the central government in determining the legitimacy of LEO's "is hardly surprising, given the Communist government's media hegemony and strict control of public resources" (p. 574). Besides these measures, and similar to Gilley (2008) and Bakken's work (2002), what is legitimate changes by regime, and reflects in the historical contexts that have shaped the decline, growth, and finally, institutionalization of legal education.

2:11 Theoretical Framework and Research Questions

In conclusion, institutional theory allows consideration of the values, beliefs, and cognitive structures that uphold the NCEE. The process by which institutionalism occurs is through shared definitions of reality, a social process based not only on similar meanings, but repetitive action as well (Scott 2008). Through repetitive action, institutions, by definition, are slow to change; similar meanings, norms and values that originate within an institutional context both constrain individual action and also support the operation of organizations (Scott, 2008, Palthe, 2014). In my theoretical framework, I employ institutional theory to analyze the data gathered from GZ high school on the NCEE and the initial impact of government reforms of the NCEE system. Such an analysis of the NCEE, along with the ways that stakeholder actions are constrained, reveal institutional barriers to the goals espoused by national policy documents to reform the NCEE system.

The use of Scott's Three Pillars identifies the norms and cultural-cognitive structures of an institution, as well as the regulatory forces and legal frameworks that

enable and constrain both organizational and individual action. As stated by Scott himself (2012), the Three Pillars are an analytical tool for institutions; in this dissertation, I utilize the Three Pillars to identify the regulatory, normative, and cultural-cognitive "pillars" of the NCEE, and illustrate how these pillars support one another. The regulatory pillar focuses attention on the role of the state "as rule maker, referee, and enforcer" (Scott, 2008, p. 53), and considers the legitimacy behind the coercive power of the state. As illustrated by literature on institutional theory applied to the Chinese context, legitimacy aligned with state regulations is key in determining organizational structure (Chen, 2010; Shenkar & Glinow, 1994; Liu & Ting 2016; Hasmath & Hsu, 2014), as well as shaping societal values and beliefs (Nee & Opper, 2012). In addition, the distinction between "technical" and "institutional" organizations by Meyer, Scott, and Deal (1981) in educational organizations illustrates a perspective of schools characterized by decoupling between structure and practice. Of particular importance is the application of this distinction to analyzing Chinese schools, as it suggests that an analysis of NCEE reforms must recognize both technical emphasis on outputs, rankings, and standardized processes, as well as larger forces that exist in the institutional environment; thus, I employ the regulatory, normative and cultural-cognitive pillars of Scott's Three Pillars theory (2008). As such my research questions are as follows:

1. What institutional elements compose the regulatory, normative, and cultural-cognitive pillars of the NCEE?

Specifically:

a) What are examples of law, authority, and/or coercion (regulatory) upholding the NCEE?

b) What moral and/or social obligation (normative) do stakeholders have towards the NCEE?

c) What are examples of cultural support and/or shared understanding towards the NCEE?

2. How do institutional elements of the NCEE serve as barriers to the implementation of new assessment reforms at a high school in Beijing?

CHAPTER 3

METHODOLOGY

3.1 Introduction

To recap the gist of my study, I seek to identify and analyze the regulatory, normative and cultural-cognitive elements of the NCEE, in order to illustrate how these institutional "pillars" (Scott, 2008) are barriers to goals espoused by recent policy reforms to the NCEE. The purpose behind my case study is not to determine the failure or success of these reforms, but to utilize the interaction and tension between the implementation of reforms and the current system at a high school in Beijing. The situation of "challenge" posed by reforms provides an opportunity to bring to the forefront institutionalized assumptions and taken-for-granted beliefs towards the NCEE. In my study, the school represents the site where the institution of the NCEE 'takes place' or is enacted by stakeholders. Data was gathered on norms, values, and beliefs of stakeholders towards the NCEE, reforms, and the broader topic of education.

Collection and analysis of data was informed by an extensive literature on the NCEE, as well as work on Chinese education from historical and sociological studies. Such a broad knowledge base enabled both identification and triangulation of data into the categories of Scott's three pillars (2008). Identifying regulatory, normative, and cultural-cognitive elements build an "institutional landscape" of the NCEE, and allows examination of how these elements "influence organizational life from the outside in", as well as identify the "collective interpretations" of people within GZ school and how they "rework and channel these institutional effects" (Haedicke & Hallet, 2016, p.5).

To capture interpretations of the NCEE, qualitative methods were employed "to provide an in-depth description of a specific program, practice, or setting" (Mertens, 2005, p. 236), and to uncover ascribed beliefs and values held by stakeholders towards the NCEE. The majority of material used comes from interviews (both semi-structured and unstructured), open-ended surveys, and focus groups. However, school announcements, observation, on-line evaluation records, and text from parent/school meetings also offer important and necessary insight, particularly as a form of triangulation.

The effects of the NCEE system create set procedures and behaviors among teachers, students, and administration at GZ high school; for example, home room classes in the 12th grade are an important time for teachers to deal with student test anxiety and pressure. In addition, every subject teacher in 12th grade is required to be at school from 5pm to 7pm twice a week to answer questions. Because of this, I spent much time at school outside of "normal" class hours. During my visits to the school, I observed and interacted with teachers, administration, students, and staff. In this way, collection of data resembled an ethnographic approach. In the methodology of inhabited institutionalism, such an approach "enables researchers to observe how cultural institutions influence and challenge organizational members in ways that are simultaneously cognitive, practical, and emotional." (Haedicke & Hallett, 2006, p. 14).

This chapter contains an explanation of my case study approach and how it explains a larger, general issue (the institution of the NCEE) through a specific example (GZ school) (Merriam, 1998). Background description of the site is given, as well as the rationale for choosing the case site. I then explain my research methods and sampling. A chart of interview participants, as well as a brief description of key titles, roles and positions not easily understood is provided. I then discuss my approach to coding and analysis, which also includes translation and description of key Chinese terms and concepts in education necessary to understanding the findings of this research. Finally, I address issues of validity, and discuss my positionality.

3.2 Research Design

One aim in choosing a case study approach is to provide a rich investigation of a place or phenomena not divorced from context, as "the aim is to understand how behavior and/or processes are influenced by, and influence context" (Hartley, 2004, p. 323). In this case study of GZ high school, the initial implementation of nationally mandated reforms during the first school semester is the context in which this investigation was conducted. This context was purposively chosen; my study posits that institutional elements of the NCEE challenge the goals espoused by recent major policy documents. This 'challenge' of implementing and creating new systems of evaluations alongside new types of support (for administration, students, and teachers) provided an opportunity to bring to the forefront rules, norms and beliefs towards the NCEE that may be less 'visible' under 'regular' conditions. Thus, conducting research at the start of reform implementation was crucial.

Timing was another important criterion for choosing a case study approach, in that the initial implementation of reform provided a bounded, or "finite amount of time for observation" Merriam, 1998, p. 28) – the first semester of school year 2017-18, from the end of August 2017 to the end of January 2018. This bounded time is artificial in the sense that implementation of reforms is still ongoing, and it only captures the beginning semester of policy implementation. Besides the confrontation of new beliefs and systems, the implementation stage of any new reform is marked by uncertainty and confusion. Therefore, who or what became referred to during this period allowed for greater depth and insight into various types of isomorphism (DiMaggio & Powell, 1991).

3.3 Case Site

Founded in 1998, GZ high school is a public-funded urban school, located in a metropolitan area roughly 40 minutes by subway from the city center. The district that GZ belongs to is not a top-performing district (in terms of NCEE scores) for Beijing; however, GZ enjoys a reputation as a top-performing high school *within* its district (highest scores on NCEE for 15 consecutive years in both science and arts streams)²². In this way, it is a key high school, meaning that GZ holds special status for funding within the municipality due to its competitiveness (Kai, 2012). However, in regard to school ranking, GZ is not included in the top 50 high schools of Beijing²³. This distinction is important; top key urban schools at the primary and secondary level are affiliated with prestigious universities and tend to cater to the financially and politically elite upper class.

Nonetheless, due to GZ's long history as the flagship high school for the district, as well as the reputation of its founder, Principal M, it is an important site for districtlevel reform programs designed to improve teaching and educational quality. When GZ

²² This information was provided by participants and then cross-checked with records and information available on the internet.

²³ <u>https://www.eol.cn/e_html/gk/gkrs/index.shtml</u>

was founded in 1998, it was a middle school that grew yearly into a high school; since then it has expanded into 7 other campuses at the primary and middle school level, with a student population totaling 8,000 students. According to teachers and administrators, it is the continual high performance of GZ schools and pressure from the X district education commission (X 教育委员会, *X jiaoyu weiyuanhui*) that has prompted expansion of its many campuses at the primary and middle school level.

However, the high school I collected data at, Gao Zhong, is the only high school, illustrating its exclusivity and competitive entrance requirements. The high school (roughly 800 students) consists of high school grades one to three (the equivalent of grade 10 to 12 in a US high school), as well as "New Grade 1" students, a select group of junior high grade three students (US grade 9) already chosen for 'official' entrance into grade one the following year. According to the director of teachers (主任, *zhuren*), there are around 130 teachers, 32 of which are homeroom²⁴ teachers, across varying subject areas.

The demographic of GZ high school is what can be termed 'middle' to 'upper middle' class. All students have the urban registration (*hukou*) card; national law stipulates that students must take the NCEE in their own hometown, so students must have Beijing residency to attend. In this study, a majority of students interviewed were first generation urban *hukou* residents, with parents having moved from rural areas

 $^{^{24}}$ A homeroom teacher in China, referred to as *banzhuren* (班主任) has more responsibilities that a subject teacher; besides having homeroom at the beginning of the school day, homeroom teachers are responsible for any disciplinary matters, contacting parents, fees, and other school matters. Subject teachers will often talk to a student's homeroom teacher regarding concern over academic performance. For students, homeroom teachers provide emotional care and support as well. According to teachers and admin, it is the principal that decides who a homeroom teacher will be.

through university or job placement. In China's *hukou* system, an urban *hukou* can be applied for through these means, and an urban *hukou* brings its holder educational, social, and work benefits that are denied rural residents.²⁵ Within the sample population of households interviewed (7, excludes the survey number) at least one (sometimes both) parent was employed in a white-collar profession, ranging from teaching, to engineering, to business.

According to sources, ²⁶ all 12th grade students taking the NCEE score high enough to enter first tier universities (一本). Thus, entrance into GZ high school is very competitive; although GZ has numerous subsidiary middle and primary schools, only the top percentile (roughly 10%) from the middle school student population make it into GZ high school.²⁷ Besides the national 中考 (*zhong kao*), or high school entrance examination, would-be entrants must take an additional 'GZ' examination, which further narrows the selection criteria. In my research, the student population I interviewed at GZ high school were all graduates from one of GZ's middle schools, and none knew of any student who had not attended these middle schools.

3.3.1 Choice of Case Site

I chose GZ high school as a research site because of its top ranking within its district and that it has consistently maintained this ranking since 2002 (ranking is based

²⁵ Obtaining an urban *hukou* has become much more difficult, largely due to increasing unemployment among graduates (Liu et al, 2012). Admission into an urban university (for rural residents) only guarantees its holder a "collective" hukou. To secure a "resident" hukou, one must obtain employment with an urban company or government position within three years after graduation. As the tie between university and job placement has steadily decreased in the last ten years, many university students forego applying for a "collective" hukou, since this immediately cancels their "rural" benefits.

²⁶ From interviews and non-MOE websites; no official records were produced.

²⁷ For students who don't make it into GZ, they go to other high schools. This situation may change, as the government keeps issuing new regulations against selectivity, in an effort to increase equity.

on student NCEE scores). Thus, the impact of NCEE reforms would be keenly felt, debated, and discussed at this school. In addition, GZ was an ideal site to study institutional dynamics of the NCEE for three reasons; first, the NCEE system is deeply entrenched and supported within this school. Few students opt to attend foreign universities (largely due to resources), and the principal actively discourages parents and students from this option. In fact, GZ has a college 'program' with a community college in the US, where GZ students must take the NCEE (not the TOEFL or SAT) for admissions.²⁸ Second, because GZ is a top performing school, it often serves as a districtlevel 'model' or pioneer for new policies and reforms. This insured that teachers and administration would be knowledgeable about the reforms and would have considered the impact of them on the 'former' NCEE system. Lastly, GZ would be under considerable pressure to maintain its top position within the competitive ranking system assigned to schools (which also includes funding). As stated by Eisenhardt in her essay on theorybuilding from case studies, "...it makes sense to choose cases such as extreme situations and polar types in which the process of interest is 'transparently observable'" (Eisenhardt, 1989, 537). The NCEE was responsible for GZ's reputation, position, and influence, and the school seemed a favorable case to extend understanding of the institutional dynamics of the NCEE.

In China, permission to conduct research at an educational institution can be difficult to obtain due to government regulations or censorship; investigation and conducting research on educational policy is often viewed as criticism of government policy and the Party. To navigate these regulations, having "relations" (*guanxi*) is crucial,

²⁸ This program is explained further in section 5:5 of Chapter 5, and 6:12 in Chapter 6.

as evidenced by researchers in China who lack access to sites and materials because they lack sufficient *guanxi* (Nordtveit, 2011). *Guanxi* enables one to have 'insider' status (since an 'insider' is vouchsafing for you). It also establishes trust between the recipient and the 'larger group'. Obtaining permission to conduct research at GZ was not difficult, despite restrictions on foreigners that defines China's current regime. This was due to my personal relationship with the school; from 2011 to 2012, I worked as training director for a district-level program to increase communicative English teaching and student-centered teaching and often trained teachers at a GZ primary and middle school.²⁹ In 2016, I contacted GZ as a possible research site, and obtained permission directly from the principal. My relationship with the school is further described in a later section on my position.

3.4 Methodology

As developed in chapters 1 and 4, a historical review and analysis combined with literature identifying social and educational problems of the NCEE provide necessary background knowledge for my research. Within this analysis and review, current policy reforms (placed within a historical chain) as well as the NCEE provide the boundaries of my research. My research contains a lens – a conceptual framework based on tenets of institutional theory (Ch 2). It is a combination of these that 'set the stage': The historical and literature review provide the 'backdrop' to the stage, enabling an understanding of events as they take place, the reforms provide the 'setting', and the conceptual framework, the narrator's (researcher's) 'point of view'. According to Mertens, theory

²⁹ This work included overseeing training at 7 different schools in Beijing. During my job, I observed teachers in English classes, assisted with lesson planning, and gave feedback to teachers. In addition, GZ English teachers would attend biweekly training sessions, with about 40 teachers from other schools.

development in a case study is an essential part of the design phase, with theory being an understanding of what is being studied (1998). This was particularly true for my research, as I sought data to help me both *define* the conceptual categories of Scott's 3 institutional pillars, and also *support* (or *challenge*) the assumption that institutional elements of the NCEE would be a barrier to reform implementation. Thus, my research questions within a broader institutional understanding of how and why the NCEE functions as it does define the kind of data collected and guide my investigative approach.

I employed multiple methods of data collection, as well as flexible and opportunistic methods, particularly as the research progressed. Continuous comparison between data and theory while data collecting (Eisenhardt, 1989), as well as initial coding, brought forth emerging themes and categories from data, as well as new sources for data from stakeholders. This made adhering to a rigid methodology antithetical to the "insight, discovery, and interpretation, rather than hypothesis testing", that characterizes qualitative case studies (Merriam, 1998, p. 28). Multiple data collection methods allowed for triangulation of findings and provided further confirmation for constructs and themes (Eisenhardt, 1989).

My data collection took four and a half months to complete, from September 2017 to mid-January 2018. During this period, I visited GZ high school over 40 times, with each visit varying between 2 to 4 hours in length. I took field notes during these visits to keep track of both observation data and any new theoretical insights. When I began my data collection, I arrived at the site with a detailed methodology of how and when to introduce and conduct research as well as who to collect research from. In addition, I arranged 'set' times for interviews and observations with administrators, teachers, and

students. However, these methods quickly proved unsuitable, for numerous reasons. Adapting to cultural differences, restrictions, and flexible and opportunistic datagathering was crucial to immersing myself in the environment of the school, allowing me to glean an understanding of the NCEE system and the complexities and barriers to reform.

The following sections include my sources and methods of data. At the end of this section, I discuss the differences and restrictions placed on data collecting, not only from a methodological standpoint, but also to lend greater context, detail and description to my case study.

3.5 Research Design

3.5.1 Interviews

As stated by Stake, "the interview is the main road to multiple realities" (Stake, 1995, 63). A significant portion of my data comes from semi-structured and unstructured interviews, all of which were recorded and transcribed, totally almost 28 hours of recorded interviews. On one hand, my strategy of inquiry was phenomenological in approach, as I sought to uncover both meaning and action in stakeholder experiences with and beliefs towards the NCEE, focusing on "the structure and essence of lived experience" (Rossman & Rallis, 2017, p. 6). This involved asking participants to critically self-reflect on their understanding of their experiences with the NCEE, as well as their own experiences and thoughts towards education. On the other, my strategy had a set goal; I wanted a detailed understanding of strategies stakeholders were employing to handle changes brought about by reforms. Through in-depth participant interviews, these

strategies allowed for an inductive analysis of narrative data that revealed patterns, themes, and categories utilized later in analysis (Teddie & Tashakori, 2009).

Prior to interviewing, I had identified particular norms, themes, and assumptions from literature of the NCEE that helped to guide and shape the interview process; these provided a source of triangulation to locate both convergence and divergence toward particular issues. I employed an unstructured to semi-structured interview format that included a "common sequence of interview techniques" (Teddie & Tashakori, 2009, p. 230), moving from a general interview guide approach to more specific and standardized open-ended interview questions (Appendix C). These questions were translated into Chinese and handed to interested participants so that they were aware of interview topics. It should be noted, however, that as time progressed, I used these questions increasingly less. One reason of this was saturation, and the narrowing of focus through prominent themes (Davies, 1997). Particularly with second or third interviews, a rapport had been established, and interviews became more unstructured; these interviews were crucial for delving deeper into values and beliefs, with participants more apt to reveal personal opinions. The second reason for moving away from the questions was the high number of 'scripted' answers among participants; after a few meetings, my interviews had garnered a lot of attention at the school, and participants were talking about content and questions. In particular, teachers who agreed to be interviewed and *had not* been given the questions beforehand, referred to the questions during an interview. Thus, moving away from the questions was a strategic move towards gathering more genuine responses.

In addition to eliciting participant experiences and beliefs towards the NCEE, I also asked questions regarding reform policies and referred directly to a printed version

of policy (in Chinese). At the time of research, every participant I interviewed (teacher, admin, parent, and student) knew of the reforms, though in varying degrees. I employed questions loosely based on a policy process model (Muldavin & Blakie, 2004); for example, what is the problem with the NCEE or current system? Who has defined this problem? How does the new policy solve the problem? A large proportion of participants had vested personal stakes in the reforms, again in varying degrees. The variance of stakes was crucial to understanding the differing institutional logics that revealed themselves in analysis.

I conducted interviews in both Chinese and English, and often, a mixture of both. Since GZ is known for its high quality of foreign language teaching (only English is taught in high school), many of the teachers interviewed were able to speak English; however, at least half of the teachers chose to be interviewed in Chinese. For particularly complex interviews, such as with administrators and the Ministry official, interviews were conducted in Chinese with the help of a translator. Also, I used a translator to interview parents. Interviews conducted by me only in Chinese tended to be the shortest in length, though these still produced a significant amount of text (when translated into English). Chinese is a language of both substance and brevity, and complex ideas can be translated through a few syllables (characters). Thus, participant interviews varied in length, depending on time and the language spoken. Key participants were interviewed three or four times during the research period, particularly before or after key events, such as district exams, parent/teacher meetings, or other school events.

In regard to the medium used, interviews were conducted either face-to-face or through WeChat, an app (invented in China) that allows for video and phone

communication, like Skype. Interviews using this medium are referred to as VoIP (Voice over Internet Protocol) interviews, since they utilize synchronous, or real-time, connection to send both voice and video (Lo Iacono et al, 2016). The use of WeChat was based on convenience – 2 parents (12th grade) worked in different cities or lived in another part of the city too far away to meet, thus broadening the range of participants. Another reason was that one participant, a district commission official, was unwilling to meet face-to-face, and I was not permitted to visit the education commission, despite having gained permission. In addition, due to the politically sensitive nature of talking to a "foreigner" (especially one conducting "foreign" research), WeChat allowed for a degree of anonymity. Finally, some parents expressed preference for this option over a face-to-face interview. Although there were limitations to using this form of interview, such as unclear non-verbal cues (Lo Iacono et al, 2016), I felt the advantages clearly outweighed any disadvantages.

3.5.1.1 Formal Vs. Informal Times

At the beginning of my data collection at GZ, the director of teachers arranged for interview times, as well as focus groups. I would visit the school during arranged times and speak to a set number of people. However, as time went on, I began to conduct "opportunistic" interview times. The reasons for this were practical as well as strategic. In Chinese culture, a "set" meeting time is not strictly adhered to (as in America), and cancelling a set time is not considered rude or unprofessional. Thus, in the beginning, there were quite a few "wasted" hours and trips to the school. Secondly, participants during set interviews seemed nervous and not so willing to engage. Part of this had to do with the hierarchical nature of the school; the principal had tasked the director of teachers

to "arrange" interviews with a set number of teachers per grade. Whether or not these teachers had a choice is debatable – in Chinese culture, if a superior asks or requests something, one is normatively obliged to do it. Decisions are made without consulting those lower down the hierarchy. Although the command from "higher up" was essential (from a permission standpoint), it worked detrimentally, especially as teachers were worried about giving a "correct" (what they viewed as correct in the eyes of their superior) answer. Follow-up questions asking for specific examples and details, along with rephrasing, were crucial to getting below the surface of a "correct" answer (Rossman & Rallis, 2017).

An opportunistic interviewing technique allowed me to maneuver around these obstacles. After a few weeks, I began to visit the school outside of interview times, and soon became a familiar face on campus. I would eat lunch with teachers and talk informally with them about my research. In addition, I was given permission by the principal to visit all parts of the school. As each teacher within a subject area and grade has an office, I would casually visit these offices to see if I could find a potential interviewee³⁰. Going into an office and asking a teacher (or administrator) if they had 20 minutes of free time proved much more successful than set times. These interviews would often last much longer, answers were of greater variety, and participants much more willing to talk. I also visited 12th grade "study corners", areas of the school where 12th grade students would gather on break, or during a study period. Students were quite

³⁰ In Chinese schools, teachers rarely teach more than 3 to 4 classes in a day. The rest of the time is spent in their office, mostly grading tests and papers. In addition, all teachers have office hours after lunch for one period (45 to 50 minutes). During this time, teachers relax and it's common to take a nap. Students can visit, though most use this time to socialize with their friends.

curious about me, and quite a few voluntarily approached me to speak. Of course, student interviews were much less formal, particularly as they seemed less concerned about providing a "correct" answer.

3.5.2 Focus Groups

Although I directed conversation to topics and questions from Appendix C, focus groups were largely unstructured, compared to interviews. I held a total of 4 focus groups with 12th grade students, from Class 1 (science stream) and Class 6 (Fine Arts). With teachers, I held a focus group with 12th grade teachers, and an "informal" (unplanned) focus group with 11th grade teachers. In total, focus groups account for close to 7 hours of recorded time. The purpose of focus groups was an "interest in how individuals form a schema or perspective of a problem" (Mertens, 1998, p. 382), and I employed focus groups to: one, identify unknown themes and perspectives, and two, provide an opportunity for participants to talk about the NCEE and their experiences in a group setting. Within a group setting, differences in participants' beliefs, experiences and values were brought to the forefront, allowing for deeper questioning. This worked well with students, where differences would spark discussion or debate, allowing for varied accounts and understandings towards the NCEE system. With teachers, however, social and cultural factors became a hindrance – issues of seniority (only one person talking) and the Chinese cultural tendency for those in a group not to express disagreement (or express personal opinion) – did not allow for 'discussion'³¹. Nonetheless, these focus groups allowed for deeper insight into hidden dynamics crucial for gaining an

³¹ In an "informal" focus group with 3 teachers in 11th grade, teachers were actively engaged in discussion and debating amongst themselves. 45 minutes into our discussion, the head subject teacher came in to join; for the next 30 minutes, only the head teacher spoke, with the other teachers expressing their agreement.

understanding of dynamics within the school. Focus groups lasted over an hour in length, and for the student groups, were conducted twice – one at the beginning and one at the end of the semester.

3.5.3 Surveys

Open-ended question surveys were used to garner more information from 10th grade parents, at the suggestion of two different 10th grade homeroom teachers, since I had difficulty securing more than three 10th grade parents willing to meet for interviews. These survey questions were geared more towards the reforms and the issue of their child's choice of streams. Questions in Chinese were sent out through the medium of WeChat by homeroom teachers to parents belonging to the parent-teacher committee, and responses were then forwarded to me. A total of 11 parents responded, 6 mothers and 5 fathers (participants are from Class 5 and Class 3 in 10th grade and belong to each home room's parent-teacher committee; there are a total of 14 parents total in this committee). Appendix D lists the questions in both Chinese and English.

3.5.4 Sampling

Sampling of stakeholders for interviews and focus groups was purposeful, based on yielding not only rich information about the NCEE, but also about the reforms. I chose a variety of sampling techniques that included criterion sampling, stratified purposeful sampling, snowball or chain sampling, and convenience (opportunistic) sampling (Rossman & Rallis, 2017). It was important to identify and select participants that "were especially knowledgeable about or experienced with a phenomenon of interest" (Palinkas et al, 2015, p. 534); in my research, I had both the NCEE and also current reforms. In terms of administration at the school, this required interviews with the principal, head

teacher, vice-principal, moral teacher, and the evaluation teacher (I describe these participants and their role/duty within the school in greater detail below). I also interviewed a senior official in the district ministry, in charge of implementing new reforms at all high schools within the district.

Due to stakeholder positions within and relationship to the school, I sought to gather an in-depth and differing perspectives to enable an understanding of the complexity and description necessary for a case study (Rossman & Rallis, 2017). In addition, I sought to capture an image of the school from multiple angles. Types of participants were also chosen to enable a better understanding of the institutional "pillars"; for example, parents would provide different input about the normative and cultural-cognitive elements of the NCEE than teachers, administrators, and students who are under a regulative framework of sanctions. Similarly, for data on reforms and policy, administrators were essential for garnering information and understanding how new regulatory structures were to be navigated. Meanwhile, teachers were essential for discerning professional normative structures, an essential element related to DiMaggio and Powell's work on institutions (1991).

As for teachers, I initially chose to limit my sample to 12th and 10th grade teachers – 12th due to closeness with the NCEE, and 10th for their closeness with the reforms. However, as mentioned earlier, I soon became aware that teachers cycle through grades with students so that all teachers, at least those who had been at the school over a few years, had direct experience with the NCEE. What became important was not the grade taught, but the number of years of teaching. Thus, I actively sought teachers who had worked at the school for many years. The strategy of choosing 10th grade teachers for the

reforms proved conducive, so this did not change; although teachers in other grades knew of the reforms, they were not impacted, and most expressed they would "think about it later." 10th grade teachers, being the initial group impacted by reforms, were crucial to understanding how the school and their classes were handling student choice of subject streams, new requirements of comprehensive evaluation, and parental responses and concerns.

Another important criterion was based on the subject taught. For one, I wanted a range of subject to garner a variety of teaching experiences with the NCEE (stratified purposeful sampling). For the NCEE, there are "core" classes - math, Chinese (language), and English, and "subject stream" classes divided into science (理科, li ke) and arts (文科, wen ke). Science classes include physics, biology, and chemistry; arts classes include history, geography, and politics. The ending of streams for student choice across subject areas is a crucial part of the reforms, so I also wanted to gather data on teachers' perceptions by subjects. Also, I sought to compare differences between "core" and "subject" teachers towards the NCEE, and to engage with different perceptions towards science (explained later in findings). Finally, NCEE reforms include having the opportunity to take the test more than once a year. In Beijing, this was being trialed in English only. Thus, English teachers were important because this part of the reform began in 2017, 12th grade students were required to sit the English section of the NCEE twice, once in December during my field research, and one later in June 2018. As my study progressed, I became aware of the importance of homeroom teachers, head teachers

per grade, and head teachers per subject, and actively sought these out as their responsibilities differed.³²

As stated in section 3:4 of this chapter, initial interviews for teachers were managed and planned by the director of teachers. Participants were chosen by criteria of grade and subject material. In these interviews, I asked teachers to recommend any teacher whom they thought I should speak to, thus employing snowball sampling. Also, quite a few teachers suggested that I speak to a particular teacher about aspects of my research. Later, when I became a familiar fixture at the school, I employed aspects of convenience and opportunistic sampling by asking who was around and who was willing to speak to me. However, these were also criterion-based, as I visited specific subject offices and grades. As stated by Palinkas, each sampling strategy is embedded with "the ability to compare and contrast, to identify similarities and differences in the phenomenon of interest" (2016, p. 534); with criterion and snowball sampling, focus is on particular characteristics (both similar and dissimilar) within a narrow range of variation that parallels the use of central tendency measures (mean, median, and mode)in quantitative studies (Palinkas et al, 2016). Meanwhile, strategies such as stratified purposeful sampling and convenience or opportunistic sampling help to "capture major variations rather than identify a common core, although the latter may emerge in the analysis" (Palinkas, 2015, p. 536).

Sampling for student focus groups was based on criterion, stratified purposeful and convenience sampling. In my application for IRB approval, I specified (for

³² Please refer to Appendix F for an explanation of these categories.

expedience purposes) that I would interview 12th grade students, who were over 18. Also, I requested to speak to both a science and an arts stream class. Although there were 5 classes in 12th grade for the science stream, the director of teachers, and the head teacher for Class One "suggested" I use Class One students. Choosing Class One was also strategic; these students are the "top" achievers in the school among science students and are under a lot of pressure to stay in Class One.³³ For a variety of opinion, I included 1 student from Class Five (another science stream class) who had previously been in Class 1 the year before, as well as a Class 1 student who had progressed up from Class Three the previous year. Class Six was composed of all art stream majors, so I used these students for my second focus group³⁴. Students in both Class 1 and Class 6 were asked to volunteer to participate, resulting in convenience sampling.

Interviews, focus groups, and surveys totaled 67 participants, with a total of 41 females and 26 males. Stakeholders came from the following groups: parents (8 in total for interviews) – 10th grade parents (2 female, 1 male), 12th grade parents (2 female, 3 male), eleven 10th grade parents for surveys (6 female and 5 male), administrators (6 in total): principal (F), vice-principal (M), head teacher (teaching manager) (F), moral teacher (F), the evaluation teacher (F), and the librarian (F). Also, I interviewed the deputy section chief for high schools in the department of basic education, district-level education commission (M). Teachers totaled 25: 10th grade included 11 teachers in the following subjects of physics (1 female, 1 male), math (1 female, 1 male), foreign teacher (F), English language (4 female), geography (M), and Fine Arts (F). 11th grade included 6

³³ The matter of classes and class ranking are explained further in my findings section

³⁴ Due to their low numbers, art students (Class Six) are not ranked.

teachers in Chinese (F), math (F), and English (4 female), and 12th grade included 8 teachers: 2 in physics (M), chemistry (M), history (F), geography (F), Chinese (F), math (M), and English (2 female). 12th grade students included 7 females and 7 males, composed of Class 1, Class 5 and Class 6. In addition, I spoke separately to a Class 1 student (female) and a Class 2 student (male), both of whom were in 12th grade. The table below gives larger categories of interviewees, while Appendix E provides a chart of participants that includes titles and subjects, gender, and length of interview. Appendix F gives greater detail to particular participants, including an explanation of their role within the school.

Table 1: Table of Participants

Category	Number	Gender
Parents (interviews)	8	4 female, 4 male
Parents (surveys)	11	6 female, 5 male
Students (focus group and	16	8 female, 8 male
interview)		
Administration	7	5 female, 2 male
Teachers	25	18 female, 7 male

3.5.5 Observations

Observations took place in various areas of the school; although I had planned to conduct quite a few classroom observations, I soon realized I wouldn't be gathering much data from these. However, for 12th grade, they were crucial to observing preparation for the NCEE "in action." In 12th grade, classes are strictly based on preparing for exam, and subjects have weekly tests, as well as monthly exams (for subject ranking), mid-terms, and semester finals (for district ranking). With so many tests and exams, reviews, and subsequent explanations of scores and marks, classroom behavior and teaching in 12th

grade was very uniform. Also, reforms based on comprehensive evaluations (10th grade) were required *outside* of class hours, as explained to me by 10th grade teachers and the evaluation teacher. I did visit homeroom classes in 10th and 11th grade, to glean an understanding of "moral education" lessons³⁵, and to observe the role of home room teachers, as they have extra duties and requirements.

Thus, I spent many hours of observation "hanging around" areas such as the teacher cafeteria, subject offices, and 12th grade study corners for students. In addition, I attended a few school events, such as the 10th grade drama celebration, a parent-teacher meeting, and the "coming of age" ceremony for 12th graders, held by the school on December 4th. In addition, I visited the school outside of school hours, in evenings, and on Sundays. 12th graders go to school on Sunday to use this time for revision; although optional (as Sunday classes are no longer mandatory, at least in Beijing), most students attend. Because approximately 30% of students, as well as teachers, live at the school, a practice not uncommon across Chinese high schools since students live far away, and evenings allowed for less formal observation of interaction between teachers and students.

3.5.6 School artifacts

In addition to interviews, collecting artifacts enabled a broader understanding of school culture. Bi-weekly school announcements (from the moral teacher) present

³⁵ "Moral" education is a diverse topic (see notes on "moral teacher" Appendix F). I attended homeroom centered on themes of national history and national heroes to glean a better understanding of lessons on "patriotism". Although studies of "patriotic education" have elicited critical responses by scholars due to their focus on Party propaganda of history (Vickers, 2009), the lessons I attended appeared less "serious." Students gave presentations, played "teacher" (to much amusement of their classmates), while the HR teacher took a break at the back of the room and graded papers.

evidence of student norms within the school, especially towards expected school behavior. In addition, they provide insight notions of exemplary behavior and collective norms, as they announce "moral" achievers at the school. Meanwhile, text and power point slides from a 12th grade parent/teacher meeting are invaluable sources for assessing student norms, norms of parents expected by the school, as well as GZ's concerns about the NCEE. These artifacts help to more clearly define the relationship and expected roles between the school, students, parents, and the NCEE, as well as larger social and cultural beliefs.

I also visited the evaluation office of the school to gather pictures and text from the evaluation website for student postings, required by new reforms. According to policy, the website is supposed to be a collection of student portfolio material, material that is an essential component for Comprehensive Quality Evaluations as specified by the text <u>Opinions</u> (2014). These served as evidence of implementation (and degree of implementation) of the reforms, as well as illustrate what is expected for students to display "quality" education.

3.6 Analysis and Coding

3.6.1 Analysis

The conceptual framework of this dissertation relies on the use of Scott's three pillars theory (2008) as analytical categories – the regulative (rules, policies, examples of coercion, and legitimation by authority), normative (examples of moral and/or social obligation), and cultural-cognitive (examples of cultural support and/or shared understanding; Scott, 2008). As stated earlier in Chapter one, framing my research in this

manner gave me a theoretical structure upon which to guide and inform my datagathering; "a priori specification of constructs can also help to shape the initial design of theory-building research." (Eisenhardt, 1989, p. 536). "Initial" is a key word; during data collection, I started to organize and analyze data according to the pillars, and quickly realized the difficulty in capturing emerging findings or themes solely according to Scott's three pillars. Nonetheless, I continued to organize and group data (as much as possible) according to categories reflective of my conceptual framework, while simultaneously keeping notes and creating new categories based on emerging findings. Thus, data analysis during collection involved developing themes and categories through a recursive deductive and inductive process; data derived inductively also helped to further refine and develop the preliminary deductive categories of Scott's three pillars, particularly during the interpretation stage. Finally, data analysis into initial themes and categories assisted decisions about saturation. On one hand, I followed the criteria established by Davies that "a concept can be said to be thoroughly saturated when having gone back for more research, or having researched data for varying angles on it, no new information is coming in" (1997, p.158). On the other, I used criteria established by Cresswell and Miller, where saturation of data is determined through well-established themes and categories (2000).

3.6.2 Coding

After translating and transcribing data into NVivo, I employed thematic coding in order to "break down narrative data into smaller units and then rearrange those units to produce categories that facilitate a better understanding of the research question" (Teddie & Tashakori, 2009, p. 25). Data included interviews, focus groups, field notes, school

artifacts, and text from announcements and the parent-teacher meeting. I did not utilize Scott's categories of the regulative, normative, and cultural-cognitive during the initial stages of coding; in particular, I relied heavily on categorical analysis (Rossman & Rallis, 2017). Codes were divided, collapsed, and regrouped. Becoming immersed in data was crucial for this process, especially as themes began to emerge within categories – for example, the category of "moral education" (different than the subject "moral education") contained statements and references about student character or character traits of people in relation to education. I soon realized the different sets of character traits for students *before* the NCEE compared to *after*, and that the character traits for *after* emphasize the process of the NCEE. In addition, there were different character traits for education referred to by participants that had nothing to do with the NCEE. During these regroupings, I referred back to my deductive categories of regulative, normative, and cultural-cognitive (and their definitions), and decided that "character" should be placed in the normative column. Then, these categories were further divided into "teacher norms" and "student norms." Categorical analysis was thus both inductive and deductive.

Beyond the deductive categories of Scott's three pillars (2008), however, I noticed a dialectical pattern emerge; particular themes and codes in stakeholder data seemed to always have a "counterpoint." This counterpoint is not purely an opposite or difference, but rather one that is complementary, adding greater understanding to a pair of contrasting elements. For example, the heavy reliance on measures to predict a student's NCEE are equally matched by a belief in the unpredictable outcome of the NCEE, and thus, there is reliance on emotions and character. These dialectical

relationships emerged after coding, and inform the presentation of my findings. They are not codes or categories in themselves. I found this pattern fitting; the idea of a paradox *as inherent nature* is a fundamental concept in Chinese philosophy,³⁶ and participant data (in any study) will be expressed through a particular ontology. Referring to my literature review helped not only to identify concepts that can be traced back to Confucian philosophy, but also to gain a deeper understanding of categories.

Emerging themes in categorical analysis were also informed by my field notes on preliminary findings shared both with participants (in particular the principal), my interpreter (a graduate student at university), as well as colleagues at a well-known university in Beijing. Conversations regarding findings and unfamiliar concepts were essential in strengthening, reconceptualizing and clarifying later analysis. After my categorical analysis was complete, I began to apply codes to Scott's three pillars theory; it is the result of this application that informs interpretation of data and theory building. Findings that did not "fit" Scott's definitions of the pillars, for example, rules and laws that were routinely ignored directly contradict Scott's regulatory pillar, compelled me to adjust Scott's categorization of the regulative, normative, and cultural-cognitive, and thus, the roots of institutional theory. Exploring these issues in-depth and in the context of Chinese culture and education allowed for theory building to proceed in a "systematic piercing together of detailed evidence" (Hartley, 2004, p. 324).

³⁶ Chapter 2 of the Tao De Ching says "the high and low incline towards each other"

3.6.2.1 Xintai (心态): A Non-translatable Code

A major code of my findings remains in Chinese, because translation into English does little to capture the nuances of the Chinese characters. English does not have a word or phrase for the concept of *xintai* (心态), which figures so predominantly in data, as well as in Chinese literature on the NCEE. My translator, as well as the dictionary, refer to *xinati* as "mood" or "mentality" in English. To understand this word, it is necessary to start with its two characters, 心 (*xin*) and 态 (*tai*).

Xin translates literally into "heart" in English, yet it is more accurately translated as heart/mind, not in the sense of dichotomy, but in an interdependency between reason and emotion. The concept of *xin* can be seen as "the center of will, emotion, desire, and intellect" that is both "rational and intuitive" (Qi, 2014, p. 167). In works on education (as well as in my intyerview data), *xin* is referred to constantly, yet translations into English will use "mind." In fact, this was the translation most used by participants (however, not all). With *xintai*, however, the melding of reason and emotion becomes clearer.

The word *tai* translates best into "condition" or "state." Thus, *xintai* becomes the condition or state of one's heart/mind that is composed of both reason and emotion. Utilizing the database www.cnki.net (a database of all published papers in China), I ran across numerous articles on *xintai* in the context of the NCEE. These articles stressed the importance of maintaining a "balanced" or "good" *xintai* for the NCEE; most of them were in categorized under "student development and management." One article, titled "Winning the NCEE psychologically" by a principal of a key school in Beijing, emphasizes the importance of a "good attitude" and "remaining calm" not for students,

but for teachers (Zhang, 2002, p. 37). According to Zhang, teachers must remain calm for students to have a sense of security and trust, which is essential for students to maintain a good *xintai* (2002). Another article, again by a principal of a secondary school, expresses the importance of regular exams so that the NCEE is approached as an everyday occurrence faced without tension (Chen, 2015). In this article, *xintai* can be regulated, similar to one's attitude. "Only by accepting one's situation can one have a relaxed, unhurried mentality that will ensure a bright future." (Chen, 2015, 12).

These articles provide necessary meaning to understanding the term *xintai*; as explained to me by participants and colleagues, *xintai* is not only about your attitude or mentality, but how you meet situations or challenges. Thus, it refers not only to one's mental state, but to one's emotions as well. Underlying this is the assumption that both reason and emotion can be regulated. In my findings section, I look deeper into the concept of *xintai*.

3.7 Validity Controls

According to Cresswell and Miller, validity is determined by "how accurately the account represents participants' realities of the social phenomena" (2000, p. 124). However, this accuracy has more to do with inferences drawn from data, rather than the data itself (p. 125). To establish validity, I draw examples from both postpositivists and constructivists paradigms (Creswell & Miller, 2000).

3.7.1 Triangulation

Triangulation was achieved across data sources by comparing participants' perspectives (interviews) on issues or themes. At times, I actively sought triangulation of data through interviews. Student, teacher, and administrator accounts of situations vary; rather than try to establish which one is the most authentic, I report variance in my findings, and offer an interpretation of what variance implies. In addition, school artifacts (as discussed in section 3.5.6) were helpful in establishing validity towards implementation of reforms. In this area, there was a "chain of hierarchy" that allowed for validity checking: MOE policy – district official – principal – director of teachers – teachers – parents.

3.7.1.1 Linguistic Triangulation and Translation

I also used triangulation to validate my own translations of Chinese into English, as well as my interpreter's. While in Beijing, I employed a professional translator to listen to audio recordings and assess the accuracy of my translation (English text); for my interpreter, the translator listened to an audio recording and assessed the accuracy of translation. According to the translator, accuracy for my interpreter was around 85 to 90%. The translator said inaccuracies were largely due to technical terms such as administrative duties or educational terms, and did not distract from the meaning of interpreted texts. For translating Chinese texts into English, and English into Chinese, I relied on English teachers at GZ high school (whose levels are very high), as well as my colleagues at UMass.

Once translated into English, many of the statements by participants needed to be "re-translated" into a more standard form of English. Before I started writing my dissertation, it was pointed out by a colleague that some of my translations made little sense to someone unfamiliar with Chinese. Nonetheless, I kept with my interpretation, thinking that my translation would offer more nuance to statements. However, after

feedback from my advisor, I had to change many of my translations into standard English so that meanings were clearer.

3.7.2 Member Checks

I employed both internal and external member checks. Member checks consists of "taking data and interpretations back to the participants..." to "confirm the credibility of the information and narrative account" (Creswell & Miller, 2000, p. 127). After interviewing, as well as during interviews, I would restate or summarize important parts of my notes back to participants; because some of my interviews were conducted in Chinese, such member checks were essential for checking accuracy of meaning. Due to my rapport with the principal and her vast knowledge and experience in education, I often checked my understanding of concepts derived from traditional Chinese culture to ensure an accurate and reliable interpretation. In particular, the principal insisted that I recap and summarize her accounts back to her.

I also used peer and external member checks to establish credibility of an account – "reviewers not affiliated with the project may help establish validity as well as various readers for whom the account is written" (Creswell & Miller, 2000, p. 125). Peer and external member checks also help to establish validity; these included my interpreter, a graduate student in comparative education at Beijing Normal University; a senior professor and director of the comparative education institute at Beijing Normal University; staff at the admissions office (for new reform policy) of Beijing Normal University; colleagues at the University of Massachusetts; a traditional doctor of Chinese medicine (for traditional Chinese philosophy and teaching practices); and numerous friends both Chinese and foreign.

3.7.3 Authenticity, Positionality and the Insider/Outsider Position

According to Creswell & Miller, social constructivists believe in "pluralistic, interpretive, open-ended, and contextualized (e.g., sensitive to place and situation) perspectives toward reality" (p. 126). Validity procedures for this paradigm include issues of trustworthiness and authenticity. To establish trustworthiness (transferability), I include a large amount of quoted material from participants whenever possible, rather than fragmented phrases or sentences, so that readers are able to gauge a greater portion of meaning. As for authenticity, a few comments are necessary, particularly considering the Chinese context and the situations of "scripted" answers discussed earlier in my interview section.

As mentioned earlier in my choice of case sites, I had *guanxi* with the school prior to conducting research (see section 3:2 Case site); however, this did not automatically confirm my status as a "family member." In Chinese culture and society, there is a distinction between an "outside person" (外人 *wairen*) and a "person from the home/family" or a "family member" (家里人 *jialiren*). As an "outsider", it is very difficult to get access to information or answers beyond the superficial. The Chinese saying "家丑不可外扬" (Bad/disgraceful things that happen in the home should never spread outside) sums up this cultural tradition, and implies that research as an "outsider" will be limited to evidence and information that is considered positive. Such bias presentation of facts is one reason why western scholars in the late 1800's proclaimed that China had no "science" or "facts" (Lam, 2011). As a Chinese friend told me, "All news is good news." There are numerous ways one can be a "family member;" in my case, it was initially established by having *guanxi* with the principal, and my prior work with the school. During my data collection at GZ, participants spoke critically and expressed negative viewpoints. Some of this was "off the record"; due to issues of confidentiality and participant wishes, I do not use this data. However, some of it was not, and had to do with the school's response to the NCEE system, participant actions, etc. While discussing these issues with Chinese peers, they expressed surprise that I was given privy to such ideas, and that I must be thought of as a "family member" by the school and participants, due to the fact that participants were willing to share critical news or accounts. Although I cannot vouch for 100% authenticity of participant accounts and opinions, such data illustrates that I managed to go below the surface of scripted, "good news" answers.

Nonetheless, I'm aware of the complexity of "family" or "insider" status; such status can actually accentuate differences, such as socio-economic differences, between subjects and the researcher (Ganga & Scott, 2006). In addition, one is never fully an "insider", due to power dynamics and the fact that the researcher does not have the same stake in the research outcomes (Ganga & Scott, 2006). In my case, I am an "insider" in many aspects: my prior work for the principal on a government program back in 2011, my experience of living in China for 12 years (thus a familiarity with the country and culture), and the fact that I am ethnically half-Chinese. These brought both advantages and disadvantages. While being a "family" member gave me access to information, it also brought an unforeseen power dynamic; I was "family" because of my relationship with the principal and some teachers felt obliged to participate (see section 3:4 on how I worked around this). In addition, having experience with the school and participants before (in the middle school, not high school) highlights the situational aspects of knowledge gained from research; my interpretation of that knowledge is not and cannot

be value-free (Clifford & Marcus, 1986). Thus so for participant responses, as evidenced by participant surprise that I am familiar with certain Chinese concepts and terms, or by frequent references to American education, in hopes of explaining or accentuating a cultural difference. For example, many teachers had an ideal vision of teaching in America, where American teachers are highly paid and teach only small classes. Such responses reveal that, regardless of my "insider" status, I am a "foreigner," and that participant data is situational, too.

As a final note about my positionality, I refer back to my *guanxi* with the principal, as the idea of *guanxi* may denote an obligation to present the school in a favorable light. In China, *guanxi* involves reciprocity but it is vague as to what reciprocity involves. For example, someone may do you a favor to establish *guanxi* but this does not mean that you must return the favor; rather, you are beholden to them in relationship. During my farewell to the school, I thanked the principal profusely, telling her my research would have been impossible without her help (this was very true). She replied, "No need for thanks; we are friends", which justified her help; the relationship of friend to friend is the only relationship in Confucian culture that is equal.

3.8 Conclusion: Methodology

In conclusion, my methodology, a qualitative case study approach, is chosen as the way to identify the institutional elements of the NCEE that will pose barriers to the goals espoused by recent major policy documents. As institutional elements are at the 'macro' level, I also utilize the methodology of inhabited institutionalism to "observe how cultural institutions influence and challenge organizational members" (Haedicke & Hallett, 2006, p. 14). Material comes from

interviews (both semi-structured and unstructured), open-ended surveys, and focus groups, as well as various school artifacts, and it is from this data that I define the elements of the regulatory, normative, and cultural-cognitive pillars of the NCEE. I began with a deduction that the three pillars would serve as barriers to reform, and this deduction shaped my investigative approach. However, my analysis of data did not utilize these pillars until later in the coding process, and coding was both an inductive and deductive process. Collection and analysis of data was also informed by an extensive literature on the NCEE, historical and sociological studies on Chinese education, as well as member checks. This literature is presented in the next chapter.

CHAPTER 4

HISTORY OF THE NCEE

4.1 Introduction

The historical section of this dissertation examines the many forms of the NCEE throughout Chinese history, beginning with its roots in the imperial system as the *keju* to its current form. Through a detailed examination of the NCEE's social and political role in Chinese history, this section offers a historical perspective of the NCEE as the central institution of Chinese education and the role of exams as a central feature of Chinese education. As Berger and Luckman state in their book *The Social Construction of Reality*,

"Institutions always have a history, of which they are the products. It is impossible to understand an institution adequately without an understanding of the historical process in which it was produced" (1967, p. 72).

From an institution lens, a historical perspective is "not simply to advocate an awareness of changes over time, but to recognize that even when we observe a system at one point in time, we are seeing a cross section of elements that are the residues of diverse past processes (Scott, 1992, p. 162). Identifying these "residues" broadens understanding of the NCEE and puts into context findings in this dissertation.

This history reveals an important and pivotal relationship between China's government and education, particularly through high-stake testing designed to mediate social mobility. Simon Marginson refers to this as a 'Confucian' model of education, with the 'core of the model' characterized by strong nation-state control, where the government plays 'a key role in mobilizing the resources of the societies' (2011, p.89). In China, a defining feature of this 'core' has been centralized control of education through design (structure of schooling), curriculum and testing. This has resulted in a codification

of knowledge and what constitutes knowledge in schools, justified through issues of nation building (Yuan 2001), and national development through social and economic growth (Tsang 2000). However, these issues are areas of conflict, and have been used by political actors to both legitimate and delegitimate state control.

Within the 20th and 21st century, the NCEE has been marked by cyclic declines and rebounds in legitimacy, which reveal the forces by which the NCEE has been destroyed and then later reconstructed. As stated by Barley, "institutions are tied to ideologies championed by specific segments of society that lend the institution legitimacy. As ideologies change, legitimacy will change and, hence, so will the institution" (2008, p. 497). Within the last 100 years, what has been deemed 'knowledge' (curriculum) by the state has swung between the two ideologies of "redness" and "expertise" (Pepper 2000, Tsang 2000). Even longer than this debate has been the tension between "Chinese essence, Western characteristics" *zhongti xiyong* (中体西用), which refers to China's incorporation of Western (foreign) educational practices.

Because of the strong tie between education and ideology in Chinese education, issues of state legitimacy play out within its education system, and political actors have always utilized education for their own means. This is, however, not a one-way path of causality; as the state has expanded its influence and control of the examination process, the examination process has likewise affected state control. For example, Chinese historian Benjamin Elman underscores the important tie between examinations and the maintenance of the political system, stating that "its (the imperial system's) demise was already assured in 1904 when the Qing lost control of the education system" (Cheng, 2009, p. 408), and thus, not only the legitimacy of an unquestioned orthodoxy derived

from Confucianism, but also their connection to a class of gentry-merchant elites who represented a significant portion of economic power since the Ming dynasty (1368–1644).

Similarly, the ending of exams during the Cultural Revolution (1966-1976) was to contribute later to the loss of the Communist Party's political power and social legitimacy; at the end of the Revolution, the infamous Gang of Four were charged with "various 'crimes' against education" and using the "alleged crisis in education to seize power in the party and state" (Doughty, 1978, p. 380). Nowadays, over 40 years later, concerns over current exam reforms reflect a similar anxiety: "To maintain stability for sustainable economic and social growth and to be politically correct, educational authorities have to be cautious in their pace and endeavor for major changes" (Du, 2013, p. 14). In the case of current NCEE reform policy, even though "small or incremental" change is being proposed, it is in the context of directly challenging historically entrenched political issues, cultural values, and social norms.

4.2 Imperial Control and Imperial Concerns: The Keju (科举) and the NCEE

In China, the famous saying "jumping the dragon gate³⁷" is a euphemism that refers to the ability to change one's social position and fortune through education and hard work. Historically, the saying refers to scholar candidates of the *keju*, or imperial exam, who were able to successfully pass the civil service exam (Liu, L., 2012; Zeng, 1999). First instituted in the Sui Dynasty (589-617) and politically reinforced during the Northern Song Dynasty (960-1127; Elman, 2013), the "dragon gate" of education was a guaranteed pathway to social mobility. Higher progression in the examination structure

³⁷ "鲤鱼跳龙门" or "Carp Jumping the Dragon Gate"

led to a higher appointment or position in China's civil service, with corresponding political (and economic) power. Although the *keju* promoted a conservative Confucian ideology that legitimized imperial government and rule, it simultaneously controlled the use of family background, or sib and kinship ties to secure position at court. Conflicts over court appointments characterized many of the power struggles between the imperial court and bureaucracy prior to the codification of the imperial exam during the Ming dynasty, 1368 (Elman, 2013).

In current times, Chinese education (and its resultant social mobility) is still dominated by a high stakes examination system; similar to the imperial system, the higher one scores, the higher rank of university one can attend³⁸. The structure of higher education in China is itself strongly linked to future economic, social, and political opportunity. Because of this, and the growing elitism surrounding educational success, many scholars draw parallels between the NCEE system and the ancient imperial exams (Liu, 2013; Pepper, 2000;Thøgersen , 2002; Kipnis, 2012). Like the *keju*, the NCEE is a form of selection based on merit, and Chinese media and chatrooms abound with concerns over fairness and objectivity. These concerns echo earlier imperial concerns regarding kinship rule; nowadays, the NCEE is seen as a counterbalance against corruption and guanxi in the university admissions process.

4.2.1 Legitimation and Guanxi

In the Ming dynasty, *daoxue*, or "Way Learning", philosophy became orthodox and elevated neo-Confucian thought as the core of literati education. Not only did "Way

³⁸ This is a simplification; quotas and residency also determine the score test-takers need.

learning" help to promote a "partnership" between the imperial court and bureaucracy grounded in the philosophical position of classical learning, it also replaced prior discussion and argument sections of the *keju* with the regurgitation of Confucian classics (Elman, 2013). In this way, it served as a propagator of imperial ideology; the content of civil service examinations promulgated neo-Confucian philosophy, which legitimized imperial rule, the preservation of the status quo, and an imposed value of academic conservatism (Lin, 1995). In addition, officialdom (the literati) was a sanctified institution based, according to Weber, on the ethical power of morality of those who had passed the imperial exam. The imperial exams were characterized by a "universality which in the Confucian sense education alone provides" (Weber, 1951, p. 160), a universality of human character and action embodied in the life of a virtuous, successful scholar.

The *keju* and appointment by Exam was the power structure by which the state during dynastic periods counterbalanced the opposing societal power structure of appointment through sibship, or *guanxi*, (关系). *Guanxi*, as noted earlier (see Chapter 1, section 3, translates to social relationship or connection, having roots in Confucian values of obligation. As Mayfair Yang describes in her article, "The gift economy and state power in China", the use of *guanxi* "lies in the skillful mobilization of moral and cultural imperatives such as obligation and reciprocity in pursuit of both diffuse and calculated instrumental ends" (Yang, 1989, p.35). Though Confucianism provided ideological legitimacy to the Emperor and his rule, it also legitimated an 'opposing' power structure through *guanxi* and family background. The *keju* was employed as a tool of the imperial government as a balance against this, as well as a tool for examinees to

enter, through legitimate means, into the imperial civil service. In this way, the legitimacy of the *keju* was self-perpetuating, as those who had passed the numerous examinations entered into the gentry class. According to Elman, the exam was not only a "major weapon of cultural control" that legitimated the imperial system, but also a "social, political, and cultural nexus of classical values, dynastic power, and gentry status" (Cheng, 2009, p. 410). Thus, the dismantling of exams also brought about the dismantling of cultural, political, and social power that supported the imperial system.

The imperial exam system officially ended in 1904; nonetheless, with the start of the Republic, new magisterial exams replacing the *keju* relied on a similar logic of exams as balance against *guanxi*. For example, in a section dealing with magistracy examinations, the English newspaper <u>The Peking Times</u> stated that it was "by talent alone, and not by intrigues or through favoritism or corrupt influence" that officials were chosen, and not by being "related to some high officials" or having "strong wire-pulling" (Peking Times, 1914, p.4). A year later, the same newspaper berates the public tendency towards *guanxi*:

To the Chinese mind the notion that a magistrate must first provide for his friends, fitting the post to the man, rather than the man to the post, is still sacred – [in reference to students who cannot find employment]. (Peking Times, 1915)

4.3 Reform: Zhongti Xiyong, 中体西用, or "Chinese Essence, Western Functions"

4.3.1 Encountering Defeat

The end of the imperial exam system in 1904 was in part a response to the "backwardness" of China's education system when compared to the scientific and technological advances in the west. Education reformers as early as the mid-1800's began to criticize the traditional and classical knowledge tested in the Imperial exam, many because of contact with European and American traders who pointed out China's reluctance to use scientific facts or gather factual knowledge about their society (Lam, 2011). This was highly embarrassing to the Chinese, a nation which had for millennia regarded itself as "civilized" and foreigners as barbarians or "ghosts" (*gui* or 鬼). In his book "A Passion for Facts : Social Surveys and the Construction of the Chinese Nation-State, 1900-1949", Tong Lam refers to this confrontation with the West as "epistemic violence inflicted by the industrial powers" and that for Chinese intellectuals, the claim of 'backwardness' was like a "a stab to the national psyche" (2011, p.13). Thus began an intellectual and cultural movement among the intelligentsia (many of them overseas educated) driven towards science and modernization that "was able to shatter the old Chinese cultural and moral universe" (Lam, 2011, p.27).

In addition, the transformation of Japan into a modern industrialized nation during the Meiji period (1868-1912) and its subsequent victory in the Sino Japanese War (1894-1895) provided impetus for the Qing government to get rid of the imperial education system and start reforms towards a 'modern' system in 1901 (Yang, 2011). The education system would be characterized by a particular narrative of modernism in the service of state nationalism, for unlike other national movements such as the Meiji Restoration in Japan, "Chinese nationalism and modern state formation sought a rupture with, rather than reinvention of, traditional monarchy" (Yang, 2011, p. 20).

4.3.2 Political Meanings

This point, however, is debatable. Although the reforms of 1901 did create China's first "modern school system", it was instigated by Empress Cixi and was more

concerned with the preservation of dynastic power and legitimacy than any shift towards modern education (Yuan, 2001). For one, the reform did not allow any challenge to Confucian ideology, which emphasized the hierarchical bond of loyalty between subject and ruler. Students were to act according to their status and not comment or criticize state affairs; Confucian principles of propriety justified government authority (Yuan, 2001). Secondly, the imperial edict stressed "Chinese learning for basic principles, western learning for practical uses", the goal being to "assimilate foreign practices and technology in order to strengthen the existing authoritarian regime" (Yuan, 2001, p.195). Within this 'China/West' division, classical knowledge was seen as a hindrance to modernism, while classical values (Confucianism) were used for authoritarianism (Yuan, 2001). The adoption of 'western' knowledge based on science and technology became the palliative cure for an ailing education system, but not for an ailing nation.

Thus, since the early 1900's, knowledge and curriculum in China have been strongly influenced by the international arena. According to comparative education scholar Barbara Schulte, the "Chinese essence, Western functions" (*zhongti xiyong*,中体 西用) debate has created a polarity in Chinese education that pits China's own cultural heritage against the adoption or blind copying of western educational practices (Schulte, 2003). However, a historical review reveals missing layers of analysis that need to be recognized. Firstly, the term "Chinese essence, Western functions" is shortened from the original Qing dynasty slogan "Chinese learning for basic principles, western learning for practical uses" created by Zhang Zhidong, a grand councilor under Empress Cixi (Yuan, 2001, p.196). This slogan has little to do with pedagogy, but imperial values and modern knowledge content instead. During this period, the Qing dynasty insisted on Confucian

knowledge as the moral core of education to secure state legitimacy, viewing Western principles of democracy and freedom as a threat.

This sentiment is reflected in the use of "Chinese essence, Western functions" by the 2nd president of the Republic, Yuan Shikai, to secure his political power. In the Daily News section of the February 26th issue of <u>Peking Times</u>, 1914, an article comments on the public sentiment in China that "what is good for the modern world is not necessarily good for China." The article cites negative reaction by western countries against China's form of democracy, where power was still held by President. President Yuan responded, "Blind copying is now discredited", and the President "knows his own people and his own difficulties" and has the right to work out "his problems in his own way" (p. 4). The nationalist and authoritarian (imperial) undertones to this cannot be ignored.

Such examples of discourse surrounding "Chinese essence, Western functions" serve to illustrate the political nature surrounding reforms in education towards modernization. Although some comparative scholars explain modernization as the result of China's engagement with the west (Yuan, 2001), other scholars suggest that rather than a polarity and a "pitting against", education reform through "Chinese essence/Western practicality" is best looked at as a dynamic interplay (Peterson et al, 2001). Chinese "borrowing" of western educational curriculum and pedagogical practices was, and still is, heavily linked to issues of nationalism, state-building, and society. As stated by Yuan, "Every step of educational reform has involved attempts on the part of the state to penetrate society and transform those norms and values that were seen as blocking the way of progress, variously defined" (Yuan, 2001, p.189). Since the beginning of the 20th century, Chinese nationalism and education have been linked

together in an "arduous pursuit of modernization, science, and national strengthening through economic and military development" (Yang, 2011, p. 19). In this regard, education reform cannot be separated from politics. Like the centralized political control of examinations, curriculum reform has and continues to be state-led, and what is of "Chinese essence" is centralized (political) control of education.

The numerous examples of the adoption of western (modern) curriculum will be mentioned in the following section that offers a detailed history of education reforms and examinations since the Republican period. The adoption of foreign models and curriculum, which includes Japan, Germany, the United States, Soviet Union, and Britain, occurs within an unchanging structure of state control of education and exams. Within the last 20 years, however, an overriding characteristic of reforms is that they challenge China's test-driven system. *Suzhi* (素质) or "quality" education reforms aim to create diverse and holistic learning, a pedagogical goal that is hindered by the NCEE system. The importance of this shift is addressed in the last section of the historical review, which examines recent examination reforms in light of the government aim to secure China's role as a leader in the 21st century world economy (Ministry of Education Outline, 2010). As the first Qing reforms engaged with the 'west', the new reforms are fueled again by international comparison and pressure to compete globally.

4.4 Pre-1949: Modern schooling, Confucian Ideology

During the Qing dynasty (1644 – 1912), the role of the state in education consisted largely of administering the imperial exam; *shuyuan* (书院), schools designed specifically for preparation for the imperial exam, were not run by the government, but were privately funded. Within these academies, teaching was largely filled by candidates

who had failed the imperial exam (Elman, 2000). *Shuyuan* schools existed alongside local schools known as *yixue* (义学), or "charitable" schools, since they charged no tuition. Run on local funding, these schools emphasized classical learning of Confucian texts, but were not geared toward passing the numerous exams that made up the *keju* system. By 1927, regulations at the elementary and secondary level were created by government (Yuan, 2001). However, due to a lack of centralized control (and structure), the result was localized schooling largely autonomous and supported through local funding and taxes (Pepper, 2000).

Unlike limited state control in the actual organization and management of primary and secondary schools during this period, the new Republican government was involved in curriculum reform, reintroducing the study of Confucian classics to combat liberal tendencies in society and democratic theories from the West. Despite a period of relative freedom after the death of Yuan Shikai (1916), when Chinese intellectuals openly championed science and democracy during the New Cultural Movement (1915-21) and the revered May 4th (year) movement (Lam, 2011), the new era was short lived. In 1926, the Nationalist Party implemented policies designed to revive Confucianism again, both in education, and as a political tool of legitimacy. In 1926, all students, teachers, and professors were ordered to join the Nationalist Party, and in 1929, at the Party's third National Congress, Confucianism was re-installed as the ruling ideology of Party (Yuan, 2001). During this period, however, the magistrate and other civil exams were issued by the government, but there was no revival of the old *keju* system, linking education to a job in government. In her article, "Western Influences on Chinese Educational Testing", Niu Wenhua examines a series of wars following the end of the Qing dynasty that made education reform a low priority with the new government. Firstly, there was the warlord era of 1916-1928, the Anti-Japanese war of 1937-1945, and the civil war of 1946-1949 between the GMD and the CCP (Niu, 2007). Considering the level of political, economic, and social instability during this era, Niu claims that the role of the state in education was correspondingly minimal; the centralized government structure had been split both physically and administratively into multiple and separate areas, and little resources were left for the state to devise any type of unified curriculum or textbooks at the national level (2007). The author concludes, "Given these circumstances, it is unsurprising that a modern standardized educational testing system did not materialize and that for the most part, schools and institutions were left to design their own tests for the purposes of admission and assessing students' educational competence" (2007, p. 78).

Nonetheless, there were several examples of efforts towards state-centralized control of education, such as the "Regulations of University Administration" in 1935. This legislation attempted to create the first national university admission system and would bring universities under state control, for the state was very interested in establishing a link with the newly modern-educated elite (Niu, 2007). However, there was strong resistance to this "precursor" of the NCEE by both prominent secondary schools and western missionary schools, who were concerned that a national curriculum would limit the scope and content of education, while the idea of centralized exams would place education again in the power of the government. In addition, the national curriculum was pinned to Confucian ideology that supported the GMD government. As a

result, education institutions at all levels were vastly concerned about the re-linking of education to the propagation and reproduction of a new kind of "imperial" ideology (Pepper, 2000). In 1939, the MOE adopted a unified examination curriculum, design and evaluation, yet this quickly fell apart in the chaos of the Sino-Japanese war (Wu & Ying, 2016).

4.5 1949 and the Soviet Model: A Focus on Science

With the founding of the People's Republic of China in 1949, China turned to the Soviet Union's education system, which included unified plans for student enrollment, job assignment, and centralized curricula. There were many advantages to adopting Soviet education, the most apparent being the ideological "fit" of education in the service of the Communist state. Besides promoting government ideology, the Soviet model also promoted education in the name of economic development, establishing a relationship (and discourse) between education and the economy that remains unchanged today. During this period, mass education was emphasized, and focus was on equity through universal primary school education. It is important to note how drastic of a break universal education was to China; during the Imperial Qing period, education largely catered to those from gentry, military, and merchant background, while peasants, traders, and artisans, women, Buddhists, and Taoists were all barred from taking the Imperial Exam (Cheng, 2009). However, the exclusivity of education prior to 1949 meant that the quantitative increase in education found itself at odds with the reality of education, which was characterized by a dearth of trained teachers and schools (Pepper, 2000).

At the secondary and tertiary level, the new system was equally focused on radical change towards the development of science and technology to increase

industrialization and national defense. In higher education, the government delegated that each province or administrative region would have a university to train scientific research personnel and teachers, with several polytechnics emphasizing engineering (Yang, 2000). Here again the reality of China's situation contrasted significantly with the government's drive towards quality improvement. The elite, urban population had been educated in modern schools, and their aspirations centered on attending the prestigious liberal arts and science universities in the city. Meanwhile, education for rural areas was generally a few years of education (if any) in schools modelled after the traditional *shuyuan* (书院)style, a private school or academy that emphasized classical Confucian learning. As a result, despite the promotion of universal education and the Chinese Communist Party's (CCP's) ideological vision of worker-peasant higher education, the system itself was ultimately more concerned with the promotion of an "elite" education system, with higher education in the service of science and technology (Li & Piachaud, 2004).

The emphasis on science and industry became a key component of state efforts to replace old ways of thought, referred to as "superstitious beliefs" (迷信, *mixin*). Rather than relying on traditional Confucian ideas regarding government and social order like the Republican era, state officials employed a promotion of science through the use of material evidence and logical analysis in the realm of ideology. A realm of "mass science" was created, both as validation for Marxist ideology and as an attempt to modernize the thought of the population (Schmalzer, 2008). The emphasis on science, however, linked higher education to an educated urban class, which monopolized scientific knowledge (Kwong, 1976). Rural education in the countryside during the early 1950's did little more than keep peasants bound to their production teams and villages

(Peterson et al, 2001). Meanwhile, the cultural and social belief of education as a means of social mobility meant that few students applied for newly established rural colleges or 2-year vocational institutions, a belief that still continues today (Schulte, 2003). In short, unequal educational background placed university education (science and technology) largely in the hands of an urban elite. The linking of economic development and education, rather than equalizing educational opportunity and overcoming hierarchical bias in higher education, hearkened back to education serving the elite classes of imperial times.

4.6 A Return to Testing

To an extent, Chinese education was, as argued by Yang Rui, "one hundred percent modelled on the former Soviet Union", not only in higher learning and subjects of study, but also through syllabus, teaching methods, and textbooks (2000, p. 327). However, the Soviet-style centralized model also incorporated "particular Chinese characteristics" (Pepper, 2000, p. 196), such as the development of "key" schools in urban areas to focus talent, unified exams at all levels to determine school ranking, and the creation of a unified national college entrance exam (the NCEE) in 1952. At a functional level, one purpose of the NCEE was to meet required numbers of Soviet-style enrollment plans in higher education and resultant job placements (Pepper, 2000), yet the education model catered to a "governing elite", ensuring the selection of cadres for national and official service (Pepper, 2000). Schools and universities became "training grounds" for future leaders in the Communist Party, ensuring not only correct training necessary for Party leadership, but also proper ideological thought, the latter being an important element of solidifying government control of universities.

In her book "Chinese Education in Transition", Julia Kwong defines faculty at Peking University during the early 1950's as "leftovers from the nationalist regime," with 90.8% belonging to the landlord and bourgeoisie class that "did not accept the ideology of the Communist Party" (1976, p. 27). By the late 1950's, however, the dominance of intellectuals in political thought was to all but disappear Thus, ties between politics and education, as well as the necessary tools for reproduction of the government in education through a shared ideology and selection process, were once again established during the 1950's. Despite a drastic history of numerous wars, three changes in government (Qing, Nationalist, CCP), and the adoption of modern (Soviet) curriculum, the triangular relationship between social mobility, political power, and elitism was once again established through the institution of examinations. Education under communism was unable to free itself from either its imperial or Republic era past.

4.7 Criticism of Copying and Quantitative Growth

By the mid 50's, the education system in China had evolved into an indistinguishable hybrid of both the Soviet model and Chinese adaptation through traditional forms of testing. "In essence, the NCEE was not influenced by the Soviet style of education, but rather by qualities largely inherent to the Chinese tradition" (Niu, 2007, p. 80). The use of national-style curriculum and unified textbooks allowed for centralized educational testing and the reinforcement of the NCEE (Niu, 2007). Yet, among the intellectual class and educators, adaptation was not enough, and they offered significant criticism of the Soviet model and its emphasis on "uniform collective advancement, whereby all activities were required to proceed at the same rate, and the social life of the students, their time, and the content of their self-study were fixed" (Pepper, 2000, p. 229).

This criticism was grounded in traditional Chinese pedagogy that students learn at different paces (as seen in the multi-grade nature of traditional classrooms), an adherence to elitism, and a disenchantment with what was referred to as "mechanical copying." As stated by an anonymous writer in the journal *Jiaoshibao* (教师报), or *Matters of Education*, "…in our education work, we only know mechanical copying. After the 1911 revolution, we copied Japan. During the GMD era, we copied the United States. And after liberation, we copied the Soviet Union…. We have been unable to build our own educational science" (Pepper, 2000, p. 242).

Disenchantment with the Soviet model was also echoed by the government, who stated that the current stress on quantity had resulted in a lack of educated and trained personnel needed for national development and industry. Even Premier Zhou Enlai questioned the ability of Chinese scientists to solve technical issues without Soviet expertise and aid (Pepper, 2000). However, the issue was not only about copying, but the massive growth of education (and subsequent decline in quality) starting from the primary level. Quantitative increase in elementary education led to increases in secondary and higher education, and by 1956, there were too many students at university. This resulted in a total of college graduates within 7 years that exceeded the number of graduates from 1911 to 1949 and a vast difference in the academic attainment of graduates (Pepper, 2000, p. 230).

In order to halt the influx of students and improve the quality of university entrants, stricter college enrollments were introduced. In addition, educational authorities began backpedaling on earlier efforts, particularly those designed to bolster workerpeasant education. For example, middle school and college preparatory secondary

education for worker/peasant cadres or those who had contributed to the Revolution were abolished, due to the fact that these graduates were no longer guaranteed entrance into university (Pepper, 2000). Despite a concerted push for more worker-peasant youth into universities since 1950, after 1957, peasant workers had to take the same NCEE as other students, and they were no longer allowed in on failing test scores. Not only was the elite nature of the examination system and the emphasis on quality in direct contradiction with the communist ideals of the CCP and the movement for mass schooling, but so was the reality of China's need for scientists, technicians, and trained personnel. During this period, the social and political status of the educated elite, particularly scientists, grew significantly (Schmalzer, 2009). In short, a scarcity of educational resources, 'mechanical copying' of Soviet education to achieve heavy industrialization on par with the Soviet Union, and an entrenched elitism in education contributed to strengthening the importance of the NCEE in education.

4.8 The Anti-Right Campaign and the Great Leap Forward: The Swing towards Ideology

Criticism of the Soviet model and mechanical copying was part of Mao's "Let a Hundred Flowers Bloom" campaign, but by 1957, this had expanded to criticism of the CCP, and the government had had enough. The Anti-Rightist Campaign (反右运动; *Fanyou Yundong*) of 1957 were designed to control the political influence and educational power of intellectuals, who, though necessary for the development of the country, were designated part of the bourgeois class, and subject to punishment or "reeducation" through labor. As part of this campaign, the "Down to countryside and up into the mountains" student movement began, which placed urban college graduates in

rural work assignments (Unger, 1982). Although ideological in its purpose, the initiative also combatted the practical reality since 1957 of a serious lack of opportunities for urban graduates, whether in higher education or employment. By 1958, to further strengthen the tie between work and education, all graduates at the secondary level would have to work for a few years before entering university, in order to "enter college as true worker-peasant intellectuals" (Pepper 2000, p. 270).

In February 1958, Mao announced the guidelines for his Great Leap Forward (Pepper, 2000, p. 278). Production targets for industry and agriculture were set at phenomenally high levels in a goal to unify major sectors of society and the economy towards the achievement of communism, and education was also restructured to include work-study programs and *minban* (non-state sector operated, or "people-managed") schools and school fees (Unger 1982; Pepper 2000). Similar to earlier developments in 1957, the movement was both ideological (to get rid of intellectuals), and also practical (to meet the needs of industry and employment). During this year, a new system of college admission was adopted and the NCEE was not held. Higher education institutions became in charge of their own admissions and each gave their own exams (Pepper, 2000). This "decentralized" form of admissions put class origin at the foreground of higher education opportunity, paralleling the ideological climate. Those of intellectual background were discriminated against, while those from families who participated in the Revolution were admitted on recommendation, without taking any entrance exams. Between 1957 to 1959, the rate of admission for those from worker-peasant origin grew from 36% to 51% (Pepper, 2000, p. 282). Nonetheless, the need for "quality control" in

higher education quickly reinstated the NCEE as the principle form of recruitment into university.

During the Great Leap Forward era (1958 to 1961), the reinvigoration of regular schools to meet quantitative growth meant a spike in secondary education, which continued in the earlier tradition of elite education for technical and scientific work, particularly as there was a desperate need to fill higher level jobs in the brigades and communes (Thøgersen, 2002). Quality-oriented key schools (to channel "talent") from grade 1 to 12 were officially established, alongside a ranking system for schools based on student performance in exam scores. Located in urban areas, key schools (重点, *zhongdian*), in comparison to non-key urban schools, enjoyed the majority of funding from the central government as well as priority in policy (Ngok, 2007). According to Pepper, these schools were "a specifically Chinese solution to quality control within a mass, high-growth system" (2000, p. 294).

Ironically, the GLF legitimized the development of these elite schools across the nation, and growth in "quality" once again legitimized the importance of the NCEE. In addition, due to the fact that most key schools were located in urban areas, urban/ rural division was similarly reinforced, with the highest scores at the district level being recruited to the city's key schools (Thøgersen, 2002). And as expansion of universities and higher education was another priority during the GLF, students who made it into senior high school were almost assured entrance into university. Thus, the beginning of the GLF and China's rapid drive towards modernization through quantitative growth in primary and secondary education, combined with an inherited tradition of elitism in education, led "to reproduce more intensely than at any time since 1905 the ancient

Chinese view of education as a means and examination success the chief end" (Pepper, 2000, p. 303).

4.9 Class Origin and Politics: Selection Tools of Ideology

At the beginning of the 1960's, schooling at the primary and secondary level was characterized by an increasingly competitive environment, engendered by a quantitative increase in mass education, and official endorsement of key schools and ranking systems. As stated by Pepper, "the key point system created a kind of artificial island simulating conditions enjoyed in the 1950's... when virtually all of its graduates could continue their studies" (Pepper 2000, p. 325). However, academic success was not the only way to gain entrance to these key schools, and the introduction of class origins and political behavior into the selection process (begun in the GLF) was to pit examination success and promotion rankings directly against government ideology and the new ruling "inheritors" of CCP leadership.

After the importance of ideology established during the GLF, a three-tier form of admission was created for university and key schools at the secondary level (Unger ,1982). Family background became an important and positive determinant of educational priority, particularly for those from Revolutionary and working and peasant background; however, the difference between 1957 and the 60's was that the key-point system had reinforced education as a route towards "elite" status (Unger, 1982; Pepper 2000; Thøgersen 2002). Interestingly, the use of family background to secure position during this period hearkens back to the old sib and kinship ties that characterized much of the power struggles between the imperial court and bureaucracy prior to the codification of the imperial exam during the Ming dynasty (Elman, 2013). The return to such a system

was in direct contradiction to the 'parity' achieved through meritocractic selection based on examination scores.

The "family background" system had a hierarchy of its own (Unger 1982; Pepper 2000); belonging to the "red" class brought privilege. This included pre-Liberation workers (proletariat), the poor and lower middle peasants. Also, army officers and Party officials (revolutionary cadre class) were also included in this class, and these ranked higher than the proletariat and peasant. The "middle class" included professionals, white collar workers, and richer peasants; these were neither recommended nor discredited. The "bad" class was composed of former capitalists, bourgeoisie, and at the lowest rungs, landlords and counter-revolutionaries. On the assumption that certain qualities (political devotion, class consciousness) are inherited, the family background system put the children of CCP leaders and revolutionaries at the top of the education pyramid, and thus, into top performing key schools (Pepper, 2000). However, one could "counteract" negative family background through political performance, which included memorization of Mao thought and demonstrated loyalty to the revolutionary cause and Party. As a result, "a dossier of political performance accompanied each application for higher education" (Unger, 1982, p. 14). During this time, students raced to join the Communist Youth League, securing the power of the Party among the student body from primary school up. Within the schools, the mix between the hierarchies of achievement and the hierarchy of class resulted in increased political battles and competition among students, with only the revolutionary cadre class assured of entrance into higher education.

However, according to Unger's detailed study of education opportunity during the Mao era, the selection process among schools and universities during this period was still

impacted by who was recruiting (1982). For technical schools and high-prestige universities, academic performance weighed high (apart from the cadre class³⁹, which was automatically enrolled), whereas 2-year colleges and district key schools in rural areas put more emphasis on class origin. As a result of these measures, the percentage of college students with a worker or peasant family background kept rising every year: 28% in 1953, 55% in 1958, and 71% in 1965 (Li, 2006, p. 9) With the Party line emphasizing labor classes and political activity, while deriding test-driven education as "detrimental to development of manpower" (Unger, 1982, p. 74), the stage was set for the end of the examination system and its role in education.

4.10 The Cultural Revolution (1966-1976): The End of Exams and A New Form of Selection

In May 1966 the Cultural Revolution began, following a government announcement that counter-revolutionary and bourgeoisie elements were plotting to take over the government. Shortly after, academic classes were suspended and student instruction and activity were spent in repetitive copying and recitation of Mao thought (Pepper, 2000). During the period of the Cultural Revolution, the Party ended the NCEE, branding it as a tool of capitalism, and education was redefined as revolutionary class struggle (Wu & Ying, 2016). Students of the "red" class, known for having struggled to achieve academic results on par with "middle" or "bad" class students, found themselves at the top of the educational ladder. The Cultural Revolution overthrew China's 1500 year-old exam-oriented education system, replacing it with an equally hierarchical system

³⁹ During this period, the cadre class was composed of those working in government, many of whom were recruited by Revolutionaries and belonged to the peasant class.

based on class origin and political performance (Thøgersen, 2002). The abolishment of the NCEE led to a new form of admission based on class. As stated by Mao's speech to the Central Committee on June 13, university admission was to be decided by "a combination of recommendation and selection in which proletariat politics are right to the fore... the old examination system is a serious violation of the Party's class line" (Unger, 1982, p. 114). This policy even extended to entrance exams into middle school. Thus, among students from middle school on, the former competitive battle of academics was replaced with radical competition to display activism (to be "red"), often to overcome the official branding of inherited class. In the words of a former student from that period:

The red origin kids argued that previously when classrooms were dominated socially and academically by the kids of the professionals, they hadn't had the opportunity to show their true activism and worth. They said, '*now* we'll show you how active we can be.' Were they ever! (Unger, 1982, p. 116)

As the Revolution continued, political activism dwindled and class background became the most important criteria, resulting in "blood-line" rankings among Red Guard students⁴⁰. The Red Guards and their activities were disbanded by the People's Liberation Army in 1968, and groups of students were forced to return home, where many were sent to work, in either urban or rural areas(Pepper, 2000). Only a few were able to continue onto university (Unger ,1982);the correlation between higher education achievement based on family education and status had been effectively ended (Li, 2006).

During the Cultural Revolution, education was not only a tool of revolution, but the purpose of education was revolution itself (Chan, 1992). As stated by Chan in his analysis of the Revolution, "The direct participation of the masses in political affairs was

⁴⁰ The Red Guard was a paramilitary group of students (youths) dedicated to defending Maoism and promoting revolution.

part and parcel of their eventual education and purification" (Chan, 1992, p. 91). The goal of total social revolution through Mao's thought had completely politicized the nature of education and destroyed the structure of testing, curriculum, and the NCEE.

4.11 Post Revolution: Intellectual Elitism remains

The aftermath of the Cultural Revolution had to address two separate "streams" of secondary education that had developed during the Great Leap Forward: one, the elite university path centered on advanced technical and scientific education, and two, the "middle-level" system, focused on 2-year colleges and vocational schools (Pepper, 2000). Although different, these streams were both geared towards national development and industry. However, "national development", now in control of radicals and left-leaning members of the Party, was redefined to emphasize "socialist laborers" and "nonadvanced technologies" at the expense of "sophisticated industries" and "experts" (Unger, 1982, p. 140). The factory now symbolized the end of the education ladder, with jobs assigned with no regard to academic achievement (Unger, 1982). For others, the "Down to the Countryside movement" placed them in agricultural work (Unger, 1982; Pepper, 2000) This era signified a complete break between education attainment and economic position; most significantly, for a large part of the population, it also signaled an end to a 1,500 year-old tradition of social mobility through primary and secondary education.

In the years after the Cultural Revolution, admission to higher education was by recommendation from commune leaders and Party officials. In 1972, universities began to enroll new students again, and quota systems were developed to give equal opportunity to rural and peasant youth, who were still discriminated against in favor of rusticated

urban youths and children of the Army (Unger, 1982; Liu, 2012). Thus, remnants of elite hierarchy still remained, despite the "levelling" of education. As stated by Schmalzer in her work on the history of science in the PRC, Cultural Revolution policies like "opendoor science" and having scientists "stand aside to let the masses lead" attempted to do away with intellectual elitism; however, these efforts failed. Despite the stated ideology, the State perceived "the masses as superstitious" (Schmalzer, 2009, p. 294).

Top universities claimed to need the skills of urban-educated students, and a placement to study mathematics and technical science meant that a student wouldn't have to return back to the commune or factory after graduating (Thøgersen, 2002; Pepper 2000). With prospects of urban jobs, the "free admission with recommendation" system worked largely in favor of Party and commune leaders' children. For example, at Beijing University from 1974 to 1976, 30 to 50% of the student body was composed of sons and daughters of Party officials (Unger, 1982, p. 194). This system, known as "back door" entrance, was highly criticized by the public and sectors of the government; in 1973, university exams were held for science-based degrees, utilizing an open book method popularized by key schools during this period (Liu, 2015). However, under pressure from Mao, this system lasted only one year, and the recommendation system was to remain in practice until the reinstatement of university exams in 1977.

4.12 The Reinstatement of the NCCE: The Four Modernizations and Opening Up

The death of Mao in 1976 led to the end of the radical era and the subsequent overthrow of the Gang of Four, who were charged with using the "alleged crisis in education to seize power in the party and state" (Doughty, 1978, p. 380). Education

reform by the MOE under Deng Xiaoping in 1977 reinstated not only the NCEE⁴¹, but also entrance exams for junior and high school admission. The exam system was heralded as an end to the corrupt nomination/recommendation that led to nepotism during 1968 to 1977, yet the disastrous effects from this era were to influence education for over a decade (Pepper, 2000). To revamp failing industries and the economy, Deng tied education directly to the Four Modernizations, which included agriculture, industry, defense, and science and technology (Liu, 2012). Political rhetoric emphasized the need for "catching up to the West through science and technology, with education key to national wealth and power" (Pepper, 2000, p. 532). Learning from the capitalist West was promoted as it was during the Republican Era; however, with the cultural tradition of testing. Thus, the purpose of education again became the selection of students based on exams; academic competitiveness during this period was even more pronounced, as well as "more elitist and talent-oriented that any that existed in fifties" (Unger, 1982, p. 207), particularly as Deng himself espoused inequality as a way to promote growth (Li, 2006).

The extreme degree of competitiveness characterizing the first few years of the exam was due partly to the millions dislocated to the countryside vying to return to urban life, as well as the massive expansion of the education system during the 1960's, when junior high school education became an accepted norm for employment in the countryside (Thøgersen , 2002). In addition, restrictions on the number of high school graduates, a common practice during the post-Cultural Revolution era, ended. Education was again linked to national and economic development, and the key-point system of exams and weighted resources relied upon to achieve this, illustrating the dependent

⁴¹ "Advices on Higher Education Examination", MOE, 1977.

relationship between schools and government backing. Top schools became "bottlenecks controlling the flow of rural youth up the social ladder and away from villages" (Thøgersen, 2002, p. 208). Meanwhile, the children of cadres and intellectuals once again returned to key schools, helping to solidify an elite group of urban students and an elite set of schools. Still, in interviews conducted regarding the elitist trend in education during this period, rural participants were highly supportive of the selection principle of exams (Thøgersen, 2002). Underlying the reformed system was an unquestioned assumption about the objective and equitable nature of testing.

The CCP under Deng's rule effectively severed the tie between education and its political role of revolution. "The Maoist legacy of class struggle, mass movements, and cultural revolution as a safeguard against capitalist restoration was repudiated... gone as well were both the negative discrimination against all the old enemies and positive discrimination in favor of the formerly disadvantaged blue-collar classes" (Pepper, 2000, p. 532). With education linked to national and economic development, academic achievement replaced the Cultural Revolution's focus on class struggle and revolution. By the early 1980's, the CCP further solidified the elitist role of education by making higher education a prerequisite for bureaucratic positions within the government, even at the provincial level⁴². This was based on the idea that "superior learning qualified higher-level intellectuals for public leadership" (Pepper, 2000, p. 532). Within public discourse, however, the distinction between mass and elite education was not allowed, a feature that still rings true today (Murphy, 2004).

⁴² In 1978, 2% of officials at the county and municipal level had college degrees; by 1984, this percentage was 51% (Cheng & White, 1990).

4.13 The NCEE Lives On: Stability through Reform

Since the reinstatement of the NCEE in 1978, the exam has remained as the culmination and indicator of educational achievement and learning. Nonetheless, there have been numerous reforms to the exam itself, largely stemming from resistance against an undifferentiated national curriculum, and thus, a uniform NCEE. In 1986, the State Education Commission (which is now the Ministry of Education) initiated the first secondary school curriculum reform since 1949 (Marton, 2006). Initially starting in Shanghai, this resulted in new curriculum materials that corresponded to provincial socioeconomic circumstances. Certain provinces were allowed to develop their own NCEE (Shanghai being the first in 1986), with the result that there are now fifteen different versions of NCEE papers, although the "national" version is by far the most prevalent (Liu, 2012). Because the Exam is administered at the provincial level, variations of the NCEE at the local level exist⁴³. In 1999, the MOE promulgated the document Promotional Activity Plan of Education in the 21st Century to promote "allround development and aptitude as the core" of the NCEE (Wu & Ying, 2016, p.8), with focus on problem-solving abilities (Yu & Suen, 2005). This document created the "3 + X" format that characterized the NCEE until current reforms. "3" stands for the standard courses of language (Chinese), mathematics, and foreign language (English), while "X" refers to a comprehensive subject test in either Fine Art (文科), or science (理科).

4.14 The Issue of Quotas and Cut-off Scores

Local variation in the NCEE system also exists in NCEE scoring (residency) and university admission policies, which reflect socio-economic differences among

⁴³ Because high school curriculum varies at the provincial level.

population groups and geographical areas (Ross & Wang, 2010). Educational policies address rural/urban disparity and admission quota inequality from a discourse of a "harmonious society" and "people-centered development" (Mok, 2012, p.230). From 2006 to 2010, The National Education Examination Authority (part of the State Education Commission) created new institutions and offices at the national, provincial, and municipal levels to assist with logistical arrangements, enhance security and inspection, and create a standardization of examination venues and environments, all in an effort to promote fairness and equality with a "harmonious society" (Wu & Ying, 2016). In addition, it is the provincial Examination Authority that determines the appropriate minimum admission score for each tier of universities (although approved at the national Ministry level). This score is the provincial Admission Score Cutoff Line (ASCL).

In a system that has been highly criticized by scholars, scores vary according to where one's *hukou*, or residence card, is from. Urban residents are given a higher quota at universities, which significantly lowers the cut-off score needed to get into a 1st tier university.⁴⁴ Referred to as the differentiated selection system (Liu, 2015), cut-off scores for different tiers of university are determined at the provincial level, and take into account the distribution of NCEE scores for that year. In addition to residency, whether one is majoring in science or Fine Arts also factors in; Fine Arts is often lower than science, as more high school students in China major in science. For the prestigious 211

⁴⁴ According to Beijing University's website, the score for admission (2018) in the science stream for Beijing residents was 680; for residents from Hebei, 696; for residents from Sichuan, 701. In addition, more places are allocated for Beijing residents, which lowers their ASCL score. It should be noted that the ASCL changes every year based on the number of applicants, test scores, quotas, and available spaces at university. (https://www.gotopku.cn/programa/admitline/7.html)

and 985 universities in China⁴⁵ (985 universities are 39 universities often equated to the US's Ivy League, while 211 universities are over 100 top universities in science), the score for science is around 620 (for urban residents). In the Beijing exam, the three required subjects of Chinese, math and English (foreign language) are 150 points each. For those in science, physics is 120 points, biology is 80 points, and chemistry is 100 points. For fine arts, the subjects of geography, politics, and history each garner 100 points.

4.15 Decentralized Funding

Since the 1980's, China's primary and secondary education system has been characterized by decentralization. Announced in 1985, through the CCP <u>Decision on the</u> <u>Reform of the Educational Structure</u>, local governments became responsible for pretertiary education (primary and junior high school) provision, and the state decentralized funding. This disproportionately affected rural areas, as the low tax base from agriculture meant that rural households had to pay for education (Murphy & Johnson, 2009). In 1986, the <u>Compulsory Education Law of the People's Republic of China</u> made pretertiary education mandatory (Lu, 2014). However, funding regulations remained vague, and provincial level governments further decentralized to county or township level government, who in turn placed the onus of funding on parents. <u>The Program for</u> <u>Education Reform and Development</u> (1993) attempted to attract private funding to support educational development. In 2002, the State Council declared that county-level

⁴⁵ Similar to the criticism of the hukou, the 985 and 211 projects have been similarly criticized for unequal funding. In 2011, these top universities counted for 3% of institutions and enrolled only 6% of the higher education student population, receiving over 61.2% of science-based funding and enroll two-thirds of PhD students in the country (Chan & Ngok, 2011, p.297). In addition, top universities in rural areas are often overlooked, due to an inability to procure local funding as assistance to government funding (Sohu news) https://news.sohu.com/20141118/n406143123.shtml

government would be primarily responsible for financing pre-tertiary education (roughly 70%), which oddly boosted the legitimacy of the central government (Lu, 2014). Thus, according to the MOE and China National Bureau of Statistics, educational spending at the national state level in 2006 was fifteen percent of all educational contributions, compared to 76 percent in 1986 (Zhao & Qiu, 2012, p.314).

Though the central government still determines and controls testing, system reforms, curriculum, and pedagogical changes, they are no longer in control of funding schools due to decentralization. In their essay "Questionable education lessons from China" by Zhao, Haste, and Selman, the authors claim that rapid decentralization in the '80s through the shifting of funding and management to lower levels of government has left schools open to market forces (2014). Thus, the NCEE and student scores have become part of a market competition among schools for funding, outside of student fees and the offering of after-school classes (both of which are supposedly illegal today). This has simultaneously raised the importance of the NCEE and testing. "Today, to compete for educational resources, Chinese schools do all they can to outperform other schools on student test scores" (Zhao et al, 2014, p. 32). Thus, school culture towards test-oriented education, determined as much by market competition as values held by stakeholders (students, parents, and teachers), remains unchanged (Liu & Dunne, 2009; Zhao & Qiu, 2012).

4.15.1 Decentralized Curriculum: Quality Education

Accompanying the trend in decentralization has been a series of reforms under the banner of "quality" or *suzhi* education. As mentioned earlier in Chapter 1⁴⁶, *suzhi* education has dominated attempts at reforms of the "excesses of yingshi jiaoyu", (应试教育)" or examination-oriented education (Dello-Iacovo, 2009, p. 241). The 1986 Compulsory Education Law formalized nine years schooling and officially introduced *suzhi* (quality) concepts into education. *Suzhi* reforms seek to dismantle pedagogical reliance on rote memorization, promote creativity through student engagement, and improve the individual "quality" of students through holistic learning and development (Murphy & Johnson, 2009). As with other educational reforms since 1949, the *suzhi* movement is linked to issues of national development; in order for China to compete globally, particularly as it transitions from industry to the knowledge economy, examination-based education must be reformed.

The discourse surrounding *suzhi* reforms is grounded in a discourse of deficiency. Chinese education currently lacks what is needed to produce an innovative and skilled workforce and *suzhi* reforms, including its "repackaging" as comprehensive quality education (MOE "Deepening", 2013) are geared to address these issues. "Education should attach importance to students' creativity, practical ability, and entrepreneurship.... training students' ability in collecting and processing new information, ability in acquiring new knowledge... and ability in unity, collaboration, and social life" (Zhu, 2016, p. 245). Thus, besides educational reform, *suzhi* addresses social issues of character

⁴⁶ Please refer to section 1:4 of Chapter 1 for a chronological and in-depth account of *suzhi* reforms.

and morality, similar to quality-raising techniques of the Qing dynasty (Thøgersen, 2001). In current times, it is the Only Child generation that is lacking in character and morality, hence the call for unity and collaboration in social life (Murphy & Johnson, 2009).

4.16 Conclusion: Repeated Patterns and Themes

The discourse in suzhi and current reforms reflect similar themes addressed repeatedly throughout the history of modern education in China. Firstly, education, especially one based on scientific and technical knowledge, is integral for China's national development and status as a modern nation. This was true in calls to end traditional education and imperial exams at end of the Qing dynasty, unsuccessful reforms during the Republican Era by progressives, the adoption of the Soviet Model under Mao, and the cultivation of human capital since Deng's Four Modernizations. In the Qing and Republican periods, however, reforms for a more modern system of education were countered by government efforts to restore Confucian doctrine. Since Mao, however, science has been co-opted by the government in the service of national development. Current calls for innovation and creativity are based on this "reification" of science; to an extent, science has become an ideology of its own in Chinese education. Works by scholars in Chinese history reveal the way that science has been used to promote political reform (the May 4th Movement), as well as the way that science history has been "rewritten" to promote ideology and class struggle (Schmalzer, 2009).

In line with this theme is the idea of "borrowing" from other (more developed) countries through the "Chinese essence/Western functions" argument. As Tan and Chua argue in their study on policy transfer and cultural differences between Chinese and

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western ideas of knowledge, Chinese educators lament the ceaseless borrowing of western terms and pedagogy promoted through *suzhi* education (2015). Although a great deal of academic study looks at the incorporation of western educational trends and values⁴⁷, there is little discussion of "Chinese essence", which, as history reveals, has more to do with state control and authority than cultural differences towards knowledge (teacher-centered). As seen during the Republican era, the state repeatedly tried to influence educational reform and maintain control of the curriculum, even though it ceded the administration of schools to local governments. In current times of decentralization, there is tension between local initiatives (particularly through funding) and central control over implementation of *suzhi*, with local educational managers unable to practice "local flexibility within a system that has a relatively centralized approach to curriculum, examinations and teacher monitoring" (Murphy & Johnson, 2009, p. 449).

A historical analysis reveals three factors that maintain "Chinese Essence;" one, the centralized control of curriculum, two, the authority of the state to decide what constitutes "knowledge", and three, the state control of the NCEE system. State control of examinations is one of the paramount facts about the NCEE. Thus, although reform policy in China may reflect an educational system more in line with western educational systems (to meet the global knowledge economy), it cannot be divorced from state control implicit in "Chinese essence." As stated by Murphy & Johnson, "Alongside shifts in approaches to development, ideas about what kinds of knowledge, skills and values students need in order to live moral, productive and good quality lives have also changed.

⁴⁷ For example, Shanghai's 2010 to 2020 education plan refers to trends in US education such as creativity, flexibility, and life-long learning (Tan & Chua, 2015).

For this reason, the curriculum in China is deemed to be too important to be out of Partystate control" (2009, p. 251).

The history of the testing and the NCEE in Chinese education reveals an unbroken relationship between the state and testing, as well as state control of curriculum, and strengthens Thøgersen's claim of the state as the central figure, mediator, and enforcer in all educational reforms in China (2002). As demonstrated in the Republic and National eras, the lack of a unified curriculum was accompanied by a lack of testing, bringing into question the legitimacy of schools to provide their own form of assessment. Another important era to consider is the years of the Cultural Revolution, which effectively ended the examination system and the legitimacy of academic merit from 1966 to 1978. It did not, however, end the idea of "education" as a means of social mobility; rather, "education" was redefined to include political activity and the memorization of Mao thought, which, under directives from the CCP, became the "new" curriculum. As pointed out in Unger's work on Cantonese schools from 1960 to 1980, this developed into an intense competition to display loyalty to the Revolution that rivaled the academic competition of previous eras, with particularly violent outcomes (1982). During this time, class background became the selection principle for higher education and secondary school admission, replacing test scores. Thus, while the "face" of education changed, the structure of social mobility did not. Ironically, the Cultural Revolution illustrated once again the fact that social mobility has never stayed permanently divorced from educational elitism.

With the ending of the Cultural Revolution and the re-instatement of the NCEE, education reform has been dominated by decentralization and *suzhi* reform. Decentralization has created market competition among schools for funding, as local funding at the secondary level is based on NCEE scores. During this time, the reemergence of key schools at the secondary level that garner concentrated national and local funding has contributed to a growing elitism in higher education, as well as greater disparity between rural and urban areas (Liu et al, 2012). Nonetheless, the state remains in control of curriculum, as curriculum is first set by the Ministry and then sent to provincial and county level education commissions, where "local content" is added (Tan & Chua, 2015).

In addition, the state maintains control of testing through the use of quotas based on *hukou* residence, where residents from rural areas must score higher on the NCEE, compared to urban residents. Much of this is due to the allocation system, where local residents are guaranteed a certain percentage of placements; since the majority of urban universities are in urban areas, there are less places for residents from other provinces. Quotas essentially controls higher education opportunity, regardless of the merit-based system of the NCEE. Combined with unequal finding at the tertiary level based again on a system of localized funding, with national funding weighted toward urban universities (the 985 and 211 projects), inequality in higher education opportunity is set to rise. The latest reforms toward "comprehensive evaluations" as a way to further *suzhi* education still rely on state control of curriculum and testing, particularly in light of a "dual track" focus in vocational education, which links reform to the separation of an "academic" track from a "professional" one (refer to section 1.5.1.1 and section 1.5.2 in Chapter 1).

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Thus, up to modern times, state control of curriculum, testing (in regard to control of higher education opportunity), and reforms, remains unbroken.

CHAPTER 5

REGULATIONS, NORMS OF BEHAVIOR AND BELIEFS ABOUT THE NCEE

5.1 Introduction

In this chapter, I present data related to my first research question:

1. What institutional elements compose the regulatory, normative, and cultural-cognitive pillars of the NCEE?

Specifically:

a) What are examples of law, authority, and/or coercion (regulatory) upholding the NCEE?

b) What moral and/or social obligation (normative) do stakeholders have towards the NCEE?

c) What are examples of cultural support and/or shared understanding towards the NCEE?

The findings in this section are divided into five sections by themes and not the categories of regulatory, normative, and cultural-cognitive specified by my question; these institutional elements are referred to, yet the final analysis of findings according to the three pillars of the NCEE is addressed in Chapter 7. For example, sections present important themes and the rules, norms and values of behavior, and beliefs that constitute them. The reason behind this presentation is explained in section 3.6 of Chapter 3 on analysis and coding of data, which relied heavily on categorical analysis (Rossman & Rallis, 2017). This section illustrates the way that particular categories (findings) are interwoven and the dialectical manner in which they support one another. Presentation of findings in this manner are crucial for understanding the relationship between the three pillars, which is later addressed in Chapter 7.

5.1.2 The Authority of the Score

In stakeholder data, the issue of scores figured predominantly. Used as assessment indicators for student achievement, teaching quality, and school quality, scores provide regulation of the process of education and ensure that each individual, each school, district, and province is placed in a system of national ranking. In addition, NCEE scores determine a student's higher education opportunity based on the Admissions Score Cutoff Line (ACLS) determined by provincial authorities. In China, universities are divided into 1st, 2nd, and 3rd tier⁴⁸ universities (-本, =本, =本), and each tier has a minimum "cut-off" score that a student's NCEE score must reach. This cut-off score is determined yearly, through a complex process of negotiation and computation that includes the number of examinees, university admission numbers, quotas by subject, and provincial (municipal) quotas. Once a cut-off score is decided at the provincial level, it is sent to the national Ministry for approval. Ultimately, it is the Ministry that decides the number of entrants into universities:

Universities do not have the right to decide the quality of freshmen.... In China, the universities are told which students to get – the Party office is higher than the administration [at universities]. Universities only have the NCEE score. It determines the order, the order of the line that is waiting. The universities have no way to change or choose. Everything is from the top. (Principal M)

Thus, scores determine not only the number of entrants into higher education, but also the level of students who enter university. According to the principal, NCEE scores are the singular criteria by which students enter university. This, however, is not completely

⁴⁸ If a student does not reach the cut-off score for a 3rd tier university, then he/she may apply for entrance into a 大学专科, a junior or professional training college. These colleges, however, do not grant bachelor's degrees, as study is limited to 2 to 3 years.

correct, considering the rise in independent admissions, which account for roughly 5% of admissions (Liu et al, 2014). Nonetheless, her comment reflects the top-down nature of the NCEE system, as well as the reliance of universities on the NCEE score.

5.1.2.1 Control of Future Opportunity

Regular high schools in China must prepare students for the NCEE, and a high score on the NCEE ensures entrance into a top university, which in turn, provides access to employment. Both teachers and students commonly referred to the NCEE as "the key" to their future. Through this hierarchically ranked structure, the NCEE incorporates students (and their family) into a government-controlled system of opportunity. Even during the times of the Imperial Exam, scores were a way to sort and allocate officials into particular government positions; now scores are a way to "select talent" and sort citizenry into China's socio-economic and political order. Regardless, both the imperial and current education are founded on education as a means of social mobility. The widely-held belief in Chinese society and culture about the relationship between social mobility and education was explained by a 10th grade teacher; "Going to a better ranking [university] means you have had a better performance [in high school] and can get better job opportunities in the future. It's like a path."

During a discussion of future university choices among a focus group of 12th grade student in Class 1, the issue was expressed quite succinctly: "Where I go depends on the score... A professor from Peking University told us they don't believe what medal you have [distinction for a subject], they just believe the test and the result of the test." Reliance on scores to determine future opportunity was reiterated by another student, "I want to study biology or chemistry... (maybe) bio-chemistry. Where depends on the

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score... maybe BeiHang university (Beijing University of Aeronautics and Astronautics), but it depends on the score." This student's remark drew gasps from her classmates – by revealing her preference for a university, she had also announced what score she intended to get. I then asked if a score of 20 points made a difference, and the students burst out laughing. "One point is a big difference!", they said, as if my question was a bit ridiculous.

Such a focus on scores, however, is not ubiquitous; much depends on the aspirations of parents. As explained by a language teacher who had taught 12th grade the previous year:

My friend teaches in a very low-scoring school. Some of the parents just sell vegetables and they don't need their children to go to university. They think, "okay a high school graduation is enough and then you can help me do my job." But more and more people, even if they are selling vegetables or working as cleaners, they think, "if my child can get into university, that can change my family and move my family's to a higher social level"... they use all the money on their children and they place great hope on their children.

According to this teacher, who is in his mid-thirties, the need to secure higher education opportunities through the NCEE has rapidly increased over the past few years. Jobs such as vegetable-selling and cleaning are performed by migrants with a rural *hukou*, and a high score on the NCEE (though doubtful in a "very low-scoring school") provides an opportunity for urban residency.

5.1.2.2 Standardized Evaluation

Besides a standardization of future opportunity through higher education, examination scores are standardized assessment of a school from the district up to the national level. District examinations start in junior high school at the end of each semester; during the 12th grade, district exams happen twice in the 1st semester, and are taken as a "prediction" of both a student and a school's performance in the upcoming NCEE. In addition, they are used by the province to set initial quotas for universities. Thus, exams translate both teaching and student learning into an education system that is hierarchically centralized and coordinated. According to the section chief in charge of teaching quality and management at the educational commission bureau, "[Exams] give us a standard evaluation for education that's about the quality of our education," with "quality" determined by the role of education "to help the university and the country to select the right talents."

Thus, scores also provide a form of supervision and evaluation of schools by the district commission. They allow for district ranking within a province or municipality, and districts with higher rankings have access to more resources and funding. According to the director of teachers at GZ:

If the school has an excellent NCEE ranking, then the government will give them a bonus. That's not very big, but it may have some influence. And the other thing is that the school gets ranked as a first-class or a second-class school, according to their education quality; the government gives different funding according to these ranks.

Besides funding, high ranking enables "a good reputation", which means "we will get more excellent students." The impact of NCEE scores affect issues beyond GZ's ranking, as explained by the vice-principal of the school:

There's a lot of things that will be affected if we can't achieve high scores in the test. It's the main responsibility of the school, and it affects the family, the nation, and the student. It's the foundation of their happiness. In the national perspective, it cultivates the talents of individuals and how they can be useful. So the NCEE score is like a physical achievement of our school in all of these things.

In these terms, the achievement of high scores links the student, their family, and the school together in relationship. The school enables the student to achieve a high score, the student's achievement enables both family achievement and school achievement. All these achievements collectively support service to the nation and national growth.

5.1.2.2.1 GZ's Ranking

Numerous websites attest to the high scores of GZ students; these are compiled from parents' reports of scores, the school websites, etc. According to one website, the highest reported score in 2018 for Arts was 639, while 629 for science. Meanwhile, another website claims that over 148 students in the science stream scored over 600 points. Within the district, GZ is known for its reputation as "double champion", meaning the highest scores in both science and Fine Arts within the district.

Teachers and administrators at GZ (as well as the school's website) claim a 100% admission rate for their students in 1st tier universities⁴⁹. It's important to note, however, that although GZ is first in their district, they are not in the top 50 high schools in Beijing⁵⁰. Graduates from top key high schools are known for getting students into the prestigious 985 or 211 universities (see section 4.14, Ch. 4). Unlike the admission rate for tier 1 universities, data for admission into 985 or 211 universities varied greatly; some teachers claimed that admission rates are between 10% to 20%, while administrators claimed, "a lot, over 50%." Nonetheless, getting into a 985 or 211 university is the goal for many students. An 12th grade teacher had the following to say:

⁴⁹ As I was not allowed access to official records, this claim could not be verified. ⁵⁰ "北京高中 2017 年高考喜报汇总" (Beijing NCEE news), 2017/06/25, http://www.zgkao.com/zk/201706/23209.html

There's pressure with the NCEE, in my school. The students have ambition to achieve; some of them want to go to the top universities such as Beijing University, Qinghua, and almost everyone wants to go to top universities, like what we call the 211... I heard my graduate students say that Chinese companies only want students who graduate from 985 or 211 universities, but are all the students from those universities better than others who don't have that kind of degree? That's the question.

In a system of ranking that allocates future opportunity, reputation, and resources to students, extending from primary school up through university education, the answer to the teacher's rhetorical question seems to be, quite simply, yes. The effect of this, as discussed by 11th grade teachers in a focus group, is "like a traffic jam. They all want to go to the same place." This "same place" refers to the top universities, suggesting that beyond the functional aspects of ranking, there are normative and cognitive factors to ranking as well.

From a functional perspective, scores and resultant ranking also allow for coordination between schools at the education commission level (district and provincial) up to the national Ministry of Education. The funding a school receives from NCEE performance and subsequent ranking help to create a "feedback" loop that ensures schools adhere to a standard of "quality" that is centrally controlled. Within the school, the vice principal is tasked with the responsibility of ensuring "quality" through the NCEE: "The NCEE has been the most important standard for my work [the core of my responsibilities]. In other schools and their work, it is also the same, the most important issue is the NCEE. If you don't take the NCEE seriously, other respective work cannot be evaluated or assessed."

Thus, scores function as a way to codify future opportunity and quality, both student and school, through placement in a system of ranking that extends from the

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individual, the school, the district, the province, up to the national level. Within GZ, as explained by the vice-principal, scores are a way to evaluate and assess the effectiveness of teaching and learning. However, for something so highly standardized and bureaucratized in the school, the state and society, the importance placed on scores is highly complex, creating paradoxes in both belief and action.

5.1.3 Learning and Scores

Exams and scores dominate education in China. According to a geography teacher, the importance of the NCEE overshadows all other concerns; "in 12th grade, you are studying for the exam. It's a different purpose. For 12th grade you have to improve your exam (testing) skills, the ability to solve the problems in the exam, and try to achieve a good score." To a foreign language teacher who had worked at GZ for two years, such a focus on exams happens earlier than 12th grade:

Exams seem like the main reason why students come to school, to do the NCEE and to do it well. From what I've seen, teachers are good and they're trying to make things interesting, but the main focus is how to prepare students for exams, because I think there's a lot of pressure put on students from the moment they start kindergarten until they actually graduate from high school to do well on their exams, to be the best, and so on.

This teacher, who was hired to improve English teaching at the school through more student-centered activities, referred to difficulties in her job because of the singular focus on exam results.⁵¹ The negative impact of such emphasis on testing was also echoed by a language teacher, now teaching 10th grade:

⁵¹ In my own experience as a teacher trainer in China (see section 3:6, Chapter 3, on positionality), exams were the primary challenge to changing teacher-led pedagogical practices and reliance on rote memorization. However, there are cultural and traditional norms beside this explanation, too.

Now, I think, it definitely has its limitations, like students don't have other aims. They don't know what they want to be in the future. They don't have any other goals in life; they just study and study, and focus on the score. That's what I've learned after being a teacher... Because the students, they just care so much about the score. Not the learning itself. It doesn't matter if they really understand it or not, they just want a higher score. So, I think that's a problem that this examination brings.

In both of these statements, exams and their resultant scores dominate not only student learning, but teaching as well, as much teaching is also directed towards preparing for exams. The result of this, according to the language teacher, is that getting a high score defines student goals as well.

5.1.4 The Complexity of Competition

According to 12^{th} grade students, such a focus on learning for scores leads to competition between students. On one hand, this competition is viewed positively – scores show where a student has strength or is lacking, with the result that students are able to assist each other in improving:

I feel that we do have competition between students in my class, but this kind of competition is very nice because we want to help each other. We would like to help each other improve; we are classmates, so we are competing, but we are helping each other as well. So, I think this is a very good way of competition. (Class 6 student)

The issue of helping one another was reiterated by the principal of the school, who explained competition in the following terms, "The average Chinese all understand this [competition] is [with] your friends - just like brothers and sisters - this is important. For example, students whose English is not so good, they study together in class." Helping each other in classes was referred to as a "traditional custom" by the principal. However, this "understanding" of helping one another and an equal (characterized by friendship) relationship between students was contradicted by a 12th grade student, who claimed the opposite:

But there are, in fact, other students, who think that other classmates are competitors. I'm not sure if they are selfish, but there are some students who are not willing to help classmates, and they are not willing to even share their notebooks with others. Because they think that it's like other students will be better than them. (Class 6 student)

Despite their contradictory views, all of these statements point to recognition of a normative obligation that students have towards other students; the obligation is not that one shouldn't outperform another (for otherwise positive competition wouldn't exist), but that each student is obliged to help or assist others who do not score so well. As a 10th grade teacher explained:

They compete with each other, but not in a bad way. It's like they try to get a higher score than someone else – those kinds of things. I think it's in a healthy way. Only one or two students [in my class] will not share their answers. And they will behave really badly in the class to make others think that they are not interested in their studies, that they don't work hard. But actually, when they go home, they work really hard, or they are pushed by their parents and they have to. So, in a way, they pretend they don't care, but they really do.... It's a kind of rebellious behavior.

From this teacher's explanation, students are under an obligation to share answers, which is also in the complaint by a Class 6 student that some students "hide their notebook." Pretending to be a "bad" student while secretly studying at home is attributed to "rebellious" and "selfish" behavior, signaling the breaking of a group norm. Thus, what is negative is not the competition for scores among students, but breaking an obligation among students to help one another. In addition, students must compete openly (publicly), which to a 12th grade teacher, is exacerbated with the rise of shadow education:

They do not help each other. Everyone secretly studies. For my class, it's secret... They don't want people to know that they're taking extra lessons in 12th grade. They just want others to know that they are a top student. They have a sort of face where it seems they don't care, but then inside, they are working very hard.

As studies on shadow education have pointed out, test coaching and extra hours tutoring ("extra lessons") are common methods to improve test scores and gain a competitive advantage within a high stakes system (Bray, 2011). References to "face" and "inside" imply a norm to be upfront about competing in the NCEE.

5.1.5 The Issue of Character

The growing importance of scores in high school creates a behavior of discipline among students. A 10th grade teacher who had previously taught in GZ's top middle school⁵² explained the difference between junior high students and high school students, associating the scores on exams with a self-discipline towards homework and assignments.

In junior high there is a lot of conflict between students and the teacher. It's really hard to manage them in the classroom; there are a lot of behavior problems. And they don't do their homework and their parents explain, "my kid needs to go to bed early, so he doesn't need to do homework." In high school, parents don't complain about homework anymore because I think students know they need to do homework, as quickly as possible. They know it's necessary.

Such self-discipline, however, was not ubiquitously viewed as positive; as a senior 12th

⁵² A number of teachers that I interviewed had been "promoted" from GZ's three junior high schools to teach at GZ high.

grade teacher explained, the singular focus on scores by universities negatively affects the character development of her students:

Frankly speaking, I can say that some students are not honest, they are quite lazy, but the colleges (and universities) just accept students based on their scores, not their characteristics or their personalities. Their (students') scores may be really high but they're not a good person, they are not a good team worker. But we have such a large population, it's just an approximation [the scores]. You could be a good guy with minor flaws, it's okay.

Interestingly, the fact of so many students in China ("large population") allowed for "minor flaws" within the system. In other words, the selection function of scores on the NCEE allowed only certain types of skills and discipline to be acknowledged, as expressed by a 12th grade student: "well I think that the universities only focus on the score, and I think that's where they are mistaken. They just narrowly look at the score. I think they should really evaluate how a person is, not just look at a score." This was questioned by another 12th grade student, who spoke of the difficulties in determining "how a person is" compared to the objective nature of scores: "I think it is quite hard to judge what kind of character you are, so the only way to remedy this is to have the only standard be the score." Although scores are objective, a high score does imply certain positive characteristics, as seen in a statement by another student, "I think the score can reflect your character. If you want to study, you want to be better, [and] you will go forward and do better."

5.1.5.1 A Lack of Comprehensive Abilities

The overt focus on marks led some parents to complain about GZ's pedagogical approach, which they claimed was too "score-focused." According to the father of one 10th grade student: "Currently, they (GZ) employ the methods of traditional teaching,

which focuses more on the marks of students' exams. They are not improving their comprehensive abilities." In line with reforms towards comprehensive evaluation, the parent was referring to "non-tested" areas, such as creativity and art. However, when asked about the importance of scores for the NCEE, the parent responded "Of course, scores are really important for students when facing the NCEE. It is because students are recruited based on their scores - it's the main standard. But some other strengths should be considered."

Here we see a contradiction in what parents expect from the school; on one hand, they want high test scores, which is the "traditional teaching method", while on the other, they criticize the school for not exploring whole-child development and newer methods. This juxtaposing of comprehensive education against the NCEE system was also expressed by GZ's music teacher (the only music teacher for the whole school): "I agree with the development of comprehensive abilities. I read an article by Howard Gardner that talked about multiple intelligences, other kinds of knowledge besides math and science. It helps a person to grow better.... It's difficult to have top-down implementation of this, but as a teacher, I can implement this in my class." According to this teacher, the incorporation of comprehensive abilities cannot be achieved through government-led action but depends on the action of the teacher at the classroom level. Since music is not tested in the NCEE, music classes are only given to 10th and 11th grade students, and only every two weeks. Thus, her chance to implement the development of comprehensive abilities is quite limited.

The limits of an education based on scores was expressed by most teachers and parents, from pressure put upon students to creating a singular focus on achieving a high

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score. One teacher, who had taught for several years at GZ, spoke about the "moral consequences" of "traditional teaching", even though she adhered to it in her classes:

The NCEE only focuses on the final marks of students. It does not have any direction or relationship with a moral education. A good moral education should not use the NCEE as its purpose. A moral education of a school should have a higher concept. Teachers should have a conscience. And that means as teachers, we should nurture our students.

This teacher, who was the head teacher for her grade, criticized the competitive pressure engendered by the NCEE and felt it her duty as a teacher to "nurture" and take care of students, a form of care she believed not allowed by an exam-based system. Interestingly, she attributes blame to a lack of conscience in teachers, revealing her internal contradiction between what she felt she should do as an educator versus what she had to do.

5.1.6 The 12th Grade Parent-Teacher Meeting

Parent-teacher meetings are a crucial element in maintaining an emphasis on score-based performance, especially in the 12th grade. Held after each mid-term and endof-semester test, the results of recent exams and preparing for mock tests or the NCEE dominate the majority of the meeting's content. The first half, presented by the 12th grade head teacher, is an analysis of recent test scores from a variety of perspectives; parents and students (students must attend as well, and sit in a separate section close to the stage, with their parents behind them) watch and listen to a presentation about scores according to subject stream and subject (see Appendix B1). Top scores for each subject are given, along with student names, and other areas of achievement include students who have improved the most by subject, by entire stream, by the entire test (all 6 subjects), and over the course of exams from 11th grade. The presentation also includes skills that students must improve on to increase exam scores (Appendix B2), as well as an analysis of an "ideal" score versus the level that students are currently achieving. As stated by a 12th grade student, "they use those [scores] to judge if the student has done a good job, or if she or he has fallen behind."

The work involved in analyzing test scores for the 12th grade is one of the most significant and important parts of the vice-principal's work. Unlike other grades, there are four main tests - the mid-term, end of the semester, and the 1st and 2nd mock exam. According to the vice-principal, "the students have to be evaluated and compared with the other students. So, I cannot make any mistakes." Evaluation and comparison include a complex analysis of student comparison, comparison of teaching points, or curriculum goals determined by the district for review, as well as key points for student improvement, all through the medium of exam scores. As explained by the vice-principal, "the monitoring of exam results" and "mistakes of the students" can "help me discover learning issues, and the ways to handle these issues." Since the vice-principal "cannot make any mistakes", the impact of his work involving monitoring and evaluation of scores is huge, which puts a lot of pressure on him. His work affects future teaching and learning in 12th grade, and ultimately, the future of students and families.

According to the principal, parent-teacher meetings help to assure parents of their child's performance; in her view, parents, rather than students, are more worried and concerned about scores and exam results:

The parent meeting is very important. I go over some problems, but also say identify what the main problem is. Inside, the parents are more afraid than the students. The parents come here to listen to me. They are just like my friends. I

name the good things and for bad things, I only analyze and tell parents to pay attention... Bad things might be done by an individual, but I never name names.

As stated above, "good things" refers to high scores or improvement in scores. In particular, one student is named for showing the most improvement; during the 2nd half of the meeting, the principal referred to the achievement, behavior, and attitude of X student as a benchmark of "good" behavior that should be emulated:

I hope all the students in our class look at X [a student]; in the past he was ranked really low, in the lowest group of five students. X has tried hard, and the accumulated hard work he has done can be seen in his exam results. Now he's in the middle. If you are like this kind of student, you have more room to improve your score. The key thing is attitude... [the reason] why his scores are progressing so stably and so well is because he knows the importance of the NCEE, and he wants to strive toward a higher ranking.

This praise was juxtaposed with the issue of another "problem" student. Although not

directly named⁵³, the principal provided a detailed explanation of the "problem" students'

"bad" behavior:

There is one student; I don't want to say his name today, but I would like to have a meeting with this students' parents. This student is now playing games, after class he leaves immediately, he never comes to review classes, and you can never find him. But why do his parents not come up to discuss? With this situation, what reaction should the parents have? The parents haven't shown any reaction. We cannot throw any student away, even with this particular student... Every day he goes to play games. How can (his) parents not see these problems?

As explained to me by a teacher at the meeting, it is common for parents to be

"criticized" during parent-teacher meetings, not only at GZ, but across schools in China.

⁵³ Culturally, it is very rude to directly criticize a person as this causes a loss of face. However, the level of bluntness in "indirect" criticism often surprises foreigners, as it is common to criticize a person by telling their friends or family, in hopes they will relay one's message.

Nonetheless, as the head teacher for 10th grade explained, parents are rarely contacted by the school, even if a student's performance is low. Rather, the school feels it is ultimately responsible for the student and will try to solve issues by itself.

5.1.7 A Reflection of Teaching

As revealed in the parent-teacher meeting, scores are a way to assess the performance of students and their weaknesses or improvements; in particular, exams during the 12th grade garner the most importance as future indicators of NCEE success. Through an analysis of exam results, scores indirectly assess a teacher's competence in meeting curriculum (review) goals. However, teachers debated the ability of scores to reflect their quality of teaching. During a focus group of 12th grade teachers, a language teacher commented, "my main concern is that my teaching cannot be instantly reflected in the test scores." In the 12th grade, teaching and curriculum is solely review of material for the NCEE. Thus, evaluation through the score does not take into consideration previous years of student effort or teaching. This was contradicted by a history teacher (much to the eye-rolling of the language teacher), who commented, "I think that the NCEE score is the most important reflection of teaching," referring to her ability to prepare students. This difference in opinion most likely lies in the tested areas within each subject; the language portion of the NCEE is probably the least "scripted" (questions known beforehand) of all subjects in the test. Another teacher, who had taught Class One (the highest-ranking class) during grade 12, remarked on the pressure of his teaching being reflected through student NCEE scores; "Even I didn't sleep well because I didn't know how my students could do on the test."

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5.1.7.1 Blame from Parents

The idea of teacher assessment led to quite a few conversations with teachers regarding the relationship between their teaching and student scores. In particular, parents were often quick to blame teachers (rather than students) if their child received a bad score. During a focus group of 11th grade teachers, the question of "who is to blame" when a student score is low, surfaced:

... We do have parents, when the student gets a really bad result, they blame the teachers...Maybe they complain to the government, or to the committee, something like that. When you go to the toilet, teachers are talking about it. But teachers here, we never really experienced these kinds of problems, right? Most parents respect us, I think.

According to this focus group, as well as interviews conducted, teachers are never confronted or blamed by the school for low scores. According to an 11th grade teacher, this was due to the high quality of teachers at GZ: "Teachers in our school, whether young or old, experienced or not, we do our best to help the students. I think our school's teachers are very diligent and willing to help students. We really care about our students, and our school doesn't punish us in any way if our students don't do well." This makes GZ quite unique among other Chinese high schools, which adhere to bonus pay or a pay by performance standard.⁵⁴ Nonetheless, teachers face judgement from parents, who do not hold a similar view:

You don't want to have them [parents] disappointed. Because when the students get a low score, they are already disappointed, and then they are also disappointed [in] me... They won't blame the teacher, but they will say something that makes you feel badly. They say things like, "I will do everything to help the teacher, help

⁵⁴ However, teachers are selected and promoted according to a class ranking system, or by their duties such as homeroom or head teacher. These positions engender more pay and higher ranking. How this selection occurs was unanimously expressed as "according to the wish of Principal M."

my kid to get a higher score, thank you teacher very much." Those kinds of things. It's not from their heart, I think they're not being genuine.

To this 10th grade teacher, the lack of sincerity in parents' statement was a sort of *indirect* blame on her teaching, which she internalized as a "feeling badly" because she had not done a good job; for this teacher, a fear of disappointing parents (and students) results in a form of guilt. This "fear of disappointment," though through a broader social/cultural context, was also expressed by another 10th grade teacher who taught 12th grade the previous year:

And another thing, students they believe in you. They like you. And they believe that you can lead them to reach a good score. And you have to do this. Because you know that some people [students] are not rich, and they need this high score to make their life happy. And in the back of them is the family. You know, Chinese families put all their money on the child. So, if the child fails, the family fails. That's why I don't like this job, at least I don't like being a teacher in the Chinese education system. It's a very big pressure on you... I don't know how to face it; oh my God.

The fact that "Chinese families put all their money on the child" again illustrates the commonly held societal and cultural belief of social mobility through education – a student's personal educational achievement is equated with his/her family achievement, legitimating the belief of social mobility through education even more. Similar with the English teacher, there was a fear of disappointing students who "believed in him" and "liked him", placing a normative constraint of pressure on him. Interestingly, this teacher did not feel the same pressure from students whose families were wealthy, particularly those whose families had their own company.

[There are] not a lot, but some of them [that don't care about the NCEE]. I want to be friends with these students because they don't have pressure and I don't

have pressure... they don't have the pressure of not enough time [to prepare] in school. And the parents think okay, just keep my child safe and make her happy. Don't worry so much about the score. Some of them are [like] this, but just a few.

To parents who are well off, the need for social mobility through their child's education is, of course, much less. This statement implies a correlation between student achievement, parental expectations, and a teacher's job pressure. This relationship was also expressed by a 12th grade teacher:

My understanding about pressure, it comes from three aspects. The first is from society, which is mainly from the parents. In this school, the parents generally have higher demands from the school, higher expectations from the school, so that's how the pressure comes to teachers.

According to these statements, high scores in student performance on exams is ultimately the responsibility of teachers. Even though there are no financial retributions against teachers for low exam scores, teachers have internalized this responsibility, as indicated by their feelings of guilt, fear over "not being liked", and their recognition of high parental demands.

5.1.7.2 Losing the Rank of Number One

During my interviews regarding the school's ranking in the district, a few teachers remarked about a time GZ did not perform so well on a mock exam⁵⁵, held a few weeks into the second semester. A teacher, who was teaching Class 1 students in English at the time, related what happened:

⁵⁵ In addition to giving students test-taking practice for the NCEE in "real" conditions, a mock exam also establishes a baseline prediction of university cut off scores by the municipal-level commission.

Class one didn't do well, so our school lost the number one spot. Actually, for my class, for X district, the top will be us – there will be at least four or five of our students in the top ten ranking. At that time, we didn't know what happened, only one student was in the top ten [ranking of scores in the district], and she was number eight. And the principal was angry, well confused, and immediately had a meeting with the students and parents. We changed some policy, because at that time a lot of students were taking extra classes [shadow education]. The administration decided to blame the low scores on the issue of extra classes. They felt the students didn't want to focus on what was being taught in the school. The principal said that they should focus on what we have taught them.

The issue addressed was shadow education, which was said to be distracting students from classroom assignments. Although high schools are no longer allowed to provide extra hours outside of class time for tutoring, students and parents still seek private tutors to teach efficient strategies for answering questions in the NCEE (Yu & Suen, 2005, p. 28).

Instead of extra tutoring, a traditional form of teacher-led instruction was emphasized, and observations by the vice-principal began:

The vice principal also visited our classes, to share his experiences, and to tell the teachers what to do... He told the students to just focus on the foundations and not do the really difficult ones (problems). You need to listen to us even in (against) your opinion. We are just teachers, you can have a much brighter future compared to us. But we want you to stand on our shoulders to have a brighter future.

According to many accounts, teachers were not penalized for this lack of top achievement with X district. The issue of teachers being blamed was a sensitive subject during interviews and conversations, though both teachers and administration remarked that GZ does not follow such a policy. Nonetheless, the pressure as a teacher to have students perform well, as stated by the teacher who could not sleep during the NCEE test for fear of not knowing how her students were doing, points again to an internalization of "selfblame." This was also expressed by a teacher, regarding his first year of teaching grade 12 language:

The principal does not blame us if we don't make first place. But I will think that I have done badly, like a kind of self-blame. Because I may be the first one in the history of the school to fail, which would be shameful for me. So I had this [kind of] pressure. In my third year when I taught 12th grade it was a very big honor for me. I had to prove that her [the principal's] decision was right, [that] I am okay.

Because the grade a teacher is assigned to, as well as the class number, are both chosen by the principal (and solely by her decision), there is a normative pressure to perform well, particularly as she is their superior.

Interestingly, the issue seemed to have solved itself with the 2nd mock exam, where GZ again regained their number one slot in the district. According to the administration at GZ, 12th grade students no longer take part in shadow education; however, according to parents and students, every student participates in shadow education, despite GZ's ban. Through a sort of "indirect blame" on shadow education, the administration was able to save "face" for teachers, students, and parents. The administration offered a "solution" emphasizing teacher-led instruction and classroom observation. According to accounts, neither classroom instruction not content changed; nonetheless, as one teacher reported, "suddenly, the scores changed", and GZ regained their top position with the NCEE.

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5.1.8 The Regulation of Uncertainty: Predicting through Exams

5.1.8.1 Mid-term and Semester Exams

In 12th grade, the mid-term and end of semester exams help to establish areas of improvement for students and teachers (through identifying weak and strong areas); as the exams are graded against the entire district, rather than the school, they are also the first "prediction" for both student scores and school ranking for the NCEE. In addition, these exams help to see if revision goals have been reached, and the degree to which they have been reached. The mid-term exam occurs over two days and is a total of 8 hours for 6 subjects. In focus groups of 12th grade students, students explained the pressure on them for these exams is not great, and they use them strategically to figure out areas of improvement. A Class 6 student reported, "I feel the scores I get on those tests (exams) are not really important in my last year of high school. I take every test as a chance to know which kinds of knowledge I am still not familiar with." Also, a number of students reported sleeping "better than other days" during the exam - "if we don't have the test, some of us would have to finish homework. And we have to stay up late to finish homework. On test days we don't have homework, so we can go to bed early. It's better than other days." Nonetheless, during my field work, two students scored the top ranking (1st place) for the subjects English and geography in the district mid-term, while a total of six students placed within the top ten student ranking.

In addition, the mid-term and end of semester exams are based directly on what has been reviewed at GZ through unit tests⁵⁶; thus, students have the opportunity after every unit to practice, review, and correct their mistakes: "we learn a unit, and we have a

⁵⁶ The content, lessons and timeline for units are decided by the district, not GZ.

test about this unit, either during the test time or the class time. After we take the test, the teacher will give some class time to talk about this test and help us correct [mistakes]." Thus, unit tests assist students with their performance on these two exams; as stated by one student, "the more we take the more confident we feel."

5.1.8.2 Mock Exams

Mock exams are exams that mimic the conditions of the NCEE (testing times, testing environment, etc.). As explained by an English teacher, "Everything, the types, the time, the level of difficulty will almost be the same, to make the students feel 'it is ok for me to take NCEE'." Mock exams allow for a "test run" of the NCEE. As explained by the vice-principal, by the time of the first mock exam:

In my experience, the scores that students get in the first mock test and the scores they get in the NCEE have a relationship. The first mock test can serve as a prediction for the NCEE so, if the students don't do well then they really get worried about the NCEE... in the past, the test was not only a diagnostic test, it was also a reference for students to decide their major at University. In the last three years, Beijing has changed [this] policy⁵⁷ and now students can choose their major after they get their NCEE scores⁵⁸.

Students, however, do not approach these exams with the same confidence or lack of pressure as other exams. Although these exams help them become "familiar with the procedure" of the NCEE, students describe mock exams as a way to "test their knowledge" as well as their ability "to control themselves:"

⁵⁷ In the past, students had to apply for universities and majors before their NCEE score was released, resulting in a kind of "gambling", as well as a sort of conservative selection. Several teachers and parents reported choosing universities or majors that were quite below their NCEE score, as a way of playing it safe.

⁵⁸ Students must still apply for universities and programs before "cut-off" scores are released by universities.

I think the purposes of mock exams is for students to make prepare emotionally for the uncertainty of the NCEE. The mock exams, their difficulty is lower, or others just say [I have heard] they are lower. I think that if you take two of these tests, you won't feel so nervous, but you still will be nervous, just not that nervous.

This statement was contradicted by another student, who spoke of stories he had heard from testimonies of university students: "So many students from Beijing University, they said [when] they didn't get a good score in the mock, they will feel more nervous [about the NCEE]." Another student related this anecdote about the mock exam:

I have heard a lot of stories from our school [graduates]. Now the people who told me, they are in Beijing University, and they said that in their year, some very, very good students failed; they didn't get a good score in the NCEE, even though they usually got high scores, like the first and second place in the mock exams. But in the last exam they fell to maybe the third, fourth or lower place. This wasn't because they didn't have good abilities, but it was due to their mood, their [personal] condition – they were nervous about the result.

Despite the many preparations of unit tests, mid-terms and semester exams, and mock exams geared towards both review of and practice for the NCEE, students still worry about being unprepared for the exam. This unpreparedness is both mental, in terms of not having enough knowledge, and also emotional.

5.1.9 Being Nervous

Being worried about the NCEE appears to hinge on the fact that the exam itself is not predictable and therefore, unknown. As stated by one student, "I think it is the unknown that makes you feel worried; when we all think about it, we more or less have big worries." Unlike the unit exams, mid-term and end of semester exams of the 1st semester, there is much outside of a student's control. In a focus group of Class One 12th grade students, the issue of preparations featured large: S1: I think the nervousness felt during the NCEE is caused by a lack of preparation, so if you have enough knowledge, or you are confident enough about what your ability is, I don't think you will feel so nervous in the examination.

S3: I think the NCEE is not predictable. It has many aspects [that affect you]. It not only tests your ability and your knowledge, but there are also other aspects, such as the environment, and your psychology.... For example, [there is] the room, the temperature, and the physical conditions when you take the examination, and your mood while taking it. These will all affect your thinking.

S4: If we get a question we don't know, we go crazy. And we will not get a good score. So, I think that it is unpredictable.

Because no one can know the *exact* content of the NCEE, there is no way to know if one's knowledge or ability is enough. As students told me, China is filled with "NCEE companies", companies that help to "predict" both the content of the NCEE, as well as cut-off scores for universities. These companies, though, are usually very expensive, and beyond the means of most students at GZ.

5.1.9.1 Pressure from Parents

For most students, the parental pressure to achieve was the chief reason they felt nervous towards the NCEE. As stated by a student in Class 6, "the only thing that makes me nervous is when I get back my exam, and my mom might blame me for my score." Parental pressure was due to a high level of expectation:

When it comes to the big test... I have a feeling that my parents and my teachers are expecting me to get in the top five or something. Which gives me some pressure. But actually, I don't think I have that kind of ability right now. So now, before the test, I have a sense of pressure and a sense of... like I can't do anything. Although I feel something good being treasured by my parents and teachers, this kind of mixture of feelings, I don't think it will benefit my exams. (Class 6)

Teachers also spoke of pressures from their parents during their experience with the NCEE. As an 11th grade language teacher recalled, "In my heart and my mind the pressure was huge. I was the only child. For my parents, the NCEE was a kind of hope, but for me, even hope was a kind of pressure."

5.1.9.2 The Importance of One's Mood

According to a 10th grade teacher, one of the main reasons that students don't do well in the NCEE is due to "their mental state. They may be very nervous and don't know how to deal with the questions." Besides the unpredictability of the NCEE, the high stakes nature of the test was also referred to by one student, "Sometimes when you think about it you will feel a little scared because you only have one chance." Nonetheless, some students expressed a belief that feelings and nervousness can be controlled; according to one student, the NCEE "is not that scary because I think how you control your mood is also an ability." When asked how she controls her mood, she explained:

I don't know how to control my mood, but whether you can control it means whether you have the ability to adapt [to the environment]. In my opinion, being nervous doesn't matter, students can adjust themselves. For example, certainly they will be nervous at first, but they see the first question and 'oh it is easy I can do it' and the second question 'oh it is easy', and then they can do it all. Then [they are] not nervous at all.

Other students, however, disagreed with the fact that one's ability to adapt to uncertainty had a relationship with nervousness, stating, "I'm not nervous. I don't have a sense of competing. You are only nervous when you're in the top five or number one. But when you're in the middle, you don't feel very nervous." Unlike the students in the focus group, this student was not ranked among the top students, illustrating that pressure to achieve also has an effect on one's mood.

5.1.10 The Importance of Xintai: Balancing One's Mood

Although students expressed the ability (or inability) to control their mood as something belonging to themselves, the responsibility of cultivating an ability to control or balance one's mood lies with teachers, and less so with parents. As explained in Chapter 3, controlling one's "mood" is expressed by the Chinese term *xintai*, which refers to one's mental and emotional state in meeting situations or challenges. A language teacher had the following to say:

Xintai is about how you are going to face results when they happen, [like] if it's a bad result. For good students, after a test, I will help them to evaluate the paper, like what is exactly wrong. I will be detailed, and not talk generally. And before the test is also important. If their *xintai* is very bad, maybe they are too worried, too concerned. And when it is on the big day, because they are too worried... (makes a gesture to her head). Everyone is worried, but some are [worried] too much, I think.

In conversations with stakeholders, the importance of emotions and mood figured in responses about the NCEE as much as the importance of subject knowledge and achieving high scores, stressing the importance of "balanced mood" (平衡心态, *pingheng xintai*, with *pingheng* meaning "balance"). However, the importance of *xintai* was not limited to the NCEE only. As expressed by a parent of a 10th grade student, "I think for the school to make sure students have a balanced mood is the top responsibility," while another parent expressed the necessity for his child to "learn how to face difficulties" at school. Thus, the importance of having a good or balanced *xintai* relates to every examination. A 10th grade mother gave the following explanation of her daughter's situation:

Right now, her study schedule is quite tight... Right now, my daughter has midterm and final examinations. During this time, I hope she does not have pressure and [I will] help her have a balanced *xintai* before the examination, as there are still many changes and examinations in the coming years. In our conversations at home, we will stress the exams but not pressure her.

Based on stakeholder data, the cultivation of a balanced *xintai* lies in a sound knowledge base, a positive attitude and optimistic mood, an ability to face challenging situations without *too much* worry, and a high degree of both mental and emotional control. As stated by the principal during a Parent-Teacher meeting, as the NCEE approaches, a balanced *xintai* becomes the most important factor for success:

The closer we get to the exam, although the scores are important, what is more important are aspects of emotional preparedness and state of mind, and we are comparing [looking at] students in this manner. Now that it's late, it's the attitude and mental state... Parents have to understand this important thing, that attitude and state of mind are key. Student Y's score has been decreasing while Student X's score is going up. Even though X's academic foundation isn't as good as Student Y's, [Student Y's] *xintai* is not as good. When the *xintai* is impacting a student correctly – this is the example of Student X.

However, *xintai* is not only about preparation, but also, as stated earlier by a language teacher, about one's reactions to negative news, a sort of challenge to be faced. As explained by the moral teacher, "They [students] need to evaluate themselves correctly and face the results of an examination with a balanced, positive *xintai*. That's also included in my responsibilities." The moral teacher routinely makes school announcements "to encourage the students and to help them have a balanced *xintai*," adding that "the principal arranged for some psychologists to help students with how to study and how to adjust their moods." Another teacher stressed the importance of dealing with results from the numerous exams students face during 12th grade; "During this period of time, of course sometimes they fail; they cannot always achieve a high level, so

if they fail they may have a negative image about themselves," stressing that when this occurs it was important for them "to ask for help academically and emotionally."

5.1.10.1 The Responsibility of Teachers

According to teachers in the 12th grade, helping students with their mental and emotional mood is one of their main duties, as it is a way to *guanli* (管理) students, a verb that means "to care for", but for teaching, one that has the connotations of a parental form of care and control. This is particular true for 班主任, or homeroom (HR) teachers, who have the added responsibility of emotional care for students (refer to Appendix 6, chapter 3). As explained by an English teacher who had been a 12th grade HR teacher the previous year:

You need to care about everybody's mental health. Every morning, that's what I do. Every morning all the teachers do the same. When I go to a classroom, I will look around and see if anybody is unhappy or is behaving differently today. If so, maybe I will talk to the student. I have a small notebook I carry to write about students' emotions, or when another subject teacher tells you somebody [my student] doesn't behave. Because it is the 12th grade, everything is exaggerated from when they are in the other grades. That's the truth. And also, the school asks us to be like this, to be more careful about everything.

During a focus group, 12th grade teachers referred to student care as part of their duty, regardless of whether or not they were homeroom teachers. The head teacher of 12th grade stated, "I must understand students' temperament and emotional development," while the geography teacher spoke of his responsibility to "talk or chat with them [students] to pacify their mood/spirit." According to the English teacher, "you don't need to focus on their [students'] study because they have a lot of self-control [self-discipline], you just need to focus on their mood, to avoid them breaking down sometimes." A 12th

grade student gave the following example of how she is emotionally helped by her teacher:

I like my language (Chinese) teacher, because she always smiles and she's so patient when I take my time to do some exercises, and she is always willing to explain anything I'm confused about. Sometimes I make a mistake, but she never blames me. She encourages me to do better in a very friendly way, so it is easy for me to accept her opinions. Unlike some other teachers, she always tells us that we should look on the bright side and that some exams are not so important, including the midterm, so we shouldn't be discouraged by the results. And she always tells us that everything is going to better.

Thus, an important responsibility or 12th grade teachers is providing emotional support for students. As indicated by this student, support is often helping students achieve a positive opinion ("look on the bright side"), and approach exams and their results without feeling overwhelmed ("not so important"). Teachers are fundamental for helping students achieve a balanced *xintai*.

5.1.10.2 The Influence of Pressure

The focus on students' mood is due to the high amount of pressure they have

facing the NCEE. According to the head teacher of 12th grade:

During the NCEE, every student has pressure. They also have high expectations. And their emotions will change or fluctuate during this long process [12th grade]. As teachers, we have the responsibility to help students as they experience these pressures, these emotional changes. We help them to solve their emotional problems and we teach or lead them in their growth. This helps them cope with problems like these in the future, and also helps them to be in a better state to complete this year's learning task.

Another teacher added, "the students are under the biggest pressure, and the teachers and the parents, their main duty is to calm them down, and help them pacify their emotions. The main responsibility of the teachers and the parents is to help alleviate their stress/pressure." The importance of this was related directly to learning and test preparation; "when they are too nervous about the NCEE, they cannot find the root of their learning problem. So I need to talk or communicate with them to change their emotional thinking. Then they can solve learning problems more appropriately, during the high-pressure atmosphere."

Although parents are also tasked with alleviating their child's stress, parental expectations, as seen in student statements, is one of the main reasons that students experience pressure. This pressure is both external and internal. According to an 11th grade teacher, "the biggest motive for students working hard is to honor their parents. Maybe as a child they want to please them, but as they grow older, they want their parents to be proud of them." In the eyes of a 10th grade teacher, however, parental expectations are rising, with the effect that students' *xintai* is becoming less and less resilient – "the reason their *xintai* is bad is because their parents push them too hard." In this statement, there is a correlation between rising expectations and a lowered ability to keep a balanced *xintai*.

5.1.10.3 Motivation

Motivation was mentioned by teachers in the 12th grade as both a responsibility and as a form of emotional care. As stated by a geography teacher during the focus group, "[my] first [responsibility] is when the students lack motivation, I need to motivate them for the NCEE." A chemistry teacher explained further regarding motivation, particularly if test or exam scores are low:

If students have fluctuations in their marks, but they still have strong motivation toward their study, then it'll be okay. But when they are burnt out and they don't have any motivation anymore, then that's a serious problem. This also happens frequently during the 12th grade. If this happens, we need to talk to them and cultivate their continuous momentum for the NCEE.

As explained by a 12th grade student, scoring low on tests has the following effect; "The first time you have full energy and you are very energetic, but when you do the second time, you are not quite energetic, and the third time you may be not energetic at all." To an 10th grade teacher who had taught 12th grade the previous year, there is an element of "lying" involved in cultivating both optimism and an equanimity towards poor results:

You still need to find a way to comfort them, make them feel better, [telling them] you need to work harder and improvement will come, but even *I* don't believe that. Some students are not that type of student, but they need to do the NCEE. So I need to trick them into believing that they can. That's not my personal belief toward teaching; sometimes they [students] just can't do it.

To this teacher, her responsibility to increase motivation and also emotionally and mentally calm her students outweighed her professional judgement on whether or not a student was capable of improving his or her scores. This was expressed by another teacher, who often felt conflicted with her responsibility to push students, because in the end, the NCEE result determines their happiness:

Being a teacher is very confusing because a student may not be good at school...She has lots of good characteristics, [but] she just doesn't want to study. She's not interested. I don't want to push her because she may not be happy, and this won't give her a better performance in the test. But if she doesn't do well in the NCEE, she will ultimately be unhappy. So, it's very confusing to me.

These two statements illustrate a conundrum of 'teaching to the test' that is beyond content and pedagogy, but extends into the realm of emotional care. In their emotional responsibilities toward students, the 'all or nothing' route of the NCEE creates conflict between what teachers feel they ought to do over what they have to do.

5.1.10.4 Creating a Bond

Despite conflicting feelings in teachers toward motivating students, particularly those who are not academically inspired, the responsibility of emotional care forms a special relationship between teachers and students. As explained by one teacher:

On the other hand, I kind of enjoy this period. It's like students and I are in the same boat, we have the same goal [success in the NCEE]. So, the relationship between students and teachers becomes closer and we support each other. Sometimes, students come to us about what they feel, their depression, their frustration and their future goals. So, we feel much closer than usual because we face the same problems, the same target, the same pressure.

What the teacher's statement above reveals, as well as previous data from students and teachers in this section, is that the problems, target, and pressure that both groups face with the NCEE create a sort of *equalizing* effect, where "they are all in the same boat." During my observations of teacher offices after lunch, when HR and subject teachers keep office hours for students to visit, students would drop in individually or with a group of peers to visit and talk to their teacher. During these visits, the interaction between teachers and students were close and friendly, with much joking and laughter. The relationship inherent in preserving a good *xintai* for success in the NCEE cements a bond for students to teachers that is defined by openness, trust and care. One teacher shared the following story about a student in her class whose continual low-test scores resulted in low self-esteem:

I remember one night she came to me feeling really depressed, so I shared with her an English song by Mariah Carey called "Hero" and she used my earphones and sat in front of the computer and listened. I remembered she cried the whole time, because [the song is about how] you can help yourself. From then on, she became stronger.

As teacher who had taught for several years explained about teaching 12th grade: "Basically the job doesn't change a lot (during 12th grade). Being a teacher requires a very stable personality and a very kind heart."

5.1.11 Conclusion: The Quantifiable with the Unquantifiable

Scores, whether at the individual, high school, district, or national (university) level, underlie the entire NCEE system. For students, they allow for "translation" of educational achievement and effort into a single score that decides their higher educational opportunity, which in turn determines their (and their family's) future socio-economic opportunity. In addition, scores allow for ranking of schools by the district – the higher a school's ranking, the more resources and status it is afforded. These in turn help to attract better students, with student quality also determined by scores. Thus, the importance of scores is self-perpetuating. Such action is illustrated by parents who criticize the "score-focus" approach of the school, yet when asked about why they chose GZ for their child, all of them refer to the high ranking of the school. The importance of ranking is brought to the forefront by the example of one 12th grade parent being quick to point out that GZ's ranking was "not that high" compared to other schools in Beijing.

According to data, there is a relationship between the desire for social mobility and the focus that students and parents place on scores; for the relatively well-off or those with alternate avenues, the pressure to achieve a high score is considerably less. This pressure is passed onto teachers, who express a normative responsibility for their students' achievements, particularly as parents are prone to blame teachers for their child's low performance. Even though low scores do not engender negative sanctions against teachers from administration, teachers refer to pressures stemming from society

and parents, as well as a cultural norm of disappointing a superior (the principal). Although teachers criticize such a focus on scores, stating that it contributes to a lack of student direction and low character, their teaching is based on exams and the results of these exams, particularly in the 12th grade.

As the incident of losing their number one ranking in a mock exam illustrates, the school (administration) also feels similar normative pressures for both their teachers' as well as their students' achievements. However, GZ's pressures are also material; unlike their teachers, low scores *will* engender negative sanctions from the district, as well as from society, through loss of reputation and status, and a possible drop in enrollment of high achieving students. Although the results may differ, student pressures are also "material"; a low score means lower future opportunity for both themselves and their families, as well as a loss of social reputation and status. Through cultural, normative, and material pressure, scores regulate school, parental, and teacher action, even if these actions contradict stated beliefs.

The pressure to achieve high scores is enormous; the unpredictability of the content on the NCEE, as well as the unpredictability of one's "mood" results in worry and nervousness for students. To handle this, participants stress the importance of a "balanced mood" or "balanced *xintai*", thus linking emotional and mental aspects directly to success in exams, particularly the NCEE. The importance of x*intai* requires a teacher to *guanli* (take care of in a parental sense), which embodies a hierarchical relationship; the responsibility, duty, and care that teachers have towards students is cultural, as expressed by studies on Confucian ethics of teaching and relationship (Peng et al, 2012). An emphasis on *xintai*, the emotional and mental state of a student, their optimism

towards taking an exam, as well as the calmness with which they face the results of an exam, all point to a consideration in Chinese education that examinations and testing are much more than mastery of tested knowledge; what is required is a specific type of "inner" mastery as well. At the individual level (student), the cultivation of a "balanced" *xintai* acts as a type of deterrent against the worry and nervousness one is sure to feel under the unpredictable, high-stakes nature of the exam.

In addition, cultivating a "balanced" *xintai* acts as an emotional "safety valve" for students under pressure from the NCEE (which also stems from their parents, their teachers, and the school); because it focuses on one's emotional and mental state, it validates individual feelings of worry and nervousness at the collective (school) and societal (parental) level. These feelings, however, can and must be controlled. The importance of this is illustrated in the fact that teachers are told by administration to "pay attention" to students' moods, and 12th grade teachers speak of calming or pacifying student fears as one of their main responsibilities as a 12th grade teacher.

The repeated practice of mastery through exams, from unit tests all the way to mock exams, and the emphasis placed on analysis of results that create a feedback loop back to learning goals set by district-level curriculum, illustrate a rational (quantifiable) approach to achieving success in the NCEE. Scores represent fixed numbers and allow for fixed targets; as explained by the vice-principal, the majority of his work attends solely to analysis of exam scores in the 12th grade. Through this analysis, teaching quality can be assessed and improved, if needed. In addition, scores allow for prediction of NCEE performance for the individual, the school, the district, and the future "cut off" scores for universities determined by the Ministry. Meanwhile, the importance of *xintai*

in data suggests an equal recognition of the unpredictable in the NCEE. As students discussed within their focus groups, there is much concern about the unpredictability of factors such as content, the environment, and most importantly, one's mood. The cultivation of a "balanced" *xintai* places emphasis on what is often viewed (perhaps in the west) as irrational – emotions are not "fixed" like numerical values, nor are they unquantifiable or predictable.

Thus, one of the ways the NCEE operates within GZ is through a system that recognizes both the quantifiable as well as the unquantifiable. Although scores ultimately decide and indicate learning and success at the district and national level, they exist alongside *xintai*, which also decides learning and success on the NCEE. Like scores, there is a belief that *xintai* can be controlled, and achieving a "balanced" *xintai* represents both mastery over one's emotions and the ability to handle pressure. This mastery is what puts the rationality of scores and the irrational elements of *xintai* together in a dialectical, rather than juxtaposed, relationship.

Finally, scores function "outside" of the school in larger society to provide both students' and GZ's placement in a system of ranking; for the former, this ranking determines higher educational opportunity, while for the latter, this ranking provides better resources, status, and a higher reputation. "Inside" the school, scores create a system of ranking in each grade, placing students in a particular class. In the next chapter, I explore this system of "internal" ranking in grade 12. Just like GZ's ranking in the district, students in the top class have access to better resources and higher status compared to students in lower-ranked classes.

5.2. Class Ranking

At GZ, each class is ranked according to a student's performance on exams; in grades 9 (known as New Grade 10), 10, and 11, ranking is determined by semester exams, whereas in 12th grade, a student's ranking is determined monthly, through monthly exams in each subject area. During my research, there were 6 classes in 12th grade, divided by ranking and subject stream. For example, Classes 1 through 5 were students in the science stream, while Class 6 was composed of all students in the art stream. Class 1 represented the top 42 students out of roughly 220 students⁵⁹. Because of the small number of art stream students in Class 6 (40 of them), there was no ranking within Class 6. Due to this fact, the student interviews used in this section are all students in the science stream, the majority being from Class One, with one being from Class Five.

The monthly tests for 12th grade students consist of the three required subjects for the NCEE (English (foreign language), language arts (Chinese), and math), as well as the three subjects determined by streams – Science is composed of biology, chemistry, and physics, while Arts is composed of geography, history, and politics. Ranking is sorted monthly by the total score for 6 subjects, though if students fails one of the three required courses tests, or two of the stream courses tests, they cannot get into Class 1, regardless of their score in other subjects.

⁵⁹ According to students, Class 2 is composed of 40 people, and classes 3 to 5 are around 30 to 32 students.

5.2.1 Issues with Ranking

Officially, the situation of student ranking within the school and associated class ranking has been "discouraged" by the government for several years, as it puts unnecessary pressure on students and interferes with the development goals of *suzhi* education. However, as a 12th grade teacher explained, the reality is quite different: "We don't do that (ranking) in primary and junior (school). In high school, we don't do that *directly*, but sometimes parents will ask you to tell them who are the first 10 students, who are the next, etc." The issue of "forced telling" was also reported by a 10th grade teacher:

"We actually don't tell students their score. They can find that out on the [district] internet. Other people don't know other [people's] scores, only theirs. This is one thing that our government has talked about, that we need to ignore ranking. So, in grades 10 and 11, we *usually* don't tell them scores and ranking, though students and parents want to know them. But in grade 12, parents force us to tell them the score and ranking. And students force us, too.

Although the teachers' statements indicate coercion by parents and students to report on scores and ranking, classroom practices help to reinforce the ranking system. As recognized by many scholars of Chinese education (Bakken 2000, Wu, 2016), learning from top achievers or "exemplars" is a common pedagogical technique grounded in a tradition of learning by emulation. Thus, a means of "indirect telling" of ranking is through the discussion of monthly exams, where high scoring papers are printed and given to students as examples. As explained by one student, "We learn from them; for example, X's writing [in language]. For me, writing is pretty hard. The full score of writing is 50 and sometimes I will get like 37 or 38. X can get 44 or 45."

5.2.1.1 Student Perspectives

According to 12th grade students, however, ranking by score happens much earlier than high school, contradicting the teachers' statements.

"They tried to do that in grade 7, for one semester only, and then they changed because some parents suggested that it wasn't good for students who were not in the best class. As far as I know, other schools are doing the same thing as us [ranking]..."

Another student reported that "[Ranking starts] the second semester of 9th grade actually. That's why they call it the New Grade 10. It's a process that connects grade 9 to grade 10." New Grade 10 are students who have passed the high school entrance exam as well as GZ's own selective entrance exam. Although they are actually in Grade 9, they are assured entrance into grade 10. Therefore, the situation of class ranking through the high school entrance exams provides a bridge between junior high to high school.

Interestingly, students were rather vague about how the system of ranking actually worked, since, at the class ranking level, individualized test scores were not transparent, only their overall score. As a Class 1 student remarked when asked how they determine ranking, "I don't know, I'm just told." In regard to how class 2 to 5 students are chosen, 2 students remarked "the rest of the classes are equal, they are divided equally", and that "Other classes are divided equally except for class 6 because that is Fine Arts." Meanwhile, another student remarked that "Other students are arranged randomly in different classes." Equally or randomly, ranking is based entirely on test scores.⁶⁰

⁶⁰ This situation was clarified later for me by the director of teachers and the vice-principal. Class One students are composed of the top 42, then numbers 43, 44, 45, and 46 would be placed in Class Two, Class Three, Class Four, and Class Five, respectively. This was followed by 47, 48, 49, and 50, etc, until all students were distributed "equally" among the classes. However, the fact that Classes Three to Five had significantly less students was not accounted for.

5.2.2 Changing Scores, Changing Class

The situation of multiple tests determining what class a student belongs to, and therefore, the changing composition of students, did not bother teachers, who stressed that changes were rare. As one 12th grade teacher reported "The students in certain classes rarely change. Even after the month's test they don't change, maybe after one year, the end of the year." Some 12th grade students also reported "slight differences" within their class; however, they also stressed that "The class will change, after every test." The changing nature of staying in Class One gave many students a feeling of competitive pressure, contradicting the statement by teachers. As explained by one student, "Because everybody has a chance to get into Class One, Class One is not permanent." Nonetheless, there was a general level of stability due to the predictability of constantly taking exams: "All of us are classified [ranked]. He is a good student [points to another student], though he is not in Class One. But I don't think the rest of us struggled to pass the tests because we knew we were going to pass." Despite this expression of stability, further conversation with grade 12 students revealed they were quite aware of the shifting nature of Class one.

5.2.3 Class One

Outside the door of 12th grade Class 1 is a colorful poster drawn by students with the title "自信, 自立, 自强" (Self-confidence, independence, and self-reliance). Martial art figures with determined faces decorate the poster, while the bottom states a common idiom "生命不息, 奋斗不止", which translates roughly in English to the saying "To struggle (or fight) until the last breath" (Appendix A).

5.2.3.1 The Importance of Surroundings

According to students, there are several advantages to being in Class One: "everyone can have a chance to get more education, to know more friends who are good at studying." As one student who had recently moved from a lower class into class one, the issue is one of class atmosphere:

[It's] the atmosphere, especially when others start studying. I do not have the courage to do my own thing, like something entertaining. So, I am affected by others and the atmosphere of Class One. And sometimes maybe I don't have a good score, so I have to be motivated by others, by comparing myself with other scores.

Similar views were expressed by a teacher, who had taught 12th grade, Class One the previous year; "[Class ranking happens] to make sure that the good students can be better. [If] everybody is good in this classroom, then you push yourself to be better, in that way. And when the teacher teaches, the speed can be faster, because they can understand at the same speed." This was reinforced by a parent of a Class One student: "The kids in Class One are very industrious and have very good learning methods, so my son learns from them. He can't learn this when he was in the other classes."

One student reinforced this view on good class atmosphere by commenting on distractions that exist in other classes, largely through negative peer pressure:

From our former classmates who failed to stay in Class One, they said that the atmosphere in other classes is different because there will be some bad influences by other students, like they are telling jokes and playing with their phones during class, and that affects them a lot. But in Class One everybody is hardworking.

This was reinforced, in a rather joking manner, by a Class Five student, bringing the issue of atmosphere again into focus:

Well, for me and class Five ... as an example, I sit next to a classmate – this classmate sleeps in biology, physics, chemistry, language [laughter from other students]. And sometimes he sleeps, and other times he tries to hide he is using his phone. So that really affects [me]. And when he is awake, he would talk and laugh, that kind of thing, so that really is distracting.

5.2.3.2 Competition as Motivation

Besides attributing their success to the environment or atmosphere of Class 1,

students mentioned a high level of competition for top scores; however, this was viewed

in a positive light:

I think being competitive and assertive is what's in our nature. So if I see my score is above others' and I'm making progress, then I will feel really proud of myself. And I think most of us feel the same. Everyone has a chance to get more education [knowledge], to know more friends who are good at studying, and.... Yeah, that may be competitive.

In addition, competition in Class One creates pressure, yet in a positive way:

If there's no competition, there's no pressure. And if there's no pressure then you won't study that hard.... if you don't have pressure, then sometimes you get lazy, and you might go outside and not do your homework. But if you see that your friend's score is higher than yours, then you'll be motivated and study harder than before. So, I think it's necessary.

When pushed further to elaborate on the issue of competition, one student remarked that

competition (and ranking) was inevitable, due to the necessity of selecting "elite"

students:

I think every exam is a kind of competition because you are ranked by the points you get. So, it's not about whether ranking is necessary or not, no, we have to do it. I think that good teachers are limited, educational resources are limited. So, the good teachers can only provide for some students, not to all. In order to select the elite, they have to do this. And to be objective, I think the teaching resources for Class One are better than others. The teachers are the top ones; they are the leaders of their subject.

With concentration of resources and talents at the top, competition in Class One is seen as

largely confined amongst themselves:

Yes, there is competition between all the classes, but Class one is better than everybody else, because Class One are the best students in our grade, so their scores will be higher than in other classes. The students in the other classes, they don't compete with Class One; they just compete among themselves.

The idea of who one is competing with was reinforced by a message from the principal at

a recent Sunday meeting with 12th grade students:

Well, from our principal's words, she once said we can look at the classification [ranking] as more important in the first two years of high school, but then in the third year, which is this year, we are all going to take the same test paper so we don't have to put our minds on *that* [inner-school] ranking. We need to broaden our views to the whole city or the whole country. We must see further.

This message was geared towards the upcoming semester exam where students would be ranked at the city (municipal) level, as well as the "mock" exams of the NCEE that were to follow in the next semester.⁶¹ In the parent teacher meeting for grade 12 in December, the principal again reinforced this message:

In other words, during the final exam we must have a relatively stable position in ranking. What do we call this [you are facing]? Within the district you are in a position that is not according to this small class in one school. Our whole district

⁶¹ In the mid-term exams that took place in November (district-level ranking), 6 out of the top 10 students in the district were from GZ. In fact, GZ students scored numerous 1st, 2nd, and 3rd places in different subjects. However, it was 2 students in Class Six, the Arts stream students, that took 1st place, in the subjects of geography and the subject of English.

has so many students, you must understand where you are in this, in your position within the district.

Although it contradicts what teachers had previously said about the district's (government's) statement suggesting less importance placed on ranking, it illustrates that ranking and competition are both crucial and inevitable when it comes to the NCEE. Also, it reaffirms the perception among teachers and students of how competition operates; not only does it matter where you are competing (which atmosphere), but who you are competing with.

Despite what seems as a serious emphasis on ranking and competition, the issue of ranking by class does not affect the friendships that students have across Classes; as stated by one student, "We have friends in every Class; we've known each other since junior high school." Another remarked that "It doesn't matter. There isn't a boundary between us. We are friends", with a third chiming in that, "Between students there isn't really any problem." A 10th grade teacher who had taught 12th grade the year before also agreed, referring to the fact that most of her students were on good terms with one another "They [students] have been together for six years, so they are good friends."

5.2.3.3 The Pressures of Class One

Although Classes Two to Five may not have a conducive atmosphere for diligence or top resources, one student brought up an advantage to having a less studious environment:

In other classes, they may have an organization [like a club or group] where they talk about a lot of things except for studying. I had an organization like that before, when I was not in Class One. [It was] like a team of five or six students

who get together to chat about a lot of things except studying. We were happy but our study was not very good.

A teacher, who had worked at the high school for 9 years, expressed a similar relationship between "happiness" and *not* being in Class 1, adding also a clarity of goals in higher education that develops without such a singular focus on scores:

I was teaching Class Three to Five, English. I think that compared to Class One they are much happier. And they are not shouldering a lot of pressure. What's more, they have clear goals compared to Class One. Because Class One, even when they have high scores, they *only* have high scores. They don't know what they can do with their high scores... Maybe for Class Five, their scores are not high, but their goal is just to learn English and go to a lower [ranking] university.

According to this teacher, Class One students are overly concerned with scores at the expense of their majors or interest. A high score equals success in the NCEE, and to one Class One student, that is where the focus should be: "I had thought about it [my major] for a long time, but I think it's just a waste of time because after the NCEE, I have about two months to decide which profession I will take. So now I just focus on the NCEE, and I don't want to spend so much time on that [thinking about her future profession].

5.2.3.3.1 The Role of Parents

For many teachers, being ranked in Class One was less a personal decision or drive by students than high parental pressure placed on students. A 10th grade teacher who had taught 12th grade before referred to a top student in her class:

It's the parents and also the student. They have this drive. I want to share with you a story about the top student. She was always number one, because of her mother. When her mother was a student, she almost got into Beijing University, but failed because of one point...She [mother] became an accountant in a hotel... the family's social status was kind of normal [middle], not that high. The father also had failed to enter a university, so the mission of their daughter was to go to Beijing University.

A former 11th grade teacher, now the librarian, also expressed a similar view, talking about the "hopes of parents:" "You know some people, they couldn't fulfill themselves when they are young, so they put false hopes or their beautiful false dream on their children." At GZ, the drive of parents forces many students to try for the top universities; however, although GZ's ranking in the district is #1, the scores of its students are not high enough for top universities, as stated by a 10th grade teacher:

Only five students in my class [of Class One] got into Beijing University. Five more wanted to go to Qinghua, but they failed. So they have high scores, but they are not THAT high. Because they have so many choices [for universities], they don't know which is the best... They all go to top universities, actually. But it depends on how you define "top."

The issue of parental pressure to enter a "top" university (211 or 985) was reiterated by another 10th grade teacher: "If you go to that level [of a top university], you are better than the lower level [those that achieve a lower stage], so that is what Chinese parents are always looking forward to." The statement about "you are better than the lower stage" again reflects the long-standing belief of education for social mobility, yet it also reveals the inherent hierarchy that exists within the NCEE system, in terms of achievement, status, and resources. This is compounded by the need to continually improve, as echoed by a father of a 12th grade student: "to be frank, my wife and I both have high expectations for our daughter. As we both graduated from university, we expect her to go to a better university, like a top university, like the 985 universities."⁶² The justification for a top university was that, "in China, going to a top university insures a bright future for work." As one 11th grade teacher remarked, the focus on entering a top

⁶² These are the top 39 universities in China, the 985.

university by parents is actually detrimental to students' future, yet in a different way: "Yes, [the students] think about which university they can get into, but most don't have any clear direction about the future. Mostly it's their parents' idea...It's still very difficult to get into a top university like Qinghua." These statements reflect the support that parents have toward hierarchical ranking. They also represent an assumption that Class One, or being at the top, translates into a better chance to enter a top university.

Some parents, however, had quite a different view towards their role in pressuring their children, as one parent explained:

I actually don't care much about my son being in Class One or not. What I really care about is whether he acquires knowledge that's good for him. A not-so-good aspect of Class One is the competitive pressure and stress because it is the best class... If my son's achievements cannot reach the level of Class One, I do not worry about it too much. As long as he can identify his own weaknesses and put more effort on those weaknesses, that is fine.

Another 12th grade parent, commented on the negative effects that a focus on being a top student creates, recalling the situation of her own education; "the students thought that if they knew something, they would not teach their classmates because it would put them in a disadvantageous competitive state. That made the classroom atmosphere really bad, and the teachers could only teach by themselves. The students did not share with each other." According to this parent, who came from a rural area, the situation of her son and his environment is very different, particularly as it was "no longer necessary to improve [his] life condition."

5.2.3.3.2 Effects on Students

As well as parents, students in Class One expressed anxiety over being able to achieve a high final score, pointing to an internalization of pressure as well:

I often think I am not hard-working enough...I'm not afraid of eating bitter⁶³ (吃 苦), to be very hard-working. But I'm afraid that I will make a lot of effort in my studies and they won't come to a good end or result. I'm afraid of this, I'm not afraid of working hard... I'm not sure what score level I will get to but hope I can get to...maybe, 650? That's pretty high [laughs].

The internal pressure of always achieving top scores negatively focused a student's attention on comparison with others, a explained by a former head teacher for Class One, grade 12:

For example, a girl couldn't sleep for several days because she was afraid of not staying in Class One, because in her opinion [thinking], everyone knew how to do problems in math or physics, and she wouldn't do as well as others. One day, she was not the top scorer, so the principal asked me to talk with her. I told her, "you know, I'm not the kind of person [teacher] who focuses on the grade [score]. It's ok, you don't have to be the top one; believe me, you are the top one." And she cried. I was happy at that time, thinking that she was relieved. The next sentence made me cry. She said "You are the class teacher. You are the most irresponsible teacher I have met, because you don't focus on my grade. How can you do that?"

These comments reveal the high level of pressure felt by students in Class One, whether

from their parents, or from themselves. Although some participants criticize the system,

particularly teachers, for the detrimental effects of pressure, the majority display little

reflection toward striving to be at the top.

5.2.4 The Collective Nature of Ranking

While students in Class One celebrated the characteristics of "self-confidence,

⁶³ See section 1:3 in Chapter One for studies on "eating bitter."

independence, and self-reliance", the importance they placed on a studious atmosphere with other classmates and positive motivation through competition with one another, illustrate an interdependency between self and group. This interdependency was also stressed by administrators and teachers, who emphasized the collective nature of ranking and comparison (in a positive light), often stating the difference between Western and Chinese thought or culture. In regard to the poster title of Class One, the principal stated:

The Chinese and western way of teaching is different because in the west, it's one person who improves; well, here it is more that the group improves, so [that] everyone improves. First you have to improve yourself, after that everyone can improve. If all the students are the best they can be, then everyone improves. We compare classes, like Class One, Class Two, etc. We make them into a group, and the ones that are the best, we learn from them.

The difference between China and the West was also expressed by the head teacher of 12th grade, "Different countries have different cultures. For example, in my opinion, American people they like to be a hero, a superman, but in China, we prefer not to have a "one-person" hero; it's a different culture... Our thinking is not the same as yours, where one person is pushed out and made great [the best]; it is to make everyone great. This is our thinking." This was also expressed by the principal at the 12th grade parent-teacher meeting, but in terms of failure: "And in China we have an attitude to not let even one student be behind. This is very different from American high school."

5.2.4.1 Strength and Identity

A 12th grade physics teacher also stressed the importance of ranking not on scores, but on creating a group (class) where everyone can contribute personal attributes to build collective strength:

This is a cultural thing. For example, there is a person who can cheer [someone on] and another can also teach. That person may be easily touched by collective strength. For example, some people make up a class and some scores are very good. Some scores are relatively low. They can help each other and then everyone is good enough. I think this is a very good method. I won't say [specifically] "He or she is very good." Each class has different levels, and the levels go together.

In response to why, then, different classes were ranked, the teacher replied:

If the disparity is too great, and you put them together, probably they as a whole will move forward, but efficiency will be lower. We hope that by separating them first into these groups [Class One vs. other Classes], they can improve. It's not that all the good and all the bad students are put together in [separate] groups; we put them together [with each other].

To this teacher, the separation of top students in Class One to achieve "higher efficiency"

was a practical issue. This idea was also elaborated on by a teacher of English, who

emphasized how she comforted students who had not made it into Class One:

Sometimes I help them, I try to make them know that they are not BAD in this way; [it is] because we have different levels of students to teach. We tell them that it is good for them when they are learning English, because if you are with people who are really good, then the teacher will have moved on, and you won't know the material.

The situation of different classes and ranking will be greatly affected in 2018 by

the reform. Whereas the former way of ranking used scores from all subjects, later Class

rankings will only be determined by English, math, and language scores. To the director

of teachers of GZ, this continuity of ranking was positive:

These [classes] can still be grouped by the former [administrative] system. This is also positive for the formation of collectivism. If collectivism decreases in China and individualism increases, this will be negative for China, because it has a long history of collectivism. Also, being in a group, in a collective group, is good for students to have a balanced mood (*xintai*) through their peers.

The importance of having a relationship with one's peers, formed through a Class identity, was expressed by a 10th grade teacher who taught Class Six:

They have classes together, like Class Six has math together, chemistry, etc. as a whole class. In western countries, maybe the students go to different classrooms to have different subjects. But I think that students studying together as a whole class helps them to be responsible for the whole class. They have to work together, love each other, help each other. It's like a community. This is also an important quality when they grow up.

The collective attributes of a Class are reinforced through activities designed by the moral education department, as well. Each Class is responsible for cleaning their own classroom, inspecting each other's work, and behavior, such as fulfilling daily exercise requirements. Monthly contests where classes compete against one another also serve to reinforce class-centered, collective behavior. As stated in one announcement regarding inspection of classrooms, "Thanks to these classmates for their exemplariness [behavior] and class cohesiveness... members have set standards and an orientation for everyone in the process of checking routines...The standard (given) leads everyone to work together to create a positive, united, and efficient collective atmosphere." Meanwhile, an announcement at the beginning of the school year in September emphasized the need to learn from and emulate "advanced" or higher-ranking classes, following two speeches by top students in the 12th grade:

At the beginning of the new school year, many classes have had to make some adjustments. I hope that all the students can adapt to their new Class as quickly as possible, learn from the collective experience of the top classes, follow their expertise, and create the class characteristics and class culture that belong to these classes.

5.2.5 Conclusion: The Paradox of Ranking

Class ranking, though done at the individual level, is also viewed as necessary from a collective standpoint. Like scores, the situation is highly complex, leading to conflicting accounts between action and belief. Parents reinforce the system of ranking through a focus on comparative scores, and yet others challenge it, claiming that a constant focus on being in Class One exerts too much pressure on their child. Regardless, parents, like students, recognize that within such a hierarchical system, the best resources (teachers, environment, students) are at the top. Meanwhile, students claim that ranking, and the competition it engenders, leads to cooperation and support, yet it is clear from their statements that they are "top" and "elite" at GZ, particularly as Class One students "compete amongst themselves" and not with other classes. Finally, teachers claim that ranking and the stress associated with getting into and staying in Class One produce many ill effects; nonetheless, they simultaneously use the work of top students as pedagogical models for review of monthly unit exams, and top classes in moral education are used as a role model for other classes in both knowledge and character, as seen in the school announcements by the moral teacher.

The issue of ranking every student is highly individualistic, yet it is viewed by students, teachers, and the school as a "collective" in nature, resting on notions of peer support and a collective strength through diverse individual strengths. Interestingly, collective strength, where good students assist lower or weaker students, helps to create a "middling" situation, in which everyone improves and is "good enough", as stated by a 12th grade physics teacher. As data reveals, though, Class One does not operate on a similar ethos. This is reasoned by one teacher that the disparity between top students and

others is too great. Thus, teachers and admin, regardless of what they say, recognize and reinforce an "elite" teaching and learning in Class One.

Ultimately, it is the individual score, the individual achievement, rather than the collective that determines a student's success in the NCEE. As preparation for the NCEE, students in grade 12 are told to enlarge their vision of competition from beyond their classmates to competition with the whole nation. One could argue that the collective is a façade, and that each student is going after their own "rational choice" goal; however, there is enough data to suggest that ideas of collectivism are still an integral part of education at GZ, as seen through class-based activities that reinforce class identity and a sense of community. In the words of the moral teacher, these activities help "to create a harmonious environment for the grade."

In conclusion, ranking, though it focuses on individual achievement, also serves to create collective groups. Within one's group (or class), aspects of community play out; as seen in student statements regarding "environment," individual action is seen as secondary to group action. At GZ, group action and subsequent behavior/responsibilities seems to be based on Class ranking, and for Class One, an essential component of belonging to the top class translates into top scores and top universities.

5.3 On Knowledge

Alongside the standardized system of scores that characterizes the NCEE exists a form of standardized "knowledge"; curriculum content is regulated, determined and delivered based on relevancy to the Exam. As Charlene Tan argues in her article on cultural scripts for teaching in China, "the assumption held by the Chinese since antiquity

is that knowledge is generally not fluid, constructive and subjective, but relatively fixed, essentialized and objective," revealing a fundamental difference between western conceptions of knowledge and what constitutes "knowledge" in Chinese educational thought (Tan, 2014, p. 204). "Fixed" knowledge, like mastery of learning demonstrated through scores, can be codified, assessed and gradated.

This section examines data on participant views about knowledge, both from the standpoint of "tested" knowledge and more general ideas about knowledge and education. What data reveal is a distinction between the knowledge of the NCEE and the knowledge one gains through the process of taking the NCEE. Knowledge gained from the process is much broader and wider than what is tested, with both individual and social connotations. As statements indicate, ideas about the value and purpose of education have little to do with the knowledge tested on the NCEE, illustrating a discrepancy between the knowledge they learn in school (the tested knowledge of the NCEE) with educational knowledge, which can be described as a wider knowledge that affects the character of a person, with social ramifications.

5.3.1 Meeting the Standards: Top-down Curriculum

Curriculum in China utilizes a top-down model that consists of three levels at the national, regional, and school level (OECD, 2015). At the national level is the Ministry of Education, the regional refers to provincial-level educational departments, and this level is further broken down to the city and district level before finally being implemented in schools. Due to an emphasis on "local variation" (beginning since 1986), NCEE content differs across China; nonetheless, the curriculum content that is taught in any school is determined by what is tested. As stated by the principal, "The requirements [for the class]

must always be these, because of the examination papers the government gives us. If the government does not approve of content, then it will not be tested." The topics for a subject are based on the content of nationally approved textbooks, which are created at the provincial or municipal education commission level. Testing, however, occurs at the district level; "we have textbooks; these must serve the purpose of meeting the content of the district examination" (10th grade head teacher). District examinations, however, are geared towards the NCEE, even in grade 10.

For 10th and 11th grade, district examinations (twice yearly) create target goals for subject curriculum; in this way, they also determine the rate of learning. As the librarian, a former history teacher stated, learning is determined by "the units in a textbook... they [district-level government] have a lot of specialists...They organize the materials, the teaching materials together and form a unit. And they make a basic guideline, a timetable, for the schools to start and finish a period of study." This was confirmed by the principal:

The country has policy requirements for this. They have requirements for each level and what you must do. Every subject has a different book, and the teachers refer to the book for requirements; they must achieve these. If teachers do not fulfill these requirements, students cannot be successful. Because our exams concur with textbook requirements.

For the 12th grade, learning and teaching rate are determined by the NCEE: "All of our teaching targets are kind of based on the NCEE, the requirements for the examination. We can go beyond the college entrance exam [in content], but actually, we just focus on the requirements of the college entrance examination" (director of teachers). According to the vice-principal, goals in the 12tth grade "are set according to the district plan of knowledge [content] for the NCEE:"

Like I first said, the students must know the curriculum. This lets them know what kind of person they can be in the future. The NCEE helps them achieve this. The NCEE shows them what majors they can choose, what kind of higher education they can get. And this is closely related to the efforts they [students] are doing... It provides a reason for them to study.

The requirements of the NCEE translate knowledge directly from the test to a student's future major and work opportunity, thus providing a type of justification.

5.3.1.1 Top-down Training

To supplement curriculum, the Ministry of Education produces a national curriculum plan for both primary and secondary education, including guidelines on curriculum management and lesson hours. At the provincial level, educational bureaus are charged with 'fitting' national curriculum objectives into the local context. Once approved by the Ministry, the provincial plan is passed onto district-level bureaus; although teachers plan according to the objectives and levels set out by the (localized) provincial plan, class objectives, teaching methods, and training on any new curriculum reform occur at the district level. An 11th grade math teacher described trainings for her subject:

We actually have an official version of the skills [in math] from the Ministry. Every training is from X district. Older [experienced] teachers share with us the basic skills and thinking about a chapter. For each design of my teaching plan, I need to plan something like that... Every chapter we need to be trained. Before we start this chapter, our leader [the director or principal] will invite some experts to share with us their experience – which part is hard for students, which kind of problems we may face, and how to teach something. You can learn from them, these experts, but you don't need to copy from them.

As seen from this teachers' statement, trainings help to enforce (at the district level) a standardized approach to teaching and hence, student learning – "every chapter we need

to be trained." At GZ, trainings in all subjects occur between 8 to 10 times during the semester for grades 10 and 11; for 12th grade teachers, however, trainings are more frequent. The Teacher Training and Research Center (教师进修学校), part of the district Education Commission, provides the majority of trainings.

In addition, every teacher has one afternoon off per week, known as "teacher research time", regardless of training or not. As explained by one teacher; "I don't have classes on Monday afternoon because this is teaching research time; we will either go to other schools to see teaching or we will have a meeting conference [workshop or training]." Outside of scheduled time, unscheduled time off for teachers to attend training is a regular occurrence in the school. During the weekly school announcement given by the moral teacher over the loudspeaker, there was this announcement: "When the flag-raising ceremony is held every day during our classes, (even) though the reason why the homeroom teacher is absent from class may be due to training, can we still approach it seriously and have a loud voice and sing the national anthem loudly?"

5.3.1.2 Top-down Reform

Although trainings are geared towards curriculum teaching and learning, they are also important in subject-based reforms, which is more often the reason for training. In particular, efforts towards more student-centered practices and less rote memorization are being stressed in trainings. According to a 10th grade English teacher, "We are used to just teaching them vocabular, how to recite, our classes are a little rigid. Currently we are thinking about why we are learning these subjects, and how the classes should also be

reformed... it's a little abstract." Meanwhile, a 10th grade language (Chinese) teacher stated that trainings are far behind the pedagogical approach used at GZ:

Our new [subject] reform told us that we have to teach Chinese like this. But we are already teaching like this. When you teach something, you have to give your students a test and then you can't just show them the test and tell them what to remember. But we don't do that; we've never done that... because these reforms are for all Chinese schools, but in Beijing, we already have this high standard. We don't use rote memorization.

According to this teacher, pedagogy in Beijing is more advanced than in other areas of the country and the reliance on rote memorization at GZ is less. Numerous teachers attested to this fact as well; for example, the 12th grade mathematics teacher commented on GZ's effort to enhance the ability of students to be creative and self-directed in their learning:

It's more important that they identify the problems and solve the problems. It's acknowledged by many people that the students from mainland China lack the ability to do this, find problems and solve the problem. But our school has put full emphasis on strengthening these two abilities for students... We have our own practices.

The fact that GZ has its own practices was re-iterated by the director of teachers, who is in charge of teacher training: "The schools have to make their own adjustments [to curriculum] according to these administrative orders [from the district Education Commission and the Ministry]. But different schools have different understandings about these practices." According to the director, inspection to ensure that trainings are being implemented occurs only once or twice yearly, performed through the Teacher Evaluation Center under the district Commission. Thus, despite a standardized curriculum and training determined at the national level, numerous interpretations and varying degrees of implementations occur as curriculum is filtered down to the school.

5.3.2 English Textbooks: the "Special" Case of GZ

An interesting example of an "adjustment" to curriculum is the use of foreign textbooks as classroom English textbooks at GZ, rather than government-issued one. As explained by the principal:

I use the Oxford [books], but the country [Ministry-level] is not happy; they want me to use their textbook. They don't understand. The skills in the American or English books, of course, are better. I don't use the Chinese books. Their idea is too much trouble. In the past the English section of the NCEE was just memorization, so it was better to use the Chinese textbooks.

According to teachers and the principal, the English section of the NCEE has undergone many changes in the past eight or nine years to include skills such as listening, speaking, and writing – skills that the government textbooks are weak in addressing. Meanwhile, GZ students have consistently performed well, as demonstrated by one student scoring the highest in English on the district exam in December 2017. Teachers attribute this high achievement to the foresight of the principal. As explained by the head English teacher for 12th grade:

The principal knows that everything she does is right, so the teachers follow her. Everything about her teaching approach is really, really advanced – I would say [by] almost 40 or 50 years. When I first worked with her, she was already familiar with the communicative approach [in English teaching], and then ten years later, every school is saying, "please use this [method]."

According to the principal, the issue of government regulations that schools must use their textbooks has little to do with improving curriculum: The government says we must use their textbooks for political reasons – the Ministry does not allow schools to change their [Ministry] textbooks [for others]. My school is unique. It is alright for me, but not for others, even though the government says you cannot use other textbooks. For many years, no one has come to inspect this. Also, my scores are high. I tell them the [London] textbooks are supplementary reading, even though they are the main textbooks. The teaching method in this [points to government textbook] is troubling because it has not changed.

To the principal, the reason "no one comes to inspect" the use of textbooks at GZ is because of the high scores achieved in English. This implies a higher level of autonomy for high-achieving schools in adhering to nationally mandated curriculum. As stated earlier, although GZ's ranking at the municipal level is not that high, it is the top school in its district, and inspection occurs at the district level. During my fieldwork, the new NCEE reforms required students to sit the section of the NCEE twice a year, once in December, and the other in June. While other schools struggled to fit a year's worth of curriculum into six months, the principal's approach was that she was "not afraid," stating that the skills at her school "are higher than the NCEE. I want their level to be up here [high], and then the NCEE is no problem; it is a small thing."

The use of Oxford textbooks, however, only extends up to grade 11; in grade 12, teaching focuses on what will be tested in the NCEE. As explained by the 12th grade head teacher, "Yes, the NCEE is the objective and the goal for guiding them. But for the first two years maybe not much... and then in grade 12, it becomes, "okay this [the NCEE] will be your goal." The change in grade 12 curriculum was referenced by a 10th grade language teacher who had taught 12th grade the previous year; "for the final year, they don't have textbooks at all; we will give them a lot of test papers. We teach exams, how to do well in the examinations."

5.3.3 Grade 12: The Importance of Review

In 12th grade, all classes are for review of NCEE material. No new skills or knowledge are introduced, and class time is geared solely toward preparation for the NCEE. In the words of the principal, "The 12th grade is the most important grade in the life of a high school student." The importance of the review process was underscored by a 12th grade teacher regarding students who still had not completed what needed to be learned in the 10th and 11th grade.

But for some students they have to learn new knowledge, even the first part of grade 12th. Some of them, maybe (it is) the first one or two months, and they finish the knowledge they need... in the third year (12th grade) it is like a complete review of what they have learned in senior high school.

This emphasis on review is what distinguished teaching 12th grade from teaching 10th and 11th. As stated by a geography teacher, "In 12th grade, you are studying for the exam. It's a different purpose. For 12th grade you have to improve your examination [testing] skills."

Thus, students (and teachers) in the 12th grade spend a lot of time taking examinations and practice tests. Often, the importance put on exams and tests gives less importance to comprehension of material than ensuring "the right answer." A math teacher explained this in the following way, "that's the most difficult part, I think. In 12th grade, we repeat the 10th and 11th grade. We need to do this because even though students cannot understand, they need to get a good score, so we review [the material] in 12th grade. 12th grade is a little bit different than the other years. In the first two years, understanding is important." The importance of repetition was also stressed by the head teacher for 12th grade (physics): "In the process of review, a few problems come up, the

students' understanding is not clear, maybe about a principle, how to get a certain answer. The students aren't too clear, but they know they must do it, so we must return to it (the problem)." Meanwhile, a language teacher commented that she'd "like to teach something" in the 12th grade, since "just doing the exams, just doing the practice with no group work or presentations... is boring."

5.3.3.1 Monitoring the Review Process

The responsibility of what knowledge is reviewed and when it is reviewed lies with the vice-principal, who is responsible for the management of teaching and learning. The main task of the vice-principal, which he has been responsible for since 2004, is with the review and testing process of 12th grade, since, as stated by the vice-principal, "the 12th grade classes are the main focus of my job":

Our goal is to systematically explain the knowledge of the NCEE, to give them [teachers] the overview of the whole exam. For example, the first review in a class. I have to make sure all teachers understand the goals, [and I] give them what is needed for reviewing... These goals are set according to the district plan of content for the NCEE... That means that at the very beginning I need to develop a working schedule for teachers that includes what kind of tasks they need to finish, which period of the whole year, what are the aims of their workload, the key points of their work, the problems, and then a quality analysis of testing.

The "quality analysis" of testing refers to student scores in 4 exams – the mid-term, the end of semester one test, and the first and second 'mock' exams, the latter two being practice exams for the NCEE. By analyzing the scores through comparison of learning goals and student performance, the vice-principal can assess the degree to which goals have been reached and adjust accordingly: "After the [first] exam I analyze the results, like the mistakes of the students, and by monitoring the test results, what teachers can tell from the result of the students. This helps teachers to discover learning issues, and the ways to handle these issues." In this way, there is a linear development of both learning and knowledge towards the final destination of the NCEE.

In addition to assessment of learning goals by test scores, the vice-principal is also in charge of teaching quality, which he performs regularly through classroom observations. During observation, he looks to see if teachers "reach their goal of review" and "if the students participate." However, student participation is defined by "student responses":

For example, "I don't like it, I can't do it, I don't understand the teaching content." I will observe the students. If the teacher has just given an explanation and then the students have to do an exercise, I will observe whether the students can do this correctly... these two aspects help me to decide the quality of the revision [lesson].

According to the vice-principal, he observes between one or two classes per week. However, when I asked 12th grade students and teachers if the vice-principal had visited their class, all of the students answered, "no" and teachers answered "rarely" and "only if there is trouble with test results." Thus, even in regard to teaching quality, the majority of feedback is through assessment by test results.

5.3.3.2 Student Perspectives on Review

To some students in Class 6, the review of material in 12th grade was helpful and important, not only for the NCEE, but for learning in general:

S4: It is really useful. I don't really care what score I get in the exam, but the knowledge I get in the lessons benefits me a lot, and sometimes it makes your life more interesting... I just want to live a happy life.

S1: I feel like I am learning a new thing, because I was kind of a lazy student when I was in grade 10 and grade 11. So, I didn't really do a good job at that time. When the teacher started to review the things that we've learned before, it's in fact a new chance for me to persist and learn that knowledge. I feel like this is my second chance to learn this knowledge, and I need to be really hard-working.

S2: I think it's interesting because during this review time you can get to a deeper understanding, 内在的联系⁶⁴, (inner connection). If you get to this point, you are just like climbing and climbing...You are at the top, and you can see everything. It's really interesting.

However, not every student in the focus group shared the same viewpoint:

S5: It's only review, it's boring... because in class I don't understand...I can't understand.

S3: He has fallen behind.

S5: I will take more time every day to catch up.

To Class 6, the review of material enabled a deeper understanding of what they had learned in high school, as well as a chance to not only relearn previous material, but relearn it well through persistence. For another student in the group, however, the review of previous material did not automatically translate into understanding; "I didn't learn very well the first time, so I forgot... And now the teacher is reviewing it in a deeper way... I've already forgotten the beginning; it's really confusing." Thus, like S5's situation, there is a set pace for review in class, and not every student is able to keep up, despite the repetition. However, the way "to catch up" is through more effort and time, particularly as success in the NCEE, for Fine Arts students, relies heavily on memorization.

⁶⁴ I kept the original phrase here because it is difficult to translate this meaning; the closest meaning in English would be like having an innate relationship with knowledge, to know (and understand) something that deeply.

5.3.4 Relying on Memorization: A Difference in Streams

Memorization is an important technique for NCEE preparation and occurs in every subject, though it is in the Fine Arts stream where memorization for the subjects of history, geography, and politics is emphasized the most. One student remarked, "there's some knowledge that you must remember, [that you need to] memorize it. It's a kind of method to help us learn. The teacher takes time from class to let us do some memorization work, and then we write it down on paper. It's the class assignment." Despite numerous curriculum and quality education reforms, the emphasis on memorization to prepare for the NCEE remains strong within Fine Arts subjects. An 11th grade teacher who also selected the Fine Arts stream in high school, recounted her NCEE experience: "From 2002, history, geography and politics were combined together as one exam paper, and that was my experience... I am good at learning these subjects, and I could clearly memorize all kinds of events or times... so for me I think it was not [such a] difficult experience with memorization."

At the 12th grade parents' meeting, the principal specifically admonished Class 6 students for discounting the benefits of memorization:

Additionally, geography teachers have given students in the arts stream ideas about basic content in geography, politics, and history, but the students are still making mistakes. You always say memorization has no use; if your basic knowledge is not correct, how will you do in the future (next semester)? You need basic knowledge and memorization to strengthen your arts stream. Don't think it is troubling for you; you have to change.

According to the librarian, who used to teach history, memorization of dates, places, eras, and the reason and sequence of events are all essential for passing the NCEE.

Interpretation within these subjects is hardly encouraged, given that the answers do not lie with the teacher but are "all in the textbook" or "teacher materials." Besides, interpretation would entail mastery of comprehension not necessary for the NCEE; "[There is] content you have to remember by heart and maybe try to understand, because some knowledge you just need to be familiar with. So, there are different levels of knowing."

5.3.4.1 Disinclined to Memorize: The Science Stream

The emphasis on memorization and recitation was also expressed by 12th grade students in the science stream (Class One), who, during a focus group, stated that this pedagogical emphasis was why they had chosen science over arts:

S1: Because we hate reciting.

S2: The way of [learning] Fine Arts is you have to memorize a lot, like in history.

S3: And I think politics is really boring. Because science is always new, but politics they just recite, and it is very, very annoying... because we cannot understand it, but we have to recite it. It makes us very annoyed.

S1: I think the knowledge of arts we can learn by ourselves. And it requires less comprehensive thought than learning science. And besides, reciting can be tiring, so I don't regret [choosing science].

These students' responses indicate a dislike for memorization and the pedagogical approach of learning by reciting without comprehension. Moreover, there is a general disdain for arts as something that they can "learn by themselves." Among both students and teachers, much criticism was leveled against politics,⁶⁵ which even Class Six students

⁶⁵ Politics includes political doctrines such as Marxism, Leninism, and political thoughts by Chinese leaders such as Mao, Deng Xiaoping, Jiang Zemin, and most recently, Xi Jinping. Pictures of these leaders are ubiquitous in every K-12 school. To enter graduate school, all students must re-take and pass a politics section, regardless of their major.

expressed difficulty comprehending. As my interpreter, a graduate student, explained to me, "Of course you have to memorize it. But you just do it and forget about it afterwards."

An 11th grade math teacher also expressed a dislike for memorizing when speaking of her choice of science:

When I was a student - when I faced choosing science or Fine Arts - I liked Fine Arts, but I hated memorizing. I liked history, because I liked the stories. I also liked reading geography, but I didn't want to memorize, so I chose science because science is focused more on understanding. I didn't want to memorize long articles or dates.

This teacher drew a parallel between teaching her own subject, math, with science; "I think like science classes, math is about understanding, not memorizing."

5.3.5 A Preference for Science

However, the choice to learn science subjects instead of Fine Arts cannot be attributed solely to issues of learning and pedagogical styles. At GZ, participants expressed a bias towards science over arts – one that reflects a historical bias in national directives towards science since the beginning of state-controlled education in the 1950's, yet is embodied in individual and social concerns.

A good example of this preference can be seen in the meeting and conference room at GZ, located across the hall from the principal's office. Furnished in the ubiquitous style of "official" furniture – dark and heavy wood that always seems oversized – the meeting room sits up to sixteen people around a table that runs the length of the room. It is the site for formal meetings, whether with the Ministry, trainers, or visiting teachers and students. On the main wall of the room sit two pictures of a female GZ graduate who went on to become an astronaut. The first shows her with her astronaut's uniform and helmet; in the second, she is pictured standing next to the principal at a GZ graduation ceremony, surrounded by 12th grade students and teachers. She is a "celebrity" graduate, attaining a career that signifies the ideal of education in modern China – scientific, technologically advanced, innovative, and in the service of the nation.

5.3.5.1 Key Universities

A preference for science was expressed by numerous stakeholders, ranging from practical concerns requiring university admittance requirements, better job opportunities, to a preference for learning. In high school, the choosing of streams is directly linked to a student's future opportunity in higher education. The key universities (belonging to the 211 and 985 projects)⁶⁶ are top research universities and require science courses for students to apply, with focus placed on physics and chemistry. As a result, there is a marked advantage to choosing science over Fine Arts when applying for admittance into these universities. As stated by a 10th grade language teacher, "More major universities require the study of physics or chemistry and math... [so] the subjects of physics and chemistry will promise them a better, broader choice of majors in the future. That is what I mean about being practical." The practicality of choosing science for higher education was also expressed by a 10th grade geography teacher: "Choices of majors requiring Arts are fewer, so in high school, more students tend to choose science. This is because of the arrangement of the university in terms of majors and curriculum – they want more

⁶⁶ See section in Chapter 4 for an explanation of these terms.

science-background students. And the perceptions of society [social beliefs] are also related to this." To this teacher, majoring in science carries social distinction.

5.3.5.2 Better Opportunities

Since higher education is tied to future employment opportunity, many parents prefer for their child to choose science. As stated by a 10th grade parent, "I personally prefer my child incline toward science, because I feel that employment [with this field] is good. In terms of a someone's personal development in the future, the space for opportunities will be bigger." Meanwhile, a 12th grade Class One student had the following to say about her choice of science: "Science is more suitable for me. and the other reason is because I am coming from a family where my parents are both engineers. I think they can give me some help so that I won't make so many mistakes in choosing my career." According to an 11th grade teacher, there is a lot of pressure put on students by their parents to choose science: "most parents want their child to learn science, because it's quite useful. And they have a wider choice of majors at University. Maybe for some students, they really like learning Fine Arts, so that's an argument between the student and the parents." The negative aspect of parental pressure for science was expressed by a 10th grade language teacher, in regard to some of his students; "I think some students, they have a low capability for science. If you make them choose it, it's not good for them."

In addition to a better, broader choice of opportunities in the future, the historical emphasis on technology, scientific research, and innovation that has dominated higher education since the 1950's has created a bias in society for science rather than arts. As explained by a 10th grade math teacher, "We always have a lot of people choosing

science because in our minds, we think that if you are good at science, you can do everything," a sentiment echoed by a 12th grade teacher that science "can make people think better."

5.3.5.3 The Limits of Science

Despite the fact that science garners so much attention among parents and the school, the top scorers (students) for the mid-term district exam (scored the number one scores in the district) were both from Class 6, the Fine Arts Stream. When asked about this, a Class 6 student replied, "I don't think it's very difficult because they (Class One) don't have any special advantage in Chinese or English subjects. Maybe they are better at mathematics or those subjects, but I don't see any difference in other subjects." According to a 11th grade English teacher, students in the science stream rely more on memorization for her subject, rather than understanding or communication; "It's because they believe there isn't a better way to learn English. They think that memorizing vocabulary is the way, but it's not." Meanwhile, an 11th grade language teacher had the following to say, "Science students find Chinese really difficult to learn because the knowledge they learned during the lessons won't be the same topics or points that are going to be on the exam. So, the knowledge of Chinese is wider than just the textbook; it's beyond the textbook." Interestingly, despite "hating memorization" and "reciting", 12th grade students in the science stream employ the same techniques towards learning in other subjects that they dismiss.

5.3.6 The Importance of Effort

Regardless of being in the science or Fine Arts stream, 12th grade students' views on the review process for the NCEE reveal attitudes towards learning where the content

of what is learned (book learning) is not as important as what "learning" garners,

particularly in terms of self-discipline:

I think it's not very important what we learn now in school... I think the most important thing we learn is how to face something that is difficult. Because in these one or two years, we have to be strong and we have to be patient to get through every day. We have 10 classes during the day and 3 hours of studying at night, so we must be strong to get through all of this. After the exam, in the universities, for example, nobody is expecting you to study really hard... so you have to be self-controlled and you have to make your own study. So, I think the skills we learn now will benefit our learning in the University or in life.

The ability to face what is difficult, and to gain benefits from it, was reflected in another

student's statement, as well:

I think what matters the most is the procedure with which we are learning knowledge; it's a time that we're practicing ourselves. We are practicing our own [critical] thinking... This is the way to help us become a more mature person... the result of this is that the process is very important. Preparing for the NCEE, although this time is short, it's really tiresome, painful, and don't know where we will end up, but after experiencing the NCEE, it enhances us. Spiritually we get enhanced as well.

Another student referred to the process of preparing for the NCEE as providing a type of discipline for future benefit; "preparing for the NCEE beings the psychological habit of studying. This habit will really help me." The idea of future benefit implies a form of long-term thinking, as expressed in another's student statement:

I think the basic knowledge, the words in the book, we will hardly use in the future. But what we gain from that is what matters. I don't think what we're learning right now is interesting. It's kind of day-to-day work, I do it every day, and that's what I should be doing at this stage of my life. I do it only for a better life in the future because that is what works in China.

To this student, "what works in China" refers to the NCEE system of determining higher education and future opportunity through the NCEE, and although the tested or book knowledge will be forgotten, the benefits (and perhaps sense of duty) outweigh the uninteresting "day-to-day work."

5.3.6.1 The NCEE as Culmination of Effort

In addition to benefitting from the process of preparing for the NCEE, the NCEE also provides a goal for students, a way to "prove" their hard work:

I think in some way the NCEE is almost sacred because we only have one chance to prove to the teachers and to prove to everyone all of my 12 years of study, and how the 12 years have affected me, how great I am ... we only have one chance to prove to everyone, but we need to use all the knowledge that we have learned in 12 years to do this test. Yeah, we just have one chance.

Another student confessed that she had even thought of "not attending university at all; just taking the NCEE to prove the ability of my twelve years of study", while her classmate commented, "what are we learning for? What are we studying for? We need a place, a stage to perform what we have learned in the past 12 years." The idea of "showing" one's effort and abilities (and the need to show one's effort) was also referred to by the librarian at GZ:

The NCEE is a kind of opportunity to show off how brilliant or how good, how perfect you are and what kind of person... to let somebody know that you exist... it's a good way or a shortcut to showcase yourself, to make yourself known. I mean the NCEE is the most important test in China right now. So why not take it as a big chance, a good chance to let everybody know?

These statements place importance on the need for a culminative goal in Chinese education, and an assessment of that goal, provided by the NCEE. However, they also imply the goal is much more than mastery of the knowledge learned at school; on one hand, the process of preparing for the NCEE is a way of self-knowledge, discipline and self-mastery, on the other, the goal of the NCEE provides justification for the process, as a culmination and proof of one's effort. Perhaps more importantly, these statements suggest that unlike the knowledge gained through the NCEE system, the results of learning cannot be quantified, nor can they be tested.

Similar to students' ideas that the knowledge learned (reviewed) in school is not "important" or "useful" in future, when compared with the process, statements by participants who had taken the NCEE reflect similar ideas; many stated "forgetting" the knowledge they learned throughout school, as well as what was tested in the NCEE.

5.3.7 "Forgetting" Knowledge: Emphasis on the Process

For many participants, the knowledge learned during school and preparing for the NCEE was easily "forgotten;" what was remembered was the process of preparing for the examination, and the skills or characteristics developed through the educational process. As stated by a 10th grade teacher in reference to her own experience of the NCEE:

After all those years of education, I forgot nearly everything about what I learned, about my subjects, or whatever my teachers had said. But what is left is how to think about things – how to do things, how to deal with relationships, how to communicate with other people, how to do my work, how to learn something new that no one is going to teach me... But when I was in that process, I didn't notice that I was practicing that kind of ability... Knowledge is not really what you know now, or what you can remember forever.

The teacher's comments point to a *wider* concept of knowledge different from the "technical" knowledge of the classroom that relies on memorization, review, testing and scores. Yet, it is through such test-based education that these culminative skills and

abilities are gained. Besides internal skills of completing one's work and self-study, there is an external, social aspect as well, centering on relationships and communication with others. This was stressed by another teacher, who spoke about the usefulness of what is learned in high school:

Personally, I think some of the things I studied really hard for in high school, like math, are not useful. I was really poor in math, and my math teacher was really great...but the process helps, the process of learning it, the process of cooperating with my teacher, those kinds of things...(I) learned to be grateful. I still keep in touch with my math teacher now... The knowledge itself is not useful to me anymore. But the way of communicating with the teacher and classmates to solve a problem together, those kinds of things are helpful.

To both of these teachers, "useful" or "helpful" knowledge was not the curriculum taught in the classroom, but what was gained socially. As another teacher commented, "文明 (*wenming*) is something they get after education, they get that understanding." *Wenming* literally means "civilization", but refers also to a type of moral training or socialized behavior that enables "civilization" through an orderly society. The process of education, and the process of review for the NCEE, both impact the student, as suggested by a 12^{th} grade teacher: "I think that during the revision process… it's also a way for students to improve themselves, to make themselves more complete."

5.3.8 "Following the Teacher"

To teachers and administration, an essential part of the review process centers on "listening" or "following" one's teacher; as will be seen, the beliefs and norms underlying this traditional notion are much larger than the idea of teacher-led instruction. As in all hierarchical relationships of Confucianism, those that lead have as much (if not

more) responsibility as those that follow (Peng et al, 2012, Yang, 1989). As explained by a math teacher:

Basically, in China every teacher has a responsibility to teach their subject, so as a teacher, to pass knowledge.... Because there is a Chinese article⁶⁷, an ancient article about how to be a teacher. And what it means to be a teacher is to 传道⁶⁸ (literally "pass on the Way"). So I just pass knowledge actually, just like 传道... What you have learned, the knowledge, you need to tell students. Of course, you need to tell students how to learn. It's the same.

As explained by a 12th grade student, "I follow my teacher, and correct my mistakes. I move on step by step. Step by step." The importance of the teacher as a source correcting one's mistakes was reiterated by the principal during the 12th grade parent-teacher meeting, who admonished a student who kept repeating his erroneous ways:

This student isn't humble in his attitude towards learning; he stubbornly thinks his way is correct... If he changes now he still has time; even if he just listens, it doesn't matter if he doesn't understand. It's still better than not listening. The teacher has one way, he has another, which is the wrong way... These things show that our students' mental attitude is childish, they haven't owned up to what it means to be a 12th grade student. Therefore, I hope students can address the problems that teachers have pointed out in each of their subjects.

Here, the teacher is upheld as a superior source of knowledge, and the student should be "humble" in order to improve one's learning, as well as attitude. Interestingly, "listening" is esteemed more than "understanding." This idea is grounded in the fact that teachers have more knowledge and experience than students. As stated by the vice-principal,

⁶⁷ The article name is 师说 (On Teachers, or Discourse on Teachers) by Han Yu, a Tang dynasty scholar (late 700 CE)

⁶⁸ The character 道 (Way), is not the same as professional knowledge, but a "way" of learning. It is the same character in the book Tao Te Ching (道德请).

"Comparing our teachers to other schools, I believe there are two differences. One is their high level of knowledge and the other is that their relationships with students are very good... The teachers are very experienced, after all. So, listening to them is a good choice." This is especially important for the NCEE, according to a 10th grade teacher:

Some types of students are too optimistic; they review nothing. If a teacher suggests that you do something, you need to do it and concentrate. [You should] welcome your teacher's advice and help, be willing to get help, be modest. Some top students, I think they can go further if they just listen to some advice.

Thus, listening, or "following" the teacher, upholds the traditional hierarchy of the teacher/student relationship, so pronounced in Confucianism. Besides giving knowledge, teachers have a responsibility for the moral lives of their students, as well.

5.3.8.1 Moral Duty of Teachers

In addition to passing down knowledge and the correct way to learn, the job of teaching is not just related to curriculum. As stated by the same teacher who referred to Han Yu's "On Teachers" (师说):

Sometimes teachers have to console their students as well...There is a famous saying in China that every teacher is a moral counselor. Yes, you are a moral example. And every teacher is responsible to pay attention to each student. And also in China, it is common knowledge that teachers must pass the right values and moral values to students.

In particular, the homeroom (HR) teacher was tasked with this (as well as with the emotional care of students). This "special duty" of the HR teacher was explained by the moral teacher:

For moral values, it's best if the homeroom teacher teaches them, because the homeroom teacher knows the [personal] situation of each student in his or her class. If I tell students [whom I don't personally know] that a certain thing is good, no student will believe me. They will not trust me. But if a teacher who knows them says something, then students will think the teacher is trying to better their situation, and they will want to obey. This is how to motivate students, and I think the homeroom teacher is the best for this.

Just as students "follow" the teacher for knowledge, they should "follow" their teacher regarding correct behavior. According to the director, HR teachers know their students best; "the HR teacher is still the best for the job because they know the students very well. If we invite professional experts, they may know psychology, but they are not close to the students and don't know the students." As explained earlier, the majority of teachers at GZ stay with a particular Class from 10th to 12th grade. Thus, HR teachers will also take care of a class for three years in high school, creating an opportunity to know the "situation" of each student, which sometimes involves family issues:

I also help improve their relationship with their parents. There once was a girl in my class and she was so bitter with her mom because her mom worked too hard and ignored her. But she never talked with her mom. So, her mom noticed that she was disobedient and stubborn and easily angered. But she didn't know why. She thought her daughter was always angry, she was just [that way]. So I helped them by talking to them, and they were better after I met with them twice. (11th grade teacher)

As a 12th grade teacher explained, "There's long-term problems and also there are shortterm problems. But if you see problems with the student, like performance or behavior, you need to talk with them to find out what's wrong." To students, teachers, and parents, the HR teacher is responsible for addressing these problems, not parents; quite often, parents were perceived as contributing to student problems, as seen in a story related by the principal:

One day a girl [student] fought with her mother, and her mother hit her. I asked to see the mother, and she told me her daughter hadn't completed her homework. I asked her why, and the mother said because her daughter often played games on her cellphone for a long time, and she was not very studious or able to pay attention. So, she couldn't finish her homework. I asked the teacher to please help her daughter... Because education is not about criticizing... I want the students and the teachers to know – this is a school, education.

Thus, "following" the teacher not only addresses student responsibilities, but also the responsibility of teachers. For a teacher to correctly "pass the Way" requires a high amount of individual attention to each student; according to the principal and teachers at GZ, this is an essential part of education. These anecdotes and statements suggest that being a teacher still retains very traditional norms. In Chinese philosophy, there is a cosmological order of "Heaven, Earth, Emperor, Parents, and Teachers" (天地君亲师), regarding not only veneration for teachers, but the parental role and affection that teachers have, almost as a "second parent" (Wu, 2016). A 10th grade teacher stated her understanding of student-teacher relationships in the following way:

When I was a student, I did everything the teacher asked me to do; I didn't ask why. Now, students ask why they need to do something. You have to give them reasons, but and they don't accept your reasons...That's what I'm thinking about today, it's affection – the emotion when you like your students and your students like you. I think affection will probably be the most important thing in the future to persuade your students to do something, when asking them to do something.

Interestingly, this teacher referred to a disregard by students nowadays for the hierarchical relationship of teacher-student. Nonetheless, her story illustrates the mutual

care for students and her role as teacher, which is ultimately, in her words, "to get them to do the work they need to do."

5.3.9 The Importance of Character

As the process of review, memorization and "following" the teacher are important for mastering the knowledge tested on the NCEE, the process of education through schooling within an NCEE-based system develop aspects of "character." To participants, there is a distinct difference between the knowledge of the test and the knowledge of character, though both are developed through schooling. As stated by a 12th grade student, "think about the knowledge and the character [of a person] and they are really different. A man before education and a man after is really different, and I think that is what education does to a man," implying that education changes both behavior and thinking. This section investigates the many aspects and definitions of "character" education at GZ high school. As stated by the moral teacher:

Principal M believes that character education is the foundation for personal development and success. So, this needs to be part of our moral education and teaching. This is different for the primary and junior high school students; theirs is mainly about behavior habits. But in senior high, the students are more mature and older.

Although character education is stressed an important part of education at GZ^{69} , the notion of character education underlies the entire NCEE system, as well as the varied meanings attributed to education, especially its social role. Chinese education has long incorporated aspects of character or moral education, from the moral emphasis in Confucian texts (Elman, 2012) to "education for the masses" during Communism

⁶⁹ Desirable character traits such "diligence" and "initiative" (both English and Chinese) hang on printed banners around the school's auditorium.

(Pepper, 2000), to the modern system of the NCEE, which retains elements from all of these eras. Excepting the era of the Cultural Revolution, exams have been used as tools of governance by the Chinese government for thousands of years, particularly since they cultivate self-discipline (Bakken, 2000). As Bregnbaek mentions in her study of university students, an "inability to discipline one's self" (管不住他自己) has "catastrophic consequences, especially since passing the NCEE entails a great amount of discipline" (Bregnbaek, 2016, p. 6). However, as data from participants reveal, embedded in aspects of "character" and "the self" are their importance for society. The importance placed on character, much like the importance placed on a balanced *xintai*, illustrates that in Chinese education, the self (the individual) is malleable, and perhaps more importantly, is best trained through education⁷⁰. Thus, the purpose of education is not simply to be successful on the NCEE, but to train one's character as well.

5.3.9.1 Persistence

Because of the difficulty and hard work involved in testing and preparation for the NCEE, it is not surprising that many participants mentioned the importance of being persistent in one's study. This, however, was framed in terms of learning as momentary, again pointing to a "larger" purpose. As stated by a 10th grade parent:

This means having a high-quality character. Right now, education is the aim, but character will accompany her her whole life, so that's more important... Character is a positive attitude, such as working hard, and the ability to judge what is right from wrong. (Preparing for exams) is an exercise in character. Because they have so many exams, it is an exercise in resilience.

⁷⁰ As a friend of mine remarked during a discussion of these findings, "The west always tries to control nature, and the Chinese have always tried to control human nature."

A 10th grade teacher also voiced a similar opinion, stating that the NCEE "is not only about knowledge; it is also about character. Because the students practice every day, they must learn how to persist even when they see their classmates are doing better than them." Like the parent, this teacher also stressed the importance of a positive attitude, especially during difficult times. The importance of persistence is also seen in another statement by a 10th grade parent, indicating persistence is an important aspect of character; "The purpose of education is to make children become discerning, upright, with a responsible heart and an ability to pursue (goals)...it is a person with a sound character."

During a focus group, 12th grade students from Class One gave many examples of persistence:

S4: You come across a hard question in your homework, and you can't solve it. If you try to solve it over and over again, well then, your character might improve, because you've learned how to pursue something. And if you don't, [like] you just wait for the teacher to give you the answer, then you've failed. Solving it by yourself is a gradual process, and you can't just rush ahead.

S5: Education can teach you some very good character traits, when you do a very difficult question and you do it by yourself. You can also find the on the internet, or copy another's homework. Those are three different situations, and each will get you a "check" on your homework. But they are three different kinds of character. The person who did the question by himself, persists, but those that copy, or they find answers on the internet, I cannot say they are the same. You have to do your best in the NCEE and if you want to be in the best condition, you must make up your mind and strive to be the best.

According to students, who are in the process of being persistent in their goals, being persistent is a conscious decision; thus, the character trait of persistence is not, like *wenning*, something they gain after education, but during the process.

Despite the benefits learned through persistence in hard work and preparing for the NCEE, some 12th grade parents expressed discontentment with GZ for its emphasis on exams and the NCEE over character development; one commented, "schooling is mainly to learn reading, writing – book knowledge, others are downplayed." To a 12th grade parent, downplaying character development was due to the "score-focused" teaching at GZ:

Sometimes, students criticize the behavior of the school. For example, students think that the school is just seeking to be number one in X district, that the school is struggling for its own benefits. In respect of learning methods, it's true they help the students to achieve much higher, but in other aspects, I don't think the school is doing very well...

Other parents, however, believed that GZ's approach, and its teachers, were very responsible and caring, thus, being good role models for their child; "all the contact I've had with the teachers have all moved me... they are very responsible for teaching and for students, just like the teachers when I went to school. Nowadays, many teachers at this time do not teach very responsibly." Although all parents were positive about the learning achievements of their child at GZ, there was a difference in opinion on the benefits of this learning on the character of their child.

5.3.9.2 Social Aspects: Learning from and with Others

Although persistence and character growth through learning achievements occur at the individual level, character education more importantly occurs at the collective, or social level. A 10th grade parent expressed it in the following way, "Character is an important part of education, and the purpose of education is to promote good behavior in order to make people's lives easier and more affable toward one another." The importance of good relationships was underscored by a statement of a 10th grade teacher, who believed that the pressures of the NCEE helped to ultimately develop a good

relationship between teachers and students:

Because difficult things always give you pressure, so if you can handle pressure you can handle lots of things. Students and teachers, we fight against each other. It's like a war. When we finish and we succeed [in the NCEE], we forget the tears, pain, everything. We only know that we are happy. And what a relief.

Meanwhile, the director of teachers expressed the relationship between character and

education in the following way:

I want every student to be very positive about themselves, to supersede themselves, to be a better version of themselves. This process is not realized by yourself. You need help and support from other people. This kind of meaning is closer to collectivism. It does not mean to be selfish and harm others to realize your own goal.

According to the director, however, this type of reliance on others, and also care for

others (particularly parents), is becoming less, with detrimental effects on student

performance:

In the past the parents had high expectations for the children. And the teachers in the school also pushed the students forward. And the students themselves had a higher level of self-motivation. So, there were three strengths to pull the students upward. But now the strength, the push from both parents and students has decreased to a very feeble level. The only push is from the teachers and this gives us difficulties in administration.

To the director, an integral part of character in students has to do with fulfilling one's

obligations to others (obligations to parents and teachers), again emphasizing the

importance of relationships.

5.3.9.3 Cooperation and Compromise

To the principal, however, the NCEE and educational achievements have little to do with character, or "real education":

It's not that everyone should get into BeiDa or QingHua university...If you make everyone compete for the best places, then in the future, when they grow up, society will be in trouble. They may become a robber or a bad person... If you help them a little, they will not steal in the future. This is traditional Chinese thinking, traditional Chinese society, [where] everyone must cooperate. The NCEE is not important for this. In education, we must cooperate. The school is the same. If we want to help everyone, we make the teachers understand... the purpose of education is $(ren)^{71}$. It is not math or physics.

To the principal, competition for the top places in society creates a situation where people will value success over benevolence and cooperation, which will ultimately lead to stealing or "bad" behavior. To her, emphasizing cooperation among students is the path toward $(_ (ren):$

We pay a lot of attention to this – children must cooperate. We have activities that foster cooperation, as well as exercises where 3,4, or 5 students work together. For example, a lot of work, such as in physics and chemistry, use experiments and labs, and students must cooperate. We Chinese should especially be $(\angle \chi (renyi))$; this means a mutual society of helping each other, so our school spirit is the same. From when the students are very young, I tell them this. We all help children from when they are very young to have these traits.

The idea of cooperative learning was echoed by another teacher, who referred to the importance of discussion in groupwork for students; "School provides a platform for students to learn... they learn through groupwork, and discussion. During discussions,

⁷¹ In traditional Chinese culture, there are five characters that refer to the 5 constant virtues of Confucianism; ren 仁 means benevolence, yi 义 means righteousness (social law), li 礼 means ritual or code of ethics, zhi 智 means wisdom and ability to learn, and xin 信 means honesty

they will acquire skills to think, cooperate and communicate. Students regularly help one another."

Cooperative learning, however, is not only for students, but also teachers. According to the principal, this is exemplified is in the management of teachers, which requires teachers to cooperate and arrive at solutions together as a group:

From primary school on we have teaching groups...When they discuss problems, it is in a group. We don't want our teachers individually deciding how to teach something and what to teach: we want them to discuss this in a group. After this they make a teaching plan... One can have one's own opinion, but you should discuss this within a group....

Through discussion and compromise, it is hoped that teachers will not "individually" decide how to do something.

As one teacher explained about learning from others, "when people sit down and discuss, they have the experience of deciding something together. They will [each] have their opinions and supporting ideas, similar to every kind of negotiation, [but] people will compromise to reach the same good ending." To this teacher, discussion was an essential component of the teacher-student relationship. To a long-term teacher at the school, however, the role of discussion in education was something relatively new, and was reshaping not only student learning, but also the relationship between teachers and students:

For example, we've had classroom [teaching] for a long time in China. The teacher teaches the class, the students just listen. This method of ours can change. But in the west, it's not the same. The western way is to discuss. So right now, we can discuss things... it's not necessary that the process be the teacher lecturing and the students listen. We can use the western method.

Due to *suzhi* reforms that emphasize student-centered pedagogy, as well as recent emphasis on developing innovative skills in students, classroom discussion (between both students and teachers) is becoming more common. Although many scholars have addressed the social implications of character-formation through *suzhi* education (Jacka, 2009, Woronov, 2005), emphasis on *suzhi* reforms remains largely pedagogical at GZ.

5.3.9.4 A Lack of "Education"

Despite a focus on character-building at GZ, quite a few participants expressed the idea that education, even at GZ, was not doing enough to instill correct social behavior, which also belongs to aspects of character education. A 12th grade parent commented during an interview, "I don't think current society or the government has done anything to educate children in these aspects:"

First, I recognize that character education has a big influence on children. I want my children to make the right contributions for society, not only in China but also in any country. Another example is that in China, we want our kids to be polite. Actually, we tell our kid this, but we don't behave this way ourselves. For example, we will cross the road even when the signal is red. We drive aggressively, use our horns...

The idea of that proper social behavior was declining, even in small acts such as obeying traffic rules, was referred to by a few teachers. An 11th grade homeroom teacher, who had been with her class for six years (promoted yearly with them since 7th grade), complained that her students "don't say "hello" anymore, even when they see you, unless you say it, too." To this teacher, it was traditional that students should initiate, out of politeness. This teacher's reference was to how she had taught the same class for six years, and she "knew their character." Similar to the statement from a parent, a 12th grade teacher mentioned, "all the schools, even primary schools, lack this kind of education...

like [education about] basic behavior; for example, do not cut in line, do not shout in public, and always try and help women and children, these kind of things... I think school should provide this kind of education, besides academic teaching." Behaving badly in public carries a stigma of "uneducated," as explained by a 10th grade teacher:

When we drive, some people will follow the traffic rules, but lots of people will disobey. We look at people who disobey these rules as not having a "high education." This might not be true of everybody; but I think it's true of most of them. For example, some people who are walking ignore traffic lights when crossing the street... Education is not just about studying your subjects in school.

The idea that school, or education, should provide this training in this manner was expressed by parents, as well. As a 10th grade parent stated, "education can solve some problems and bad habits in children... Personally, I think that these are more important than knowledge, but if it can combine these two things, it will be more ideal." To the principal, a decline in the quality of social behavior had less to do with education and more to do with politics and history:

In China, (it is) different than America. Maybe in the last 50 years, political movements have broken people's hearts. The government wants to make to make a new society that is selfish, lazy... they destroyed families, everything for the political ideal...This has made the whole society, the social person selfish. No friendship, no family, nothing – only money, *guanxi*, so this will cause trouble.

To the principal, China's drive for modernity has caused traditional values to be replaced by "selfish" values centered on wealth and *guanxi*. It is unclear in her statements *which* "political movements" she is referring to; nonetheless, her perspective reflects, like parents and teachers, the belief that someone (the government) or something (school/education) is responsible to teach students correct behavior.

Based on these participant statements, views about "education" and how "educated" people act are much broader than academic study or achievement; rather, "education" involves knowledge about and adherence to basic social rules and norms.

5.3.10 Conclusion: The Persistence of the Individual

The idea that education is social in nature and thus, more than "knowledge," can be traced back to ancient Chinese philosophical and educational beliefs in Confucianism. Interestingly, so can the history of exams, as well as a belief that knowledge can be codified, objectified, and assessed. All of these elements exist today in Chinese education. Although education is no longer based on the moral texts of Confucianism, it is evident from participant statements that moral elements of Confucianism still exist, from the hierarchical relationship of students "following" the teacher, to the moral duty of teachers for the behavior and character development of their students. Individual strengths or character traits such as persistence help serve to justify the procedure of the NCEE and education in an NCEE-based system (particularly as these statements are articulated from the viewpoint of the successful). Meanwhile, "technologies" such as reviewing, memorization, and rote learning help to reinforce the system. These methods, however, are anything but modern, and again, harken back to traditional teaching methods. However, as parents' and teachers' statements illustrate, they do little to address character education in larger society, which is essentially, social education. The fact that character education is rooted in traditional relationships and philosophy indicates a type of "layering" of norms and beliefs towards teaching and education; the NCEE and modern schooling may be at the surface, but underneath lie traditional beliefs regarding proper attitudes toward learning, and proper behavior for society at large.

This layering affect is illustrated most strongly in the role and responsibilities of the teacher, which, as expressed in the words of one teacher, is "for each and every student." To "pass the Way" both in knowledge and moral behavior requires a high level of attention to every student, and the existence of this norm also suggests a belief still today that learning (both knowledge and character) is also individual – something that was exemplified in traditional *shi yuan* schools, and also criticized by educators who had to adopt the unified, collective teaching methods of the Soviets when universal education was created (Pepper, 2000). Although China no longer follows the Soviet model, its education system is universal. Thus, the conundrum of homeroom teachers, and even every educator in China; they are tasked with providing traditional, individualized education in a system of modern education where knowledge is codified by pre-defined goals, and uniform times for completion. In all this, there still exists a reliance on traditional pedagogy, and the persistence of character education.

5.4 On Fairness

As noted by scholars in Chinese education, one of the fundamental characteristics of education since China's Reform Era (post 1978) is the promotion of meritocracy in educational discourse, exemplified in the central role of the NCEE in determining higher education opportunity (Vickers & Zeng, 2017). The foundation of a meritocratic system lies in the idea of fairness, and as pointed out in the literature review, fairness is one of the main justifications for the NCEE system. It is both normative in that it defines how higher educational opportunity should be determined, as well as belief – participants in this case study expressed an overwhelming belief in the idea that the NCEE is fair. The responsibility for ensuring fairness, though, does not lie with teachers or schools, but with

the government. In light of scores and the issue of ranking, this section examines the notion of fairness through underlying issues of selection, equity, transparency, and necessity.

5.4.1 Selecting Talents among a Large Population

According to participants, fairness of the NCEE system is grounded in its function as a selection mechanism for higher education opportunity. The issue of selecting students was viewed as universal by one parent, who commented:

Even in developed countries, in America and Europe, these countries have a similar system to select talented people. They are only different from the NCEE in the way they select people and the content which they select them with. So currently in China, the NCEE is a fair and open way to choose students, so I hope it exists in the future. I think the NCEE is the fairest exam in China and it's necessary.

Despite the similarities, participants tended to describe the NCEE as unique to China's situation; the exceedingly large population and limited places in higher education combine to reinforce the selection function of the NCEE. One 11th grade teacher remarked: "The NCEE system for China is fair because China has the largest population in the world. So, it's a fairly equal way to choose good students to go to university." This was echoed by a 10th grade teacher; "China is too big... If we want fairness, we need this." In a focus group of 11th grade teachers, "China is maybe different from some other Western countries because we have a large population [other teachers nod in agreement]. So, there should be a way for the universities to choose students and the easier way – maybe, more fair way – to choose who is capable to go to university and learn a certain major is the NCEE." The "easier and fairer way" stated by the teacher refers to the use of one's NCEE score to determine higher education opportunity. As explained by a focus group with 12th grade students:

S1: I think this is because there are smaller populations in foreign countries, and they can judge students by other aspects. But in China, there are so many students and they all want to go to the great universities. And the universities don't have the chance, and they don't have the time, to get to know them [applicants] one by one.

S4: I think it [the NCEE] is the best thing they can do to keep fairness [in education]. Because being fair is not so easy, and in China, this system is relatively fair ... I think it does have some drawbacks, but until now it is still the best solution to the problem of fairness.

Besides a way of fair evaluation, it is the anonymity of the system that is important; as expressed by a 10th grade teacher, "everyone is treated the same. And you have no way to be recruited by the university if you haven't passed their qualification score." As the librarian of the school explained, "The door is narrow, the corridor is narrow, and the NCEE is a very general way through the door for everybody, if you want." The same "door for everybody" is not without its nuances; however. Even though massification of Chinese universities has occurred (Mok & Jiang, 2017), the rankings of 2nd and 3rd tier universities make them unattractive for students and parents; as one 10th grade parent explained, "China has limited educational resources… there is a lack of quality (top) universities." Due to the difficulty of being admitted into a 985 or 211 university, the "door" of opportunity is getting narrower.

Nonetheless, issues of equal opportunity around the NCEE persist. As explained by a 12th grade student, "I think [what] is most important about the NCEE is that the NCEE can give everyone an equal chance to compete and to prove themselves." The issue of equal treatment was further explored by an 11th grade parent, who tied this issue to the former system of the Imperial Exam:

I think human rights and the demands for equality are the most important things... the NCEE system is the most equal system or method that we have found. Just like the Imperial exam in the old times. We threw away the Imperial exam because we moved into a new era or time. We did not throw the demand for equality away or the belief [of] equality.

All of these comments underscore participants' beliefs that the NCEE is a fair system for selecting higher educational opportunity – these beliefs are grounded in necessity (large population and the need to control the "door" of opportunity), the objectivity and the anonymity of scores, and the need to provide equal opportunity for everyone. However, upon deeper scrutiny, data also reveal a few cracks in the system.

5.4.2 Not Enough: The Issue of Shadow Education

References to shadow education are common in participant data. Despite the "ban" on shadow education by the principal, all parents interviewed enrolled their child in extra classes and/or tutoring. To parents, shadow education is a way to gain advantage in an education system that is geared not toward individuals, but toward everyone. Alongside ideas of providing "fair" or equal opportunity through the NCEE exist ideas that shadow education is a way to advantage one's self within such a system. Participant data regarding shadow education also brings further nuance to understanding the NCEE system, as well as cultural attitudes toward teaching and knowledge. In the words of a 10th grade parent:

My daughter has been attending extra classes since primary school. I think these classes are a really good supplement for formal education... every student is different in every subject; some can be sensitive and smart in certain subjects. The

teachers in the school cannot satisfy their eagerness for knowledge. A student wants broader and deeper knowledge, but the teacher has to look after all the students' needs, so there are certain groups of students they cannot satisfy. On the other hand, some students are slower in understanding things, and the way the teacher teaches may be a bit difficult for them. So, they need tutoring in this way.

Thus, shadow education is not only about gaining advantage, but also about keeping up. It is a necessity due to the individualized nature of learning, something the school cannot meet because teachers have to "look after all the students' needs", implying a sort of "middling" that occurs in Chinese classrooms, where "eager" students are left out, along with those "slower" to understand. This view was supported by the librarian of the school, who also has a son at GZ:

They [the students at GZ] go for one-to-one teaching. One-to-one teaching is the most efficient. It is efficient because one teacher is only responsible for one student, so they form some kind of bond. They can understand and get used to each other's way or each other's character. So, the teacher can find the students weak points quickly and the student can learn from the teacher, without any interference.

The idea of individual care in education was also referred to by the director of

teachers, who described issues of learning as "conflict with parents and students":

The parents will have demands from the school to provide a kind of service that is parallel with their child's development. So, this means that they often seek help from outside the school. It's not like before, when parents would seek help from the school to solve their problems. Now, if parents have expectations for their child or if their child needs something specific, they demand that the school give special lessons [shadow education] to their child.

It's important to note that a type of shadow education used to be provided by GZ as

"extra classes," in which they charged a small fee to parents. However, government

regulations in Beijing have not allowed schools to engage in this practice for several vears. In regard to the types of services asked for, the director responded:

For example, students may choose to study abroad, and they will focus more on the SAT and the TOEFL. We have about 10 students every year who go abroad out of our 200 seniors, and these do not take part in the regular classes at our school. Also, if a student wants to go the drawing or painting (arts) route, they cannot regularly attend classes in the school, and they may seek tutoring from outside the school.

According to the director, the option of studying overseas has prompted parents to ask for extra classes for tests such as the TOEFL or SAT. In addition, students who wish to apply to art colleges or universities must seek extra help outside of GZ with their application material. Thus, besides the benefits of an individualized relationship and learning from shadow education, there is shadow education to meet the diversity of options available to those students at GZ who are able to go overseas.

To most parents, however, shadow education offers an advantage with the NCEE, as stated by a 10th grade parent, "After looking at some materials [NCEE content], I feel that China's NCEE has increased in difficulty and [there is more] flexibility in answers; it [NCEE changes] is a hardship for both teachers and students. It requires more extracurricular knowledge to support it." For one 12th grade parent, shadow education is almost taken-for-granted, a sort of normative obligation based on one's economic and social status:

My parents did not have high school diplomas or receive higher education, so I did not get any support with their tutoring or learning. As students from rural areas, we did not have any opportunity to attend extra training. Also, our parents had no idea about these things, and no money. So, most of the support [from them] was emotional encouragement.

According to this parent, his daughter attends extra classes for the NCEE once a week for three hours, at 300 RMB (roughly \$50) an hour, and these lessons started in 12th grade. As stated by a teacher at GZ:

Actually, the principal forbids them from taking extra lessons, but most of them are still take lessons because they think "you are taking, so I should take it too." It feels unsafe for them, maybe because their peers might know more. So more and more top students now are taking these lessons... [however] they don't want people to know that they're taking extra lessons in 12th grade.

This teacher's comment reflects an increased sense of competition among students; however, there is also a perceived need for students to go beyond the content, or knowledge, taught at school, similar to earlier statements by parents. In reference to a top student in her class, "the thing was, when I taught a lesson, the student had already learned the material like five times; that's why she was number one." To this teacher, parents are actively engaged, largely through social media, in sharing information and comparing the quality of teachers who work in shadow education. Although parents engage in it, there is a stigma about teaching shadow education if one is a teacher. As commented by one 12th grade parent, "Nowadays, many teachers do not teach very responsibly. For example, they only care about making money and will engage in shadow education. The teachers at GZ are not like this."

5.4.3 The Relative Nature of Fairness: An Urban Bias

Among participants, statements of "pretty fair", or "in most cases" were commonplace, showing an awareness of an 'idealized' notion of fairness. As seen in the statement by a 12th grade student, the system has "some drawbacks" and "being fair is not so easy." This was furthered by another student, who explained, "it's the only way to include all people, like those from the city and from the countryside, and all of them have an equal chance... A mostly equal chance."

"Mostly equal" refers to the issue of *hukou* (residence), educational resources, and the yearly quotas for universities. Since the quotas for city residents are higher, the cut off score (ACLS) to enter universities (even top ones), is lower. As one teacher who grew up with an urban hukou from Beijing remarked, "Because Beijing is the capital city, we have some advantages. We have close to 60 universities. So, the scores can be much lower. There isn't as much pressure as other places such as Hunan, Hubei, Shanxi, Shandong... these places the pressure is so much more." To this teacher, pressure in rural areas is magnified by the quota system, where Beijing residents can score less than rural residents to attend Beijing universities (see section , Chapter 4). One 12th grade student spoke about this issue concerning a friend who had to return to his hometown for high school:

I had a friend and we studied in the same primary School. But when he was 15, he went to his hometown in Shandong Province. That's very different from Beijing because in his school, there are things like school bullying, and the teachers, even though they're qualified, [they] are not so well trained as Beijing teachers. He had a kind of shock when he returned... He'll have to score higher than Beijing students. If you give the same test paper to Shandong students and Beijing students, the Shandong students always get the higher score because they have to do *more* work than Beijing students. It [the Shandong NCEE] is harder. I think it is upsetting, but we don't have a better way. There are not such good educational resources in Shandong, and, Beijing has better education. That's what we take for granted.

Besides the fact that students from rural areas must score higher to gain entrance into top universities, there is also the difference in testing content. Beijing has its own NCEE that is known to be less difficult than the standard national version; as stated by a 10th grade teacher, "for Beijing[ers], the NCEE exams are not very difficult; it only measures a

student's basic ability in all subjects, so the exams are not too tough for them, compared to other provinces."

5.4.4. "Other" Types of Knowledge

One teacher, an urban resident who took the NCEE in 1990, perceived the issue of urban quotas as a lack of alternatives: "They [government] cannot change the system; in my opinion, the system is the most reasonable system for China. There is a lot of focus and attention paid to educational equality, and I think it is an efficient way." Another teacher, who took the NCEE as a rural resident in 2002, recounted her experience, expressing a taken-for-grantedness regarding the urban bias of system, perpetuated by a belief among rural teachers in the NCEE as a way to change one's future:

I didn't think about fairness or not – I never thought it was unfair; I thought there must be a reason for that [rural residents having to score higher]. Students are different in different places. The students from Beijing, they know more than people from different [rural] places... For us, we were taught that the NCEE decides your future, your destiny. The teachers thought this, so we thought this way.

This teacher gained entrance into one of the top universities in China; her many years of teaching in an urban school with urban resources, though, had impacted her earlier notions about the fairness of the system:

As a teacher, I really don't like the NCEE system because of the different levels between urban and rural areas. Equality and fairness are different. I once saw two pictures; one person is bigger than the other, and one is short, so you give him a chair. This is called equal.... Right now, their base [urban] is much higher than ours [rural].

The "taken for granted" urban bias in both resources and quotas was also ironically expressed by a 12th grade student during a focus group, who remarked, "I think it's fair

because we are Beijingers", while another remarked that there was little choice for rural residents; "there are too many people, and in those [rural] areas, this is the only way for status." Unlike their teachers or parents, students were much more prone to critique the inequality in the system. However, to some, the inequality is due to a disparity of resources *outside* of education:

Most people in Shandong⁷² don't think it is fair. But to be fair, some of their abilities are not as good as ours. You can't just judge a person by their grades. Those in Beijing are different than those from poor[er] areas because we have more ways to get to know various things, like more kinds of knowledge. But some of them [non-Beijingers], to get a higher score, they have to work harder than us, so they don't really get to know about new stuff. All they know is what is in the books. And when they go to university, maybe their social skills and other skills are not as good as those who come from the big cities.

Although such bias warrants criticism, particularly as the student has an urban *hukou* and therefore privileged status, it's important to note the earlier comments by a teacher from a rural area. In both cases, an urban bias is largely taken for granted.

The difference in getting to know "various kinds of knowledge" was not only

about access to knowledge, but about the difference in education levels between rural and

urban parents. As stated by a 10th grade teacher:

I think educated parents will put a lot of effort into giving their child education from an early age onwards, to help them figure out what they want to become in the future. I think they can also take them abroad and broaden their horizons. Certainly, they will have a different view than those from the countryside. I think the urban areas have a broader view.

⁷² Shandong province is known throughout China for having high scores on the NCEE; hence, the example used. Nonetheless, the quota system allocates very few places for those from Shandong to enter into top universities in urban areas.

All of these statements contradict the objective and fair nature of the NCEE; the difference in abilities such as social skills or knowledge outside of "book" knowledge, as well as the broadening of horizons through overseas travel, are not tested or scored in the NCEE. Rather, they are justifications for an urban bias in quotas.

5.4.4.1 Holding on to Privilege: An Urban View

To one parent, a resident of Beijing, the urban bias in quotas (an issue she admitted not giving much thought to before) did not automatically translate to an easier opportunity for her son:

Being a person from Beijing is very lucky.... My child is already at the top of the country; he does not need to climb up to the top because he's already on top. But he has to secure his position, because there are a lot of children climbing up to seize the position. The area at the top is smaller than the area at the bottom. It's a hard thing for Beijing people to hold, to guard this [top] position. And people say that it's easy for a child in Beijing to get a good position, yeah that is true, but it's very hard for them to be secure in that position. Everybody has different problems, different struggles to go through.

To this parent, the opportunities provided by the NCEE system to rural residents had created a situation of urban residents having "to guard" their top position, implying a fierceness and pressure in competition on par with rural residents, regardless of disparity in educational resources. Thus, those from Beijing, despite their privileges, still have problems and struggles.

In addition to pressure "from below", quite a few participants spoke of pressure "from above" as well, indicating a growing disparity among urban residents, as well. According to a 10th grade teacher, the NCEE was "the only fair way to compete" in globalized times: You know, rich people, maybe they can just go abroad to get a degree. Overseas degrees seem more valuable than the ones here in China. But for ordinary people, those who are not from a higher social status or a more privileged family, or if they want to get a good education here in college or university without being talented in sports or art⁷³, then this [the NCEE] is the only way to go to college. To me the score seems really fair and real. It's still important, for the middle class.

The reference to overseas degrees as "more valuable" than Chinese ones relates back to the issue of "sea turtles" discussed in the literature review, where "sea turtles" have an advantage in finding employment. For the middle class, the NCEE is the only fair way to compete (refer to section 1.3.5, Chapter 1). The issue of "the middle class" was brought up by a few parents. One parent remarked, "The NCEE will still be the only alternative for average families to have an opportunity to improve. Also, because of the complexity of Chinese society, methods such as independent recruitment⁷⁴ are not fair for average families." Another parent stated, "right now, the NCEE is the only way for average families in China to improve their social status; I do not see any other opportunities for these [types of] families to enhance their status." Social status and methods of independent recruitment refer to privileges of wealth and forms of social capital that the middle class do not have, particularly those from rural backgrounds. As explained by one participant, "if you transfer from one place to another, you are just lost for a bit of time, because you don't have any guanxi⁷⁵.... A certain background has a set of certain guanxi; it's a relation, a link." Hence, without these "links", the NCEE is "the only fair way" for

⁷³ Students attending sports or arts universities, as well as those on sports or arts scholarships, do not have to take the NCEE. They must instead show competence in other areas.

⁷⁴ "Independent recruitment" is one way of entering top universities (allocated at 5%) where a student can attend a top university based on recommendations. This system has been criticized for being prone to connections and bribes.

⁷⁵ To many participants, *guanxi* does not have the negative connotation that it does in the west; rather it refers to relationships or to a relationship established through trade.

the middle class. Reference to issues of wealth and social capital signify what the "fairness" of the NCEE is all about. In order to understand "fairness", it's necessary to look into what "fairness" is contrasted with.

5.4.5 Corruption and Lack of Transparency

Discussions with participants on the fairness of the NCEE brought to light issues of corruption, cheating, and lack of transparency. Juxtaposing fairness with these issues allows for a greater understanding of beliefs that uphold the NCEE, as well as the reason why fairness is so important.

As stated by the principal of the school, "The NCEE is the fairest of all tests. You know in China, there's a lot of ... [wrings her hands to indicate corruption] but this way, there is no name, only the score." The issue of possible corruption points to an underlying belief that left to other factors besides the NCEE, higher education opportunity would be determined by wealth and connections. The fact that social relationships or guanxi have an obligatory factor of reciprocity would, in the principal's view, enable corruption to enter too easily into the selection process. This was also referred to earlier, in a parent's statement about independent selection not being an option for the middle class. Such perspectives suggest that the "fairness" of the NCEE lies heavily in its ability to dispel inequality of social capital, and to a lesser extent, economic wealth, at least among the urban class. Nonetheless, the importance of guanxi and social connections still manage to exist in the current system. As expressed by an 11th grade teacher, "because of their family background, maybe they [families] have some connections. And their children will have a better future even though they don't do well in school. They can arrange it, a job or even a university."

To a 10th grade teacher, an important aspect of "fairness" with the NCEE was related to the high level of security and effort surrounding the confidentiality of NCEE content; these issues do not concern the school, as this responsibility lies with the government: "In the past, we had the leaking of the NCEE paper, but this issue was solved. Who solved it? Maybe the government. Soldiers are used as guards. It is important to make it fair. [For example] we can't take electronic devices [holds up cellphone] if you are supervisor⁷⁶...They make it fair this way." As pointed out in the literature review, there is much emphasis put on an *outward* appearance of fairness.

Meanwhile, the regulation of *internal* fairness is through the transparency of the NCEE system and the NCEE as a selection mechanism for higher education. As stated by one 10th grade parent, "that's why it's good; it's very open. There's no trick, it's transparent and happening in broad daylight. Unlawful things cannot hide. The NCEE is very open from when it began until now, and everyone knows the rules of the operation." Similarly, a 12th grade parent remarked, "It [the NCEE] is pretty fair, because other avenues can be controlled [manipulated] by people; it's possible to walk through the back door… The NCEE is still very important for every person in China; some don't have any other opportunity." When asked to expand what "pretty fair" meant, the parent brought up her own experience studying for the NCEE:

In my school, students were only compared by their scores... At that time, we were judged totally by marks, and there were students with high marks but low moral standards [that] could enter university. I was really worried, thinking that if the government was to be handed to these kinds of people, it would be an adverse situation. People would get high marks by cheating or by tricks. This was a situation a few years ago.

⁷⁶ The fact that electronic devices are not allowed into NCEE test centers, even by supervisors, is supposed to ensure that cheating cannot occur.

According to this parent, as well as other stakeholders, the early years of the NCEE (after the Cultural Revolution) were marked by cheating and bribes for test content; the situation nowadays, though, is much better. Nonetheless, issues of corruption through the use of connections and wealth to enter higher education persist, and data illustrate these concerns are highly relevant to stakeholders.

5.4.6 Conclusion: Constituting "Fairness"

The effects of corruption and cheating in the NCEE extend well beyond the test itself, into society at large. As pointed out in the literature review, numerous studies centered on quotas weighted against rural residents and disparity of educational resources have done little to counteract the strong belief of the NCEE as a meritocratic tool. In a similar vein, most likely as meritocracy is defined by effort, advantaged elements like shadow education seem perfectly "fair", as they represent harder work and effort. Findings from data do reveal understandings of inequality among participants though, resulting in statements like "mostly fair" or "somewhat equal."

However, data also suggest that underlying "fairness" is a belief in a corrupt society, where higher education opportunity must be regulated and controlled if it is to escape the influence of wealth and *guanxi*. In this light, fairness has little to do with recognized advantage, whether economic, social, or by *hukou*. Thus, having to "hold on" to urban privilege and competing with overseas "sea turtles" are not seen as "unfair" by participants. Rather, the "fairness" of the NCEE lies in its ability to regulate and control higher education opportunity through transparency and openness, and the NCEE becomes a countermeasure to the state of Chinese society.

5.5 Differences Over Time

The history of the NCEE is one marked by numerous changes and reforms; alongside these changes, beliefs, values and attitudes towards the NCEE have changed as well. In this case study of GZ, participants included students, parents, teachers, and administrators, all of whom represent a variety of ages, as well as a variety of experiences with the NCEE. Although participants represent a select group of people, it is possible to see trends and differences in the importance and role of the NCEE that reflect wider economic and social changes. As stated by a 10th grade parent: "The NCEE means different things for different people in this society." This section explores these differences, and highlights how stakeholder perceptions and beliefs toward the NCEE have changed over time.

5.5.1 Material differences

A large number of parents, when speaking of their experiences with the NCEE, stressed a significant difference between their material conditions and their child's, underscoring the important role that environment and background play towards influencing success on the NCEE. As stated in Chapter 3, section 3.2, the majority of parents interviewed came from rural areas and had managed to secure urban residency either through the NCEE, or job opportunities after universities. Their stories illustrate the enormous contrast in material conditions that characterized rural China just twenty or thirty years ago, the challenges faced to achieve an opportunity for higher education under these circumstances, and the importance they place on providing the best "environment" for their son or daughter. As described by a mother of a 12th grade student about her study at school in the countryside, "the walls of the classroom were cracked,

and when we were sitting in the classroom, we were able to feel the wind blowing in. The skin on my hands and face got infected because of the cold. I also had to write on straw paper that was very coarse, which we burned to keep warm." Meanwhile, a father of a 12th grade student recalled the difference between his son's situation and his own:

The difference is really big. My son's living condition is very good. We take him to school and pick him up. And the classroom environment is also very clean and bright. It has heat and air conditioning. The equipment and the teachers are excellent. There's no way to compare his with mine... As I remember, I had to get up early, at 5:30 to do self- study, and the whole day was filled with classes until 9:30 at night. And even after I had returned back to my dormitory, I had to light a candle to continue with my studies.

Another father, who took the exam in the 1980's, also described a profound difference between his situation and his son's, stressing the importance role of a "good family environment" and "situation." To this father, the desire to improve both his and his families' rural life was an important motivator for taking the NCEE:

I was living in the countryside of Beijing, which is now the 8th district of Beijing⁷⁷. When I took the NCEE, it was for two reasons: one was for the family, and the other was for myself personally – to get out of the difficult situation that my family was in. This situation had an impact. At that time, it was very difficult and very tiring. But my son's situation is really different. He is from a relatively premium, good family environment; I think this is the most distinctive difference. I even needed to do farm work from the age of 10, so this perspective, this different living experience, gives a different motivation for the NCEE.

This perspective, of improving one's future life and opportunities through the NCEE was mentioned by another parent, a mother of a 12th grade student; "I was born in a rural area, and the educational resources were very limited. The only way to have a bright future

⁷⁷ At that time, the 8th district was a rural area, so the father had a rural *hukou*.

was to study hard and get into college or university. It's not like my son now, who has very good educational resources and teachers."

Besides limited educational resources in the countryside, parents placed importance on providing a "good family environment:"

My situation with my daughter's was not the same. At my house it was very disordered. So, it didn't give me a very good or stable mentality/state of mind. So right now, I make sure that my daughter is in a very good family environment and has a good state of mind to face the NCEE.

This parent did not get into university, but attended a type of junior (2 year) college. In order to ensure that her daughter has a good family environment, this parent explained:

It includes things like reading, writing calligraphy to help my daughter lower her stress. And sometimes we will discuss current events or popular events in society. It also involves caring about her from the bottom of my heart. In terms of taking care of her physically, it means a balanced diet, it means having enough protein or meat in the dinners.

From the mother's account, her daughter is under a lot of pressure to achieve well on exams; however, the pressure and hard work her daughter faces now will ensure a better future – "even though my daughter is under great pressure and is really tired, I think it's worth it." Because she is unable to help her daughter academically, she provides emotional and physical support for her.

5.5.2 "Hands Off" Parenting

Perhaps because so many of the parents in the participant sample came from impoverished backgrounds, the importance of material conditions was forefront. To quite a few parents, supporting their child and providing a "good environment" for them involved lowering their amount of stress and pressure, and ensuring they lived in a good "family environment." As one 10th grade father explained, "we create a better learning environment for him, and keep him company." Except for one couple, who admitted to pressuring their daughter (12th grade) to enter a "top university" as they came from "average" backgrounds, and could not, like other parents, afford shadow education, most parents seemed to take a more "hands off" approach to their child's study at school. This change in pressure and motivation on students from parents was frequently referred to by teachers. As stated by an older teacher at GZ:

I think the parents who are born in the 1970's or after are different. Because before them, parents were just like traditional parents. They helped their kids be straight, upright, honest and good at doing everything. But after that generation... they are more like, "I'll give more room to my kids; they can choose what they want to believe." They discipline their children less than their own parents. Many parents after that time [1970's], they believe in managing their child without doing too much. They withdraw their influence...

The lack of parental influence and control was also mentioned by an 11th grade teacher who had taught for several years:

Parents, they have nothing to do with their child's behavior. If a student doesn't want to do something, the parents just let it go. They do nothing. Or a student sometimes copies another student's work, and even though you talk to parents about it, the parents say there's nothing to about the situation, that there are no options for improvement. They just LET IT GO [emphasis]. They count on the teachers to make the changes.

According to the director, lessening parental involvement and lower expectations has

resulted in a decrease in motivation, again laying more pressure on teachers.

The level of self-motivation among students when I first entered my career [20 years ago] versus now was much higher. The students now are not the same as the graduates before... Maybe it's connected or influenced by their parents. In the past, parents had higher expectations for their children, so their children would

overcome difficulties and supersede themselves. Now, parents are afraid that their child may be too tired, and they don't want to burden them, so their expectations are lower as well.

To these participants, there has been a substantial decrease in "traditional" forms of parenting associated with education. Modern parents, or as one teacher expressed "those born after the 1970's", are less involved, but also more "hands off" towards managing their children. More "hands off" also suggests a more equal relationship between parents and students (contrary to Confucian hierarchy); as one parent explained, "my daughter manages her homework by herself." Lower expectations and not wishing to "burden" or "tire" their child illustrate a shift in parental thinking and involvement in education. As explained by one parent regarding her own experience with education:

Actually, my father only knew how to read a few words and my mother is totally illiterate. But my mom knew that getting into University or college through hard study was the only opportunity to leave our rural area, so no matter how bad the conditions were with my family, my mom told me to never give up studying. As for many of my peers, mostly girls, they did finish the end of primary school, or some the end of junior high. Boys continued their education further. But my parents were not like other parents, and they strongly supported my education.

As most parents interviewed came from rural backgrounds, lower expectations may be due to the fact that, for students at GZ who already have urban residency, status and resources, the need to improve one's situation through education is no longer so dire. To the school, however, this lack of need (to improve), has resulted in less motivation or "push" from parents. Older teachers, however, also attributed parental attitudes to the changing nature of the Chinese family due to the One-child policy.

5.5.2.1 The Changing Family

A 12th grade teacher expressed the effects of being an only child as a decrease in the strength and resilience of students, which impacts her teaching:

Nowadays, our students are only one child for one family. They get all kinds of attention... sometimes I think they are even more sensitive, more vulnerable. Teachers should be really careful when we try to help them. We cannot be too strict. When these students make a mistake, the teachers can only talk with them [about it]. So sometimes as a teacher I feel frustrated, when I see that students have some bad habits. I cannot do anything.

Meanwhile, another 11th grade teacher attributed not being able to change a student's "bad habit" to parental upbringing; "The parents are happy to see good results, but if their child cannot do so well, it's okay for them because they just indulge them." Interestingly, the situation of "indulging" to one teacher was not solely attributed to parental behavior, but the result of social changes brought about by the One-child policy:

Teachers always complain about students getting worse and worse; it's worse than the previous year. And I think it's more the social surroundings, for example, society may have some bad influence on them. According to the one child policy, they can only have one child, and that's the one really loved in the family. But parents also spoil them, so I don't think that these students really try their best to develop all their abilities or study habits.

To some teachers, the social changes of a "precious child" have transferred to a difference in teaching approaches, too. Compared to their days as a students, teachers now are less strict toward behavioral problems:

When I was young, when I went to primary school... I'm so old, so it's totally different [laughter]. It's a different generation. Because in our generation, there was no One-child policy. So the teachers could shout at us, even beat us, but nowadays, okay, only one child for one family. They get all kinds of attention.

To these teachers (all of whom are much older), the impact of the One-child policy has resulted in a decrease in teacher influence on students, largely through a lack of support from parents, who "spoil" or "indulge" their child. This, of course, was not ubiquitous, particularly among teachers who were born after the One-child policy. As expressed by an 11th grade teacher, "I was the only child. For my parents the NCEE was a kind of hope, but for me, even hope was a kind of pressure."

Meanwhile, younger teachers often mentioned social problems of divorce or bad family relationships that have a negative effect on student motivation. However, a range of teachers expressed the importance of socio-economic changes, with the result that students nowadays have more options; for some students, the NCEE is no longer the only road to future opportunity.

5.5.3 The Changing Environment

5.5.3.1 More Options

To participants who had taken NCEE, all expressed a belief that the importance and role of the NCEE had changed; in the past, the NCEE was a once-in-a-lifetime chance to enter higher education. A 10th grade teacher who took the NCEE in the 1990's explained, "when I was a student, I only knew that I had to take it. And I didn't think about whether it was good or not. I thought it was a necessity; it was a must for us Chinese," referring to the unquestioned role of the NCEE in education. This was also expressed by a parent; "This topic is really big. For my generation it was the only way to select talent for the university and the country... According to traditional thinking, many parents think it is an essential part of a student's education." The idea of "traditional

thinking", the NCEE (and education) as a sole route for social mobility was emphasized by the director, who stated, "In the past students had to focus totally onto the NCEE, because that was the only way to change one's destiny." To the director, though, the situation nowadays has changed; "but now social conditions have improved ... students may think that if they are good at something [besides school], then they don't need to do the NCEE." The idea of being good at something, or following one's interest over studying for the NCEE, was expressed by a younger 11th grade teacher:

[It is] because students have more options for jobs. Maybe they don't need university; they just need some skills. Because people make money in different ways now, not only just from working. They can have a lifestyle [where they stay] at home and make a lot of money, like playing computer games and making a lot of money. Even my boyfriend dreams of playing computer games and making a lot of money. Maybe that's the trend?

In addition to more options, teachers also expressed the opinion that getting into university is easier, due to the fact that there are more universities, and thus, a higher admission rate.

I think it's getting easier for students to get a university degree; it's not difficult. Because 20 years ago, even 10 years ago, getting into a good university was kind of difficult. But nowadays, it's easier. It's still very difficult to get into a top university like Qinghua University. But for other universities, you don't have to work really hard.

The idea of not having to work "really hard" was also commented on by parents. A father of a 12th grade student spoke of his experience taking the Exam in the early '90's: "Later, I checked what happened in 1992. I found that in 1992, there was less than one million⁷⁸

⁷⁸ Approximately 5 million students enter university or colleges through the NCEE (MOE website, 2018).

who could pass the test. At that time, maybe there were not a lot of universities, but right now, they have a lot of universities." This was echoed by the student's mother; "Yeah, more and more people, more students can enter university to get an education... In 1990, at that time the scores were worth more. The chances were much harder."

5.5.3.2 More Wealth

Besides more options for work and easier chances for higher education, participants also explained a difference in attitude towards the NCEE due to wealth, which also decreases the need for the NCEE. A 10th grade teacher added that since some students plan to go to work in their parents' companies, they only needed to show they had a college degree – the degree itself and where it came from did not matter⁷⁹. The issue of future work in a parent's company was also expressed by another teacher, in reference to an assignment: "Once I asked them [students] to write about their future major or jobs, and a lot of them wrote they wanted to join their parents' company; it would be easy [for them] because their parents are managers or owners, and they [students] wouldn't need to learn too much."

According to an 11th grade teacher, wealth has led to a decrease in motivation for students:

They [students] are supposed to work harder to get a better result... But they don't care about results actually, because their family is in a really good situation. If they have enough money, they don't care about the results. So whatever university they can get into, it doesn't matter. The parents have actually guaranteed a bright future for their child. They have money, and they have money for their children's children. Or they can guarantee them a good job, as long as they have a kind of certificate.

⁷⁹ In China, there are private universities where students don't need to take the NCEE to enter, and a low academic achievement doesn't affect graduating with a degree.

The relationship between higher socio-economic wealth and the idea of not caring about one's performance on the NCEE was also stated by the librarian, who referred to the ability of rich parents to give future opportunities to their child; "maybe some of them, because of their family background, they have some connections. And their children will have a better future even though they don't do well in school. They can arrange it."

5.5.3.3 Going Overseas

The fact that greater wealth has created other routes for higher education was verified by a teacher who took the NCEE in 2009; for him, the issue of wealth and his family's financial situation put a lot of pressure on him to achieve a high score on the Exam. Unlike his students, his family wasn't able to afford an overseas education:

It was a very heavy task (the NCEE). Because people like me, we don't have a really rich family and we cannot afford to go abroad, like to go to America. But now, my students are richer, and a lot of their families can afford sending their children abroad. So, if they don't succeed in the NCEE, they can go abroad, and they can go to a university that's better than what they would have achieved in China. A lot of students don't have the heavy pressure of the NCEE compared to what I had. It's true that some students don't have any money. But it's true there are more families that have money compared to my generation.

According to this teacher roughly five to eight students in his class (out of 35) go abroad every year. This number was contradicted by an earlier conversation with the principal and administration, who claim only 15 to 20 students out of the entire grade go abroad each year⁸⁰. When I asked the teacher about this discrepancy, he look embarrassed and said, "well, whatever the principal says is always right." Other participants reported that "a few" students go overseas.

⁸⁰ The lower number stated by administrators may be due to the fact that the principal actively tries to discourage students from going overseas.

Regardless of the number of students, the issue of going overseas within the last ten years and the growth of wealth has impacted views towards the NCEE. According to the principal, "Students have no interest [in the NCEE] if there is money. There is no motivation for the student if they can go abroad." Going overseas, even for a family trip, has also impacted how students approach classwork. As explained by a 10th grade English teacher in regard to her students' work ethic: "nowadays, students' financial situations are better. A lot of families will take their child abroad for traveling. And these students think they know a lot, because they have seen a lot of things. So, they think they don't have to pay attention to what we do in class."

To some teachers, however, the issue of going abroad did not figure too large for GZ students and their families; according to an 11th grade teacher in math:

To a certain extent, there are more possibilities or more options for students in China. The NCEE is not the only way out. It's much better than it was a decade ago. For the students in our school, the majority of them take the college entrance exam. Some go abroad. But that's not the majority. For those who stay, the college entrance exam is the only way. Maybe this will change in the future, but I don't think it'll happen in the near future.

Although the NCEE is not the "only way out," it is "the only way" for "those who stay."

5.5.3.4 A Compromise: GZ's approach to overseas higher education

Even though the majority of students at GZ do not go overseas for their study, the school has had a program for several years with a community college in California. Initiated by the principal, this program is an option for GZ students to segue into the American undergraduate higher education system while remaining at GZ for their entire high school education. To be admitted into this program, graduates do not need to take

the TOEFL or SAT; rather, they must take the NCEE. In the principal's view, the TOEFL

and SAT "cheat you from your education", whereas students who take the NCEE "can achieve" in the US system. According to her, the grade point averages of GZ graduates "are the highest in the college's list of students. If students at GZ want to go to X [college], they must take the NCEE." According to the principal, GZ graduates move onto scholarships at prestigious universities such as Berkeley and Stanford after completing their two years of study at X community college. To her, the issue of wealth (especially shadow education to prepare for overseas exams) is irrelevant for taking the NCEE; "The NCEE is good because you don't have to spend money like the TOEFL and SAT, and your success depends on your score."

At the 12th grade parent/teacher meeting, the principal again addressed the importance of taking the NCEE in the context of overseas education, underscoring her belief in the high level of knowledge acquired from the NCEE, particularly in regard to STEM courses:

We want students to participate in the NCEE because Chinese high school is really powerful... Chinese mathematics, chemistry, and physics are absolutely the best. This is my principle, and I will never break this principle. You must take the NCEE, even if other countries don't require it. X community college in America uses the NCEE. The facts show my principle is right; our students who go abroad are protected.

During the summer, GZ organizes trips for students to visit this community college in California. These trips, however, are for recently graduated middle school students who plan on entering GZ high school. As explained by a 10th grade teacher, high school students are "too busy" preparing for the NCEE to go on such a trip.

5.5.4 Less Work, More Fragile

A traditional way to express the hard work necessary for the NCEE is the expression "eating bitter." In a focus group of 11th grade teachers, the teachers believed this trait of working hard was declining among students: "[It is much, much less", while another teacher commented that it is "way worse." This decline was especially noticeable in 12th grade students, particularly for the amount of work necessary for review: "[It is] much less than my generation; I took the NCEE in the 1990's. All the students were really hard working and busy preparing. They slept maybe two, three or four hours every night. The rest of the time was for studying…all the daytime hours and all the nighttime."

According to a few teachers, a decrease in work ethic has led to a type of fragility, where students cannot cope with pressure. As an 11th grade teacher stated:

We're not allowed to push the students too hard. The students can't take the pressure if we push too hard, then they may have some mental problems. They are not mentally strong...they are kind of too sensitive, and they take it too personally. Sometimes they can become really angry with the teachers and... we used to have some students who would fight with the teacher, a kind of physical fight. They were physically fighting with the teacher⁸¹.

To the director, the fact that student misbehave (did not do their work) was due to an inability to handle any hardships; "The new generation is not very resilient, and they don't struggle for their goals... And they don't want to go further or higher. They just want to maintain their own situation. Students of this young generation, they are

⁸¹ It's important to put this statement into context. During my time at the school, I saw no examples of physical violence at the school, even between students. This teacher was relating an episode where a student pushed a teacher (something unheard of) as a way to illustrate how students face pressure.

accustomed to just thinking about themselves." In other words, students no longer care about the values of their teachers, or their parents. This change in values was expressed by another teacher:

When I was a student, we had a sense of honor. We wanted to do our best. We didn't need to be pushed. We just needed encouragement from our parents. Nowadays, students don't compete. They just want to feel safe and comfortable with their classmates. They don't compete and they just keep to a regular, middle level, I think... yes, we had motivation inside ourselves. There was outside motivation and internal motivation. Now they have neither.

According to this teacher, a decline in work ethic and keeping to a "regular, middle level" is due to the values of the younger generation. Interestingly, a younger teacher expressed a similar attitude regarding his situation at work, and why he didn't want to work as a home room teacher, but rather, maintain his situation:

You need three or five years of being a homeroom teacher [to be promoted]. You do get a bit more pay but not so much, though the retirement is better. But some of us were born in the 1990's; we call that the "九零后" (*jiu ling hou*)⁸² generation. Some of us, we don't want to be promoted. If I like my class and I like my subject, then okay, that's cool. I enjoy my job and a normal life. If I want more money, I can take a part time job.

This teacher was from an urban area; as stated by quite a few teachers, where one comes

from has quite an influence on one's work ethic.

5.5.5 Rural and Urban Differences

Because many teachers came from the rural area, they spoke of the difference

between rural and urban students. Parents, however, did not mention these differences,

most probably as it would look like criticism of their own child (which they would never

⁸² "After 90's" generation

express); rather, they talked about differences in environment and situations. As a 10th grade teacher mentioned in regard to a decline in work ethic toward the NCEE, "It [work ethic] is about the country and the city, I mean the urban areas and the rural areas. The NCEE is for kids born in the rural area to have upward mobility in society, because they don't have as good resources as those in the cities." Another teacher talked about the issue of quotas, which required a higher score: "I am from Hubei province and it's a big province. Compared to Beijing, I think it is harder for us to get a good score and to go to a good college... to most students [in China], it is the same."

Besides higher quotas and less resources, one teacher mentioned that for her to continue her studies, she had to work hard to prove to her parents that she could be a "top" student, and that therefore, education would provide a worthwhile future opportunity:

Well personally, I'm from the countryside. My parents, they believed that for me to continue my studies, I had to have really good results, so they could support me and my future education. If I was not one of the top students, they didn't see an opportunity for me to continue my education. So, if I wanted to continue, I had to be a top student. That was the kind of pressure from my parents. Or from myself, because I wanted to get away from my environment and surroundings, actually.

The issue of residency was mentioned by another teacher, also from the countryside, who stated material differences between urban and rural students, as well as their advantages in higher education opportunities:

I don't think the NCEE is your destiny anymore. As a teacher, I have changed my thinking. I have tried to get accustomed to the environment in Beijing. If I was a teacher in my hometown, probably I would not think the same way. But for students here, that's not the truth... They have a lot of choices; they can go to another province to go to a better university than staying in Beijing. They can go

to a very good university and then come back to Beijing. It's easy for them to come back, because they have their residency here. And they also have their flat, their house which is very expensive. Their foundation is much higher than ours (rural residents).

Because of these reason, this teacher felt that her students had a very different reaction to

NCEE results, if the results were not what they hoped for:

They will feel a little disappointed. But I feel that they feel it is okay [the result]. It's like they don't think four years of university will decide their life. They have other chances to change their lives. And if they want higher education, they have a lot of choices. Maybe that's the difference between students in Beijing and the students from the countryside. They [Beijing] have seen a lot, and they know a lot. They don't think their future is only just the NCEE.

Unlike their urban counterparts, rural students' dedication to the NCEE was due to both

limited resources and limited knowledge about other options that are available.

5.5.6 Social Influences

5.5.6.1 The Role of Desire

Although teachers believe that students nowadays do not have such a hard work ethic, parents commented that the situation of competition among students has increased, pointing to a difference in belief from teachers that students do not work as hard. As stated by one 10th grade parent:

The situation then [my schooling] is not comparable to the situation nowadays [of her son]. I feel that competition is quite fierce among current students, and that students spend more time studying. Plus, there are things like shadow education. The energy and time they spend on studying is much larger and bigger. On a scale of 0 to 100, with the current students being at a hundred, my preparation for the NCEE was only about 10.

According to another 10th grade parent, who came from a rural background, the

massification of universities had led to a general belief in society that all students have to go to on to higher education. In addition, the situation of schools competing amongst themselves had transferred a sense of competing for "top schools" to students, as well:

In my time, although the enrollment rate was low, the pressure from society was also low. The schools now compete for their students to enroll at top universities, so the students have higher expectations for themselves, and the pressure from their peers and families is much higher. When I was a student, we thought that only really smart or industrious students could go on to university, and that those who weren't able to, would just graduate with a high school diploma. Those who weren't even able to get a high school diploma would at least be able to go back home and do farming. So, there were not many students striving to go to university.

According to the librarian, who also has a son in the 11th grade, stronger competition in

the NCEE has been fueled by a change in student's goals, which have become "more

self-centered."

Chinese society has changed a lot since the 1990's. And the pace is faster, and desire is bigger, larger than before... student pressure is linked to their desire. So, the NCEE provides for the future but what kind of future? A future full of money? Full of recognition, or full of yourself?... That's what I mean about too much pressure; it means too much desire. The pressure comes from personal desire.

This desire is driven by social pressures and the information they learn from society:

The students are simple; society is teaching them and pouring all kinds of information at them. It makes them think too much. They spend too much time thinking about material things; that's what the world is full of. So, students are young, and they have no experience in handling material things. So, they expect their desire to be fulfilled and they give themselves pressure. I think the pressure comes from desire.

Teachers did comment on the social pressures of students, particularly urban ones, to be materially wealthy. As a 10th grade language teacher commented, the media and the internet fuel these pressures:

Students also get lots of information from the internet and their mobile phones. Not from the TV or the newspaper, but the internet. And I think these things all influence students – scandals, these kinds of things, mostly about pop stars. I don't think these stars set a good example for teenagers. For example, they take drugs and get divorced and cheat on their family, all of those kinds of things. And they care a lot about fashion, and they have a lot of money.

Although this statement, particularly its references about the internet and "stars", may seem like something an older teacher (or person) would say, it was made by a teacher born in the mid 1980's, showcasing how rapid the changes in Chinese society have been. Meanwhile, an older teacher also remarked on the dangers of the internet, and how parents didn't seem to care about its effects: "the problem is they [parents] don't pay attention to what their children are absorbing. So, this is dangerous... when they notice something is wrong, it is too late... But nowadays, even parents believe in differently."

5.5.6.2 Less Security

For parents, especially those that have high expectations for their child, the need to compete was also due to a marked change in society, where students who enter university are no longer guaranteed a job. According to these parents, this lack of security was one reason why it was best for their child to enter into a top university. As a 12th grade mother explained:

More and more students need help in finding jobs [after graduation]. In my time, you didn't need it. When you entered a college, if you passed all the classes and

graduated from the university, you were almost assured of finding a job. But now, more and more students are not able to get that assurance.

This assurance of future work was explained by another 12th grade parent, "nowadays there are no guarantees about getting a job; there's been changes to the system. Some people waste a lot of time in higher education when there are more choices now." To this parent, a father, the inflated need of having a university education did not match the reality of employment in China. Related to this is a change at GZ, career counseling for students is provided, as part of the new NCEE reforms. As explained by the director, "now we want a student to think that a good job is to utilize your personal potential and talent, and the value of my existence is to help, to make the society a better place." Unlike their parents, who had their careers (and majors) chosen for them by the state system, students nowadays have a "choice."

5.5.7 Changing Times and the Changing NCEE

The issue of more "choice" and also diversity of careers is the latest effort at reforms to the NCEE by the Ministry; it's important to note that reforms to the NCEE have been constant. According to parents and teachers, there have been numerous changes to the content of the NCEE, meaning the Exam for them is quite different than the Exam their students and children are preparing for. Thus, instead of just changes in meaning towards the NCEE, there have been changes to the actual test itself. As stated by a 12th grade parent:

When I was younger, the NCEE was from the textbook. It did not have any connection to real life. But the NCEE now... [for example) I really care about the language parts of the exam. It'll focus more on folklore and politics, such as the One Road, One Belt policy, the 19th Congress. The math and science streams will be more connected to life; the knowledge will be more applicable.

5.5.7.1 The Changing Content of the NCEE

According to many teachers and parents, the NCEE is no longer just rote memorization; rather, the Exam has changed toward being more skill-based. In addition, some subjects, such as language (Chinese) have expanded to encompass cultural knowledge as well, as a language teacher explained:

We have traditional Chinese culture in the exam paper, along with some ancient Chinese, so it's difficult for our modern students to learn... The students have to read some ancient Chinese passages in the exam paper, but they cannot understand these passages. Teachers just teach them [students] methods of learning ancient Chinese... Students have to use that kind of knowledge to read the "new" ancient text. This is tested as an ability.

Meanwhile, a 12^{th} grade homeroom teacher mentioned that her students often talk about

changes to the NCEE, compared to their teacher's time:

The students today, they told me that the NCEE has changed. Like in the past, it was just memorization, and now they're asking for more critical thinking... I think the questions that they have now are focused more on real comprehension, real application of knowledge or skills, rather than being focused only on memorization. So that's a different way and they do real problem solving. I think it's good. It's a skill, or capabilities-based test.

Despite these changes to the NCEE to be more "skills-based" and to have tested content related to current events, a couple of teachers mentioned how the NCEE (and Chinee education) still has a way to go, particularly in science and math. As stated by an 11th grade teacher when asked whether the NCEE tests application of knowledge:

No, not in math. I think Chinese education is very different than the American in this way... the students in America, they have more experiments and research. And they really use their math to solve problems in daily life. They have to write papers about it, so they have to do research. But in China we don't have much time to do that. We have math application contests, but that's for the top student

who have free time and are not so consumed with daily studies... but for common students they don't have the time, they just need to do well enough to pass the test.

The result of having to spend time preparing for the math content of the NCEE meant that students were "solving the problem without context" because the math taught in the Exam is "not so related to reality." Thus, despite a decrease in rote memorization and an increase in testing skill-based capabilities, the skills taught in math are more theoretical than applicable.

This "gap" is something that the new NCEE reforms wish to address; in order to promote "innovation and creativity" (as stated in policy), teachers expressed a need for the NCEE to have skills apply to the real world, although many were at a loss on how this was to be achieved. Besides a gap between skill-based testing and application to the "real world", the new reform will have to deal with an extra gap between content and innovation. Still, all teachers agreed that the NCEE has changed from its earlier days of rote memorization, showing that reform, if slowly, has and most probably will happen.

5.5.8 Conclusion: Multiple Meanings

Of course, the numerous meanings attributed to the NCEE vary by stakeholder position, and teachers, who face students and the pressures of teaching for the NCEE every day, will have a very different view than parents, even administrators. Regardless, this section examines differences in meaning over time and reveal changes in the importance of the NCEE in society, as well as its changing role. These changes illustrate a strong link between the NCEE and larger, macro forces of society and economy.

Through these changes, participants also reveal larger social and economic changes that have impacted both student and parent attitudes towards the NCEE and what it means to "work hard" in school. Parents speak of material conditions that are totally foreign to their child's living conditions, and how escaping from their rural life or family situation provided motivation for them to succeed in the NCEE. These are underlined by teacher's comments about a decline in work ethic towards the NCEE, suggesting the NCEE's importance might depend more on where one comes from, rather than where one wishes to go. It's also good to note the importance participants place on the One-child policy and its effects on students. Much literature has been written on "little emperors" or "little empresses" in China and their self-centered behavior⁸³; according to teachers, the "little emperor" syndrome creates "fragility" and less "resilience" among students. An inability to work hard and endure criticism may be due to being an only child, or because of increased economic resources.

In addition, rapid social and economic changes have lessened the importance of the NCEE, and students have more options, such as going overseas. The fact that so many teachers remark on the ability of parents to provide jobs and future opportunities points to the rapid changes that have occurred in Chinese society – it was less than 30 years ago that China embraced the Opening Up economic reform of Deng Xiao Ping. It also underscores the fact that the NCEE does not and may not continue to have the same meaning of importance for the urban wealthy of China as it does with for rural residents. Combined with growing unemployment among college graduates (except for those "at the top"), this suggests an increasing gap between urban and rural education, as well as

⁸³ Topics in literature deal with physical and mental health issues, spending habits, psychological differences – as a singular social phenomenon exclusive to China, studies are diverse.

greater educational and resultant socio-economic inequality.

Throughout these changes, the NCEE has also undergone changes in its content and testing competencies, as seen in participant statements. The next chapter looks at the latest reforms to the NCEE, participant's views on the reforms, and how these reforms translate into action for the school, administration, and parents.

CHAPTER 6

ON REFORMS

6.1 Introduction

This chapter examines the participants' views, concerns, and beliefs about the new reforms to the NCEE, and examines stakeholder action at GZ as the school began initial implementation of reforms. As such, it lays the foundation for my second research question:

2) How do institutional elements of the NCEE serve as barriers to the implementation of new assessment reforms at a high school in Beijing?

As explained in section 1.6 of Chapter 1, the new reforms are designed to lessen the dominant and central role of the NCEE in Chinese education and higher education opportunity, through increased student choice in subjects, testing times, and new assessment criteria such as a student's moral, ideological, and social "character." Because testing times refer to being able to take the English section of the NCEE twice a year and have already been referred to section 5.3.2 of Chapter 5, I focus specifically on changes to subject streams and new assessment criteria through "evaluation portfolios." How GZ handles the uncertainty of reforms, their strategies, and justifications all provide insight into the new reforms and the many barriers that exist toward implementation. In Chapter 7, these barriers are further analyzed in light of findings from Chapter 5, as well as in regard to GZ's action and strategies as an institution.

6.2 "Surface Change"

At GZ, the principal is the most important decision-maker at the school – she determines curriculum, pedagogy, teacher promotion and duties, as well as all school

policy. Not only teachers and administrators but also parents attest to her position, influence and reputation within X district, and attribute GZ's success to her leadership. In addition, her high influence with the district Education Commission makes her a key informant on the reforms and how they play out at GZ.

To Principal M, the new reforms, particularly the stated goal of changing the central role of the NCEE in education is really "no change" in terms of the political control of education:

We cannot change [the system]. Everything is according to government rule... NCEE test papers are controlled by the government, so nobody [really] can change anything... The government says they want change, but in my opinion, they don't want any changes. Every day they say, they MUST [emphasis] say, "blah, blah, blah [a bunch of words with no meaning]." Because the political system will not change, the reforms will not work.

To the principal, government control of the NCEE and education has not and never will change, resulting in "no change" to the system. Nonetheless, the government is always under pressure to "change" or improve the education system; therefore, reforms are spurred by a normative pressure to improve education. However, due to the political system, "change" only results in "surface change:"

The word change is very useful, but in China, the system does not change, so everything cannot change a lot. The political system is a lot of trouble. "System" means everything is decided by the government. They only want political power. Why is it they are now doing these things [reforms]? It is only for appearing to be more international, a surface change. But the system is not changing, the textbooks are not changing. Interestingly, in an interview with the Deputy section chief of X district, the issue of government control was stated as "Chinese characteristics," in reference to his statement that "the goal of the reform is to basically establish a modern education and enrollment system with Chinese characteristics by 2020:"

As for Chinese characteristics, I mean it is part of the Chinese educational governance system. It means doing things according to the situation in China, and the future aspects we wish to develop. It means top-down administration... It has elements of the path of Chinese Socialism, the theory and the system, and our practice according to the theory. Like how we have developed, the way we will choose to develop, and the directions we will pay attention to. These are the implications.

According to the principal, new reforms geared toward promoting creativity and innovation through student choice of streams and "scientific selection" (multiple admission criteria), will have little effect GZ or its students, due to the fact that the higher education enrollment system at top universities will remain the same. Rather, the reforms are geared towards enabling greater enrollment at "common" or "average" (tier 2 and tier 3) universities.

Qinghua, BeiDa – [the reforms bring] no impactful change at top universities. The admission scores for the average universities [will allow] students from rural population to go to universities. Through the reform, the common universities will let more students from rural areas in. This reform is the means of separating the top universities from the common universities⁸⁴.... If we [GZ] prepares well, there won't be any change.

To the principal, "preparing well" means "keeping their ranking and test scores high" so

⁸⁴ There is a logic to these statements – the former system of subject streams requires students to perform well in all three subjects within a stream. "Common" universities may only require one or two subjects, allowing, in the words of someone used as an external member check, "those talents [students] to still be harvested." However, discussion about rural and urban differences was not encouraged, implying such a distinction is a sensitive subject.

that students enter top universities; despite reforms designed to counter the dominance of the NCEE in higher education opportunity, the principal stated, "but, we still have to do our own thing." Doing their "own thing" also implies that, given the predominance of students in the science stream, there will be little change in subject choice, as well.

Thus, "surface change" refers to three levels of "no change" – government control of the NCEE system, GZ's focus on top scores and top universities, and the enrollment requirements of top universities. In the words of a senior teacher at GZ: "I'm like principal M; I don't worry about the changes. They usually change for nothing." Regardless of "surface change" or "changes for nothing," the rest of the participants, particularly parents, had much to say about the reforms.

6.3 The Ending of Subject Streams: Individualized Education

The most pressing aspect of the reform dealt with the issue of student choice of classes. In GZ, 11th grade students choose between either Science (理科) or Fine Arts streams (文科); this choice is required at the beginning of the school year. The choosing of streams determines the three subjects a student will be tested on in the NCEE, in addition to the required courses of English, math, and language. Science includes the subjects of physics, chemistry, biology, while Fine Arts includes history, geography, and politics. The reforms do away with subject streams, giving 10th grade students the ability to choose across these six subjects in fall, 2018. As stated earlier, there's a marked preference for the science stream at GZ; in the 11th grade, there were 42 Arts students and 168 Science students; for the 12th grade, 40 art students and 180 science students.

According to the Deputy Section Chief at X district, the issue of student choice is the most important part of the reform:

The biggest characteristic of the new round of reforms is to increase the selection of the students, and this selectivity brings with it personalized needs... This design is to develop a student's advantage, like their talents, to make sure that students are not all the same. Also, the country has much need for diversified talents. The students will all have different characteristics.

The importance of individual choice was expressed by a 10th grade teacher in regard to the reform; "because students can choose, it is more individualistic. Students can make the most of themselves. The choices are in their hands; they have more freedom to choose which subjects they are good at and everyone can be different." Similar to the Deputy's view (which sounds very much like policy), the ability for students to choose will allow a more personal and individualized form of education. As to why this is important, the Deputy explained:

I think this is mainly for two aspects. The first is for the development of a person, and second is the need of the country. This need is mainly to ensure that the country can strengthen its national strategy. According to this strategy, the country needs talent with creative thinking and consciousness. In the past, the NCEE enrollment system just needed the same kind of talents. This has had negative effects on talent selection. So now we have given students their own choices and they can do what they're really good at. This is very important for the development of their creativity and in a larger sense, it will be beneficial for the whole country.

Thus, individualized choice is justified with (the current state of) national development, something that the former NCEE system restricts due to its emphasis on the "same kinds of talents." There's an assumption that student choice will enable both creativity and a creative mindset, implying that the shortage of these characteristics in Chinese education has more to do with subject choice than either curriculum, control, or the NCEE system. A 10th grade parent expressed concern about the logic of the stated

policy of talent/student development and the role that the NCEE plays as a selection mechanism for "talent:" "I'm worried about it [the reform]. The government is not clear about how to develop talent in people while finding a suitable place for student interest. The country needs to select talent [through the NCEE]." According to this parent, the country needs the NCEE, and the link between the NCEE and students pursuing their interests is tenuous at best.

6.4 The Impact of Reforms

6.4.1 The Test Group

For 10th grade parents, the fact that their child would be the first group of students impacted by the new reforms gives them much concern and anxiety. As stated by one 10th grade parent, "Right now I think that for the children, it's [choice of subjects] really ambiguous and unclear... I don't really want to say anything now and I am nervous. Because the reform is newly developing, it's hard to predict." Meanwhile, another parent stressed a "big impact," since her daughter "is the first class to have the reform." The fact that 10th grade students are the "test" group, with no reference, direction or prior experience to draw from, was best summed up by a parent whose son is currently in the 11th grade:

My boy is in grade 11 now. So, I think he is very lucky to avoid the reform, because we don't have any experience with that kind of choosing among subjects, and what the result of that will be... Most of the parents are totally confused and hopeless because they don't have any experience at all. In my [and my son's] case, we still have the experiences [of others before us] to follow; we are not the new ones in the laboratory. I do not want my boy to be the first batch of rats to test the reform.

Besides being "the first batch of rats," this parent criticized the option of student choice in the reforms, stating, "I think it is too early for students to choose their career or their future. You know the NCEE is the key, or one of the keys to their future. The reforms are a totally different method of getting into university." The idea that it is "too early" for students to choose was echoed by the principal: "Where is my interest, how do I find it? Maybe 90% of students don't know this." To the principal, the issue of choice was driven by a pressure to be more international; "'What do you think?' and 'What do you feel?' Student choices are [examples of] eastern thinking mixed with western thinking. This will change the Chinese system."

6.4.2 Vague Understandings

In addition to anxiety about being the first "test" group and unprepared for the reforms, many parents expressed concern over a lack of preparations by both the government and the school. In the words of the principal, "I'm waiting for the information, and doing more research, then I can understand how I can let students select their subjects. Right now, I've no idea." As one 10th grade parent expressed:

The college entrance examination reform should have undergone more in-depth and meticulous research before rules were changed. It will be implemented on a large scale soon, and this will inevitably have a negative impact. The overall preparation is not sufficient, guidance is not specific and clear, and public information is not sufficiently detailed, causing panic and shock to students and parents.

In interviews and open-ended surveys, 10th grade parents had a high store of knowledge about the reforms. When asked where and how they got this information, I was referred to numerous websites and blogs that focus exclusively on the NCEE and NCEE reform; parents also spoke about their involvement in WeChat parent groups that discuss the reform. These websites include recent government policy documents and reports, results from Shanghai and Zhejiang (1st pilot reform), suggestions for parental care during the NCEE, projected cut off scores for universities – topics too numerous to list here. These sites provide crucial information on gauging societal-level opinions and interest towards the NCEE; what was most important to my research, however, was the degree to which parents were informed, and the high degree of responsibility they felt towards finding information. As stated by one parent during an interview, regarding the issue of student choice:

We are also considering my daughter's choice according to the requirements for each type of university major. For example, with physics, 97% of majors (at university) can be chosen. But if you do not choose physics, only 80% of majors can be chosen. So considering this, many students will be considering physics... [this information is] from a report from X district⁸⁵. It analyzes what majors a student can apply for according to their chosen subjects.

Parents regularly exchanged information with each other, particularly as many felt that the school was not providing enough information. One parent commented that she "expects more advice from the school about the students' choice of subjects," while another parent mentioned waiting to hear from municipal authorities: "At present, the specific plan for Beijing has not yet been introduced. The parents of the school and the teachers are very confused/bewildered and [these issues] have not been resolved." According to the director of teachers, the reason for an absence of a specific plan is because of the differing conditions at each school within X district; "we do not have a

⁸⁵ This district is the highest performing district (in terms of NCEE scores) in Beijing. As policies by universities were still unclear during my research, these percentages were only approximations. What the percentages refer to are the majors that can be chosen at university, according to student choice of subjects in high school. Choosing physics garners the most choices at university.

uniform, one demand for all students and schools. So, these policies are vague to allow each school to have its own development." Due to the vagueness of policy, and the lack of specific plans on how to carry out the reforms, a situation of "waiting" exists; in the words of one parent: "we are awaiting a clearer policy, so that the colleges and universities will be clearer about the [new] admission standards of the college entrance examination reform." This was echoed by the principal; "they will give me the information next year. Next year, I want to help our students to choose. This year [2017], we are waiting."

6.5 Waiting for Information

6.5.1 The National Level

The important role of university admissions in the reforms was mentioned by several participants; however, it is not the universities alone that provide this information (or determine admission standards), but the Ministry (national-level), which will create a report compiled from data procured through the pilot programs of Shanghai and Zhejiang province. This data will be used to determine admission criteria for top universities nationwide. According to the principal, "The whole country is waiting for this information. They [government] also know which universities want what [subjects]. This university will decide they want this, etc.; then they will tell us." Although the principal was awaiting information from the government, she expressed grave concern about relying on said information, due to the varying contexts that exist across the country: "China has so many situations and contexts, there's no [one] method that can prepare people to do the work of the reform. Shanghai and Hangzhou both didn't prepare well;

schools complained there wasn't enough preparation, so people said the changes were not good and had no use." Because of this, GZ is actively seeking out information; the viceprincipal stated that high school teachers from Shanghai and ZheJiang had already been to the school to give reports on the reforms at their schools. The logic of this was stated by a 10th grade teacher: "Shanghai has already done such tests [reformed NCEE]. The only thing we can do is refer to Shanghai's experience."

6.5.2 Provincial-level Results, District-level Decisions

To the principal, results from the provincial-level education commission of Shanghai and Zhejiang were her main source of information, illustrating greater confidence on reports from this level than the national, since the provinces already had experience with the reforms:

I'm waiting for some information from Shanghai and Zhejiang about how we can teach the students to select. I want to get some information so I can know which universities want what – they have already studied this; they already know this information. Afterwards I will tell the students, you should do this, etc. Probably everything at the universities [will happen] three years later. So, I have time to prepare everything. The fact is the top universities still want high performance, but the other university groups are not clear [about their admission criteria].

As stated earlier, the principal believes that changes to enrollment requirements will remain the same for top universities, indicating little impact on GZ. However, for other universities, there may be changes, and it is best to follow the results of Shanghai and Zhejiang; "Yes, everything [will be] according to what students from Shanghai and Zhejiang have done... then they will tell Beijing. So this way, Beijing students can know. We will prepare immediately so that next summer we can get information to help students." This information was confirmed by the vice-principal, who stated, "we will receive the files from X district's administrative department in Fall, 2018."

At the district level, however, reports will not set reform procedures in stone. According to a 10th grade geology teacher, there is a sort of "trial and error" approach with the district educational commission, suggesting another reason why reliance on national-level decisions is less; "It's up to the Education Commission to research and investigate. After they feel like this is the best thing to do, they will implement it for a period of time, and if it is good, they will spread the practice." This was echoed by the director of teachers, who stated, "After some time into the reform, the results will arrive, and then they [the Education Commission] will adjust it accordingly. The following round⁸⁶ [of reforms] will be different."

6.5.3 Factoring in University Enrollment

Besides awaiting decisions from the provincial and national government, GZ was also waiting for information from universities. According to the Deputy section chief of X district, the impact of NCEE reform allowing for student choice has negatively impacted university admittance procedures. Despite having several years to decide the best course of action, universities in China are, like GZ, waiting for results from the pilot provinces of Shanghai and Zhejiang. To the Deputy, national universities will follow Shanghai and Zhejiang's requirements for subject choice; "the universities' demands in terms of enrollment are not very clear. Universities in Shanghai and Zhejiang are demanding one or two subjects and the students' other subject can vary." This statement ties into an earlier statement by a parent, who stated that (according to a website by X district) "97% of majors" require a student to study physics for the NCEE.

⁸⁶ Set to occur nationwide.

Teachers at GZ also expressed the important role of universities in the reform process. As stated by a 10th grade language teacher, in regard to helping his students choose next year:

We just don't know. Our universities have to tell us first which subjects students need. If I am a professor in Chinese language, I need my students to know maybe history, maybe geography, maybe politics. But if students don't choose these, how can they enter my class? So, we're waiting for the universities, but they have not told us yet. Also, right now, they don't have much of an idea.

The classes named by this teacher all belong to the Fine Arts stream; for universities to decide on required courses for each major will be a huge task. Thus, in addition to national and provincial-level decisions, there are decisions to be made at the university level, too. To the vice-principal, having universities involved in the reform process added an extra burden to the school:

The decision is in the hands of the universities. They will decide which subjects reach their standards and the score [that] is needed for the subjects. In order for this to work, we have to make a balance between what the universities demand and our own desires. So, in reality, these two things are not well matched.

The issue of "our own desires" refers to the issue of student choice in the reforms; student choice is curtailed by demands of university requirements. Thus, although the issue of waiting may be solved once information arrives, the issue of *real* student choice based on individual interest and not admission requirements, will still have to be addressed.

6.6 The Reality of Choosing

Perhaps due to the uncertainty surrounding reforms and the situation of "waiting" at GZ, there are multiple meanings about what reforms mean, as well as the best way to approach them. For example, the issue of GZ's ranking and student test scores was important in conversations with both teachers and parents. As stated by a 10th grade teacher:

There is a lot of pressure in the school to have a high score, to rank first in X district. The new NCEE, because it is a reform, the school or district will give students some training on how to choose subjects – maybe some will follow the whole stream. But if there are too many choices, it will be hard to organize – there will be chaos. [I am] a little nervous; the school is more nervous.

6.6.1 The Traditional Method: The Tried and Tested

The confusion about how best to approach the reform was expressed by one parent, who admonished the school for sticking to the "traditional method" of focusing on high test scores for all six subjects:

As a parent, I'm concerned about the choosing of three subjects. I've been sick [with worry]. Although I've been to parent meetings twice, the school hasn't provided us very clear information. The school says that the national policy is still not clear, so they have suggested that our children study each subject as much as possible...This may cause more pressure for students, because the students only have a limited amount of energy for all the subjects.

The idea of "traditional methods" was implied by another parent, who suggested that his child's choice would be best guided by decisions from teachers, who understand the capability of students to memorize answers: "I think that for children, it's really ambiguous and unclear. If choice is based more on [the ability] to memorize, then it'll be better if the teachers give guidance. I'm not able to say anything now and I am nervous.

Because the reform is newly developing, it's hard to predict." Another parent expressed similar concerns about the vagueness of information regarding the reforms, but added, "One thing is certain – that my child's current academic burden will increase." This is because of the strategy expressed by the principal, regarding how students should perform well in all ten subjects: "keep the qualifications [standards] high. After this is done, any changes [that happen], there won't be a problem."

However, some teachers saw the difficulty with this approach; as stated by an 11th grade teacher, "I think it's more challenging for students... in 10th grade, students will face the reform, and they have to learn all of the subjects, you know Fine Arts and Science, at the same time. I think it is a heavy burden for them." The burden referred to by the teacher was in regard to doing well on all subjects so that a student can choose according to her strengths (in scores on exams). This was also expressed by the music teacher: "It makes more sense when the students get to choose what interests them." In this teacher's view, knowledge learned through interest and choice is different than learning for taking a test. However, when asked how to help or guide students towards finding their interests, the teacher replied, "the way a teacher lets a student self-develop his interests is through letting him learn all the subjects so that he can choose what he's good at...this is how you bring out the potential – by learning all subjects." There is an equation with "being good" at something with what one's interests are, revealing again a practical (score-oriented) view towards student interests.

The paradox between academic achievement and choosing subjects based on student interest was expressed by the vice-principal of the school:

The main point of the reform is to promote student choice. [It's supposed to be that] students can choose what they like or what they want out of the six subjects. Actually, in the implementation of the reform, there will be many problems because competition for universities is really fierce, and entrance is not decided by what kind of person you want to become, or what subjects you want to choose.

To the vice-principal, the competition for high scores outweighed the importance of deciding based on career or interest. The director of teachers expressed a similar view regarding career choice, stating that at GZ, "we do not want to give the students very concrete suggestions about career choices from courses they are interested in. We would not guestimate their career development, we want them... to boost their personal cognitive development, so they can make their own personal choices in the future... Of course, the students will choose different subjects, but the universities are still recruiting based on marks." To the administrators at GZ, career choice has less to do with interest and more to do with academic achievement.

6.7 Future Careers

According to the stated goals of policy, students will choose among subject streams according to their interests, which will determine their higher education major; their major at university will in turn determine their future career. As expressed by the Deputy, "schools need to guide the student in their study and career planning"; in order to achieve this, the district Education Commission will equip schools with "professional career teachers" and "train teachers to help students with their career design." Thus, the reforms are hoping that teachers will be effective guides for students and parents:

It will be teachers who will have to guide the parents. It really brings more trouble for teachers. The parents agree in their hearts with the reform, but they're also very nervous with helping their child make a choice, because of their lack of experience. They will rely more on the directions from the teachers. (Deputy)

According to the Deputy, "10th grade teachers have textbooks that train them how to help students choose." However, 10th grade teachers and administration claim that these textbooks are really vocational training materials, and therefore, inappropriate. As stated by the director of teachers:

Regarding career development, we do not have textbooks yet. Especially in respect to the career development of high school students, we still lack these materials. Because firstly, the student development materials given out by the Ministry are too general, not deep enough, and not very instructional for us. Secondly, most of the materials are from vocational training materials for adults, so they are not suitable. So, the way to solve this problem is to find appropriate material [for students].

Meanwhile, a 10th grade teacher expressed that while meetings have been happening, the Education Commission is still unsure about how to do trainings: "we were having meetings before, and the Commission didn't know how to do trainings on student choice. We haven't received any detailed information, we just know that we are going to reform."

To other teachers, the issue of not having enough training was not too worrisome. As a 10th grade geography teacher stated, "I will probably go with the flow. I don't really care... As a teacher, we should just be responsible for teaching, and be adaptable to the new changes from the reforms." Meanwhile, a 10th grade language teacher took comfort from the collective lack of knowledge about the reforms: "the reforms are happening very fast – too fast; we're very worried. However, right now everybody is in the same boat, so why should we worry? It's happening too fast, everybody knows it's going to be fast, but we're not too worried."

6.8 Considering Scores

The important role of scores in university admittance and the contradiction this poses to student interest was also of paramount concern in many participant statements. According to one 10th grade parent: "[According to policy], the subjects to be selected should not be chosen based on advantage or to avoid any academic weakness. At the same time, we are worrying that the subjects our child will choose will not help her in the future," referring to university and future job opportunities. This was echoed by another parent, who stated that, "the project has been distorted by utilitarian realism [in reference to results from Shanghai]. Students will choose three subjects based on high scores to get them into top universities, not on their interests." According to this parent:

The college entrance examination reform is a must, but the current way of incorporating changes [reforms] is not very suitable. In the pilot programs of Shanghai and Zhejiang, there are many problems, like the fact that many students did not choose physics. If this continues, this [option] will spread as a choice and the quality of education will suffer. Children will choose what is easy to learn, but this may not be beneficial... how to choose should be based on consideration of future employment and by reference to the subject requirements of the colleges and universities.

Besides parents, teachers also expressed a similar concern; as stated by a 10th grade teacher, "the important thing in choosing subjects is what kind of majors students will have access to, and what kind of jobs will they get." A couple of teachers, however, expressed concerns at a much more practical level, the level of scores: "If they can choose subjects that they are really good at, then they can be really prepared for the NCEE and get a high score. And then they can choose their favorite or ideal university."

This was echoed by a senior teacher at GZ, who commented that the reforms are "like a new game, because everyone can choose the subjects where they have an advantage.... because in my opinion it's much easier to have a high score in Fine Arts then in science."

6.9 Preference for Science

Although a couple of teachers expressed the importance of scores, the importance of choosing science courses far outweighed any consideration of scores. As asked by a 10th grade geography teacher, "for someone with a mixture of streams, how can they be compared with someone who has more scientific knowledge?" According to the director, the choosing of streams might have a negative effect on national development:

The students have more choices than the science or the Fine Arts stream, so we're worried about [reaching] a high level of [national] development – nourishing talents. For example, biology, physics, and chemistry are better subjects for winning the Noble Prize⁸⁷. So, after the reform we are worried that this combination of talents [in science] will decrease, and this will [negatively] influence the talents of the country.

Parents expressed a preference for science, also. One 10th grade parent stated that "Fine Arts will still be the lesser choice" among students, which was illustrated by another parent's comment about her daughter; "If she could get a good performance in science, of course we would prefer that she chooses the science stream. But if she really cannot do well, we will encourage her to choose Arts." Another parent mentioned the importance of science in providing broader future choices; "I am more than happy to prefer my child studies science, because I feel that employment is good. For personal development in the

⁸⁷ The reference to the fact that China has yet to win a Noble Prize (in science) is often referred to as a criticism of China's education system; "The Noble Prize is the highest accolade in science...Chinese national citizens do not account for even one of them (winners)" (Zhu, 2014, p. 189).

future, there is more room for development and this area has more opportunities." As one 10th grade parent mentioned, the choice of science courses even outweighs the interest his daughter has in Fine Arts:

My child's interest is in the Fine Arts stream of history, geography, politics, but my child's results are relatively good for science, and learning is not difficult, so there is great potential. There are many people and resources in our family that have taken the science stream, so our child has resources. Plus, science is better for future employment.

Still, not every 10th grade parent agreed. One parent suggested that her daughter

not choose all science courses (only chemistry), due to her weakness in physics:

I've heard that physics is going to be very important in the University admissions. But we will still choose subjects according to what she's interested in. It's not wise to choose subjects that she's not good at. Because she has problems with physics, we won't suggest that she choose this. Even though the Universities will put a high percentage on physics, we will respect her wishes.

This was similar to another parent, who stressed they would prefer for their daughter:

"... to have from both. That would be better for her development. We think that physics and chemistry are part of basic knowledge, so these shouldn't be given up. Politics, compared to geography and history, is advantageous because for the same amount of study time, you get more results, the yield is more.

The suggestion by this 10th grade parent shows an awareness of physics and chemistry as "basic knowledge" needed for university. The choice of politics over geography and history is due to a consideration that studying for politics yields higher returns, and therefore, a higher score on the NCEE, illustrating a highly practical approach.

Based on this data, there is a marked preference for students to choose science courses over Fine Arts courses; *not* choosing all science courses is due to either academic

weakness in a subject area, or the opportunity to score higher on the NCEE. It's important to take into consideration the ideas and decisions of parents. An 11th grade English teacher, who was also a homeroom teacher for 6 years, spoke of the important role that parents play in their child's choice of streams:

At the end of the second semester of the 10th grade, they have to be prepared.... then they will discuss with their parents which direction they want to go, even argue. Most of the children, their parents want them to learn science because it's quite useful, and they have a wider choice of majors at University. For some of them (students), they really like learning Fine Arts, so that's the argument between the student and the parents...

To this teacher, parents' influence on their child's choice of subjects is a significant factor, implying that in the end, parental wishes are more influential than student choice. Thus, the issue of choice among science and Fine Arts subjects involves much more than the policy goal of promoting student interest and developing knowledge across both streams. It involves parental preferences and pressure, a bias for science over arts that is institutionally embedded in higher education opportunities (and future employment), and a social belief that education in science is of higher value than arts.

6.9.1 The Issue of Innovation and Creativity

In a focus group of 12th grade teachers, I asked teachers their views on the new NCEE reforms, particularly how the new reforms to the NCEE will promote "innovation and creativity," two catchwords associated with increasing scientific development (Zhu, 2014). Their answers illustrate another disconnect between policy goals and what the NCEE requires:

T1: Innovation is based on a solid foundation [of knowledge]. This determines the level of innovation that can happen. The NCEE lays a good foundation for their future innovation.

T3: I've no idea, my understanding of innovation has two aspects... As for innovation in this [science] field, they have to have a very solid achievement or academic foundation to be innovative. For things like drawing and art... I don't think innovation can be cultivated in the school system.

T4: In math, the traditional textbooks focused more on [memorizing] processes of logic. But now... students must show their own process of logic. This is really beneficial... A very frequently used example is Newton's discovery of the gravitational principle by watching an apple drop. It's important for students to learn by observing phenomena in our physical world, and then try to explain of these phenomena. Now, our textbooks focus more on these [types of] thinking skills of the students.

In these statements, innovation and creativity are based on a foundation of knowledge

and academic achievement; these are determined by textbooks and NCEE content.

Although the NCEE "lays a good foundation," teachers are unclear about how exactly the

NCEE (and its content) foster creativity and innovation. Another 12th grade teacher,

however, had a different definition regarding innovation and creative thinking:

You know, people nowadays like to take Ma Yun [Jack Ma] from Alibaba and Taobao [China's Amazon] as a model. We have a lot of Mr. Ma's. They are quite innovative and creative, but for ordinary people... I can tell you one story. Last week I wanted to fix my bicycle because it had a flat tire. So I asked the [security] guard at my apartment, and he mended it really quickly, almost professionally. I think that person can be called creative.

To this teacher, innovation and creativity "for ordinary people" has less to do with academic knowledge, and more to do with an approach to problem-solving. Nonetheless, how education based on the NCEE fosters this, or how the reforms will promote problem-solving, was not stated.

6.10 Comprehensive Evaluation Portfolios

Another important aspect of the NCEE reforms is in the area of comprehensive quality evaluation, which, according to policy documents, "reflects the comprehensive development of students' moral, intellectual, and aesthetic qualities, and is an important reference for students to graduate and progress in school" (*Deepening*, Section B:2) Unlike the reform of subject stream and the issues associated with student choice, the requirements of comprehensive evaluation for students already exist in resources and teaching routines at the school. Within the school, there is an "evaluation department", in charge of gathering and monitoring yearly evaluations completed by teachers and students. These materials, combined together in a portfolio, are sent to the district at the end of every school year; with the reform, they comprise what is known as comprehensive quality evaluations. These evaluations also contain student material posted on a website⁸⁸, managed by the municipal education commission. According to policy, these materials will be sent to university admission offices, and by the end of 2017, all universities are to use them in the admission process.

6.10.1 "Routine Work"

At the time of fieldwork, universities were still unclear how to incorporate them into admissions. This was stressed by the "evaluation teacher", in charge of the evaluation department:

If the administration at top universities took these records seriously, then teachers would definitely put a high value on them and take them seriously, too. At the very beginning the teachers put serious effort into them, but then realized that if evaluations are not valued by universities, they could take it as routine work.

⁸⁸ "北京高中综合素质评价电子平台" (Beijing Electronic High School Students Comprehensive Quality Evaluation Electronic Platform)

Also, the evaluations are quite subjective, they are not standard. The evaluations from teacher to teacher are quite different. They aren't comparable. We believe that these evaluations will not be very important criteria in the future. So, we're still doing it as a routine work.

"Routine work" referred to teacher's evaluations of students has existed since 2010. In this system, teachers (including homeroom teachers), evaluate students and their development throughout the semester; however, "these records are not very valued by the universities and administrations... They know their evaluation is not valued." Thus, teachers do not take student evaluations very seriously. As stated by a senior teacher at GZ:

[We] have to put [evaluations] online. Oh, that's bullshit. That's not real. All those comments, they are suitable for everyone...we haven't been given training [in evaluation]; no, they are from our own experience. Students are divided into different types, like hard-working, warm-hearted, they are all good characteristics. We cannot write anything bad. We cannot write negative things.

The fact that teachers are not allowed to write "negative things" already suggests a "surface" nature to evaluations; it also suggests, considering that direct criticism is viewed as rude, that there are cultural elements influencing teachers' responses.

6.10.2 Subjective Standards

The routinization behind evaluations is compounded by the subjective nature of their assessment, which, according to a 10th grade teacher, is due to the fact that a unified framework of standards does not exist. This teacher, also a homeroom teacher, showed me her website login to reference the standards "suggested" by the district:

So, the first is about character, and then their moral values... Actually, these are just for our reference. We can pick any category, for example, if they are

civilized⁸⁹ or if they have participated in charity work, or class duty, or a presentation... the homeroom teachers have to log in to a website and give some evaluation of a student's performance for the semester - about their personality, about their learning attitude or behavior at school, and their academic performance as well.

In addition to a lack of standards, where teachers "can pick any category," evaluations are

seen as unimportant:

Evaluations are not influential... because in China the NCEE result is the most important indicator or factor for college admissions. The evaluation, I think, is not considered. It's like a routine, we have to do it every year, every semester, just to give an overall review, feedback about the students... I don't know if comprehensive evaluations will be more valued [in the future]. The total score is 750 for the NCEE. If 50 scores are given to club activities – we don't know. The score is the most dominant factor.

To this teacher, the best way to handle evaluations would be to translate teacher feedback

and student activity into part of the NCEE score, an objective (and influential) form of

assessment. This focus on scores was echoed by the director of teachers, who stated that

especially for top universities, evaluations will always be secondary to academic

performance:

We have done this work, but evaluations are not a clear indicator of the potential of the student. According to the policy, it says it should be used, but actually, it is not being used by admissions at top universities; scores are most important. Top universities still require we provide these materials, but those who make admittance decisions, they are more focused on concrete skills, or personal research results, not what students have done in their daily life, their school life. Those middle universities, average universities, they may seek reference of these [reform] materials.

⁸⁹ Please see section 5.3.9.4 for examples of social behaviors associated with "civilized" behavior

Although the director did not specify how or why evaluations may be used by "average universities," her statement reflects a distinction between the impact of evaluation materials on top versus middle universities, echoing an earlier statement by the principal – that reforms are essentially "surface change" when considering the hierarchical nature of higher education in China, and GZ's focus on entrance into top universities.

6.10.3 "Overall Ability"

The "materials" referred to by the director are part of student "comprehensive practices." As explained by the Deputy section chief, these practices are an opportunity for students to "talk about their creativity and some programs they are taking part in," which the "university can use as a reference." From the point of view of the reform, these activities "will encourage students to be inventive and creative in senior high school." An example of an activity by an 10th grade student was provided from the website, entitled the "Beauty of Listening to Music", which described a student's experience going to a symphony:

Symphonic music is something beyond me; I always feel that the performance, with the glamorous costumes and a serious atmosphere is always beyond me. So, when I hear about activities like this, I am a little bit afraid because I'm afraid that I cannot understand the beauty of it. So in the beginning, I resisted going to any performance. But that was before. When I sat and listened to the music, it was completely different from what I had predicted. It was like a dream to sit so close to the musicians. The music resonated in my heart and brought me pleasure and happiness; it can give rest and peace to people's inner heart, against a noisy and busy city background.

To the evaluation teacher, these activities were "a way to push, to urge the students to develop their overall ability." However, it was the issue of universities again that was the deciding factor; "maybe we can tell students that it's very important, that this college will want to see what they put down over their three years. Maybe it will arouse student

awareness, and they will focus on it and value it." Currently, as the Deputy section chief remarked, "The college uses it as a reference. It is not the deciding factor." Interestingly, students must write at least 10 activities on various categories⁹⁰; according to the evaluation teacher, students are scored based on how many activities they write, not on quality. Teachers have to "pick a few" (not all) to comment on, and they also give a score. This, like the student portfolio, is posted online; "We have to post a grade online at the end of this term."

6.11 Conclusion: Problems with Reform

Based on data, we can infer numerous challenges facing the implementation of new reforms to the NCEE. First and foremost is the issue of student choice across the six subjects of physics, chemistry, biology, geography, history, and politics that were previously divided into science and Fine Arts streams. According to government policy, the goal of selection is to cultivate diversified talent among high school students, through a more "personalized" education previously denied in streams. This in turn will result in, one, enhancing the individual strengths of students, and two, enhancing national development. According to the Deputy section chief, the former NCEE system only cultivates one kind of talent, whereas the new system, geared toward innovation and creativity, will help develop the human capital China needs for the 21st century. How student choice across subjects will achieve this within a system where student (and parental) interest is monopolized by success in the NCEE presents numerous problems.

⁹⁰ These include activity on arts, social practice (which is actually military training), class duties, overseas experience, mental and physical health, PE-related activities, health and exercise, and moral education.

As one parent commented, there is the issue of "utilitarian realism', where students will select courses based on achieving the highest score on the NCEE. More than this, however, is an institutional and cultural bias of science over arts expressed by many parents, whose influence on student choice is another factor. This bias is not without weight; a science-based high school education leads to greater chance and choice of majors at top universities, which translates into better opportunities for future employment after graduation. Within GZ itself, the majority of students are science students. Given the principal's insistence on "surface change" and GZ's reputation within X district, the school itself seems reluctant to embrace individual "choice."

Meanwhile, the government's strategy towards handling student choice across subjects is to provide career training for students. Administrators at GZ complain that training materials are materials used in vocational training for adults, and that no new materials have been given. However, emphasizing training as a solution to the issue of student choice ignores issues within the centralized control of China's higher education system. Ultimately, it is the government that approves the number of students admitted into university majors (and hence future employment) through its quota system. The unpredictability of student choice across six subjects requires *greater* government coordination at the higher education level, which runs counter to higher education reforms aimed to increase university autonomy and independent admission systems (Zhang et al, 2012, Liu et al, 2014). In addition, as participant data reveals (and numerous articles on increasing graduate unemployment as well), the link between higher education and employment is no longer guaranteed; to an extent, the government strategy of career training harkens back to Mao-era strategies of a planned economy.

Finally, comprehensive evaluation and student portfolios, designed to lessen the role of the NCEE in determining university enrollment, has several obstacles. Although teachers have "evaluated" students since 2010, there is no standard of evaluation as to both categories of evaluation as well as criteria. The "subjective" nature of evaluation, considering the "objective" nature of scores, is another obstacle. How strong this belief is can be seen in use of scores for student activities that must be posted online. These scores, though, are gained by completing an assignment; again, there are no criteria for evaluation and teachers can "pick a few" to comment on. Most importantly, however, is the fact that these evaluations are not being considered by top universities, which only use them for "references."

Based on these obstacles, and the rather haphazard manner in which they are being implemented through vague and incomplete information and lack of appropriate training, the *real* purpose behind reforms remains a bit of a mystery. However, comments by administrators about "lesser" (tier 2 and tier 3) universities being affected by the reforms as well as how these universities may reference student evaluations in admittance criteria suggest that the reform is not really geared to affect high schools like GZ, who seem convinced of "no change." This is also suggested by the principal's comments between rural and urban universities, suggesting that reforms will not affect the criteria of top universities, either. Within the system of subject streams, students who do not score well in one subject within the stream, for example, physics, may not reach a cut-off score for a particular tier of university, for example, a tier 2 or tier 3 university. However, if students choose across a range of subjects, particularly based on their interests (which is equated with strengths in policy), there is a chance they may still enter into university.

Thus, universities can "select" these "talents", which they would be unable to do in the former system. This implies a widening degree of inequality and growing elitism in Chinese higher education.

The numerous problems with reforms, whether in subject choice or comprehensive evaluations reveal many problems with top-down coordination and implementation, as well as issues of interpretation; particularly among administrators at GZ, there is little incentive to incorporate or pay attention to reforms when they detract from GZ's focus on being a top scorer in the NCEE, and having their students enter tier 1 universities. In the final chapter, I analyze, based on findings in Chapter 5, the institutional barriers to reforms, and also analyze stakeholder action at GZ in regard to key tenets of institutional theory.

CHAPTER 7

ANALYSIS AND DISCUSSION

7.1 Introduction

To restate the theoretical framework behind this dissertation, I employ institutional theory to analyze the data gathered from GZ high school on the NCEE and the initial impact of government reforms of the NCEE system. In this section, I utilize Scott's framework of three pillars that comprise institutions as a conceptual tool and offer empirical evidence of the regulatory, normative, and cultural-cognitive elements of the NCEE. Methodologically, this approach is grounded in the use of "actors' discursive output as topics for analysis, that is, as documentation of cognitive frames, principles, or institutional logics" (Schneiberg & Clemens, 2006, p. 211). To borrow from Meyer and Rowan's famous perspective of education (1977), the test is an institution used by a variety of groups both within and without the school, for a variety of purposes, both "real" and symbolic. Through analysis of this "reality" and the ways that stakeholder actions are constrained, this section defines the institutional elements that are barriers to the goals espoused by national policy documents to reform the NCEE system and China's "test-centric" form of education.

Scott's three pillars framework comprises the main part of my analysis; however, I also present an analysis of GZ as an "institutionalized organization" (Shield & Waterman, 2018). After all, the function of the NCEE as a selection tool in society and national NCEE policy reforms are very different than the function of the NCEE in a school. In addition, the institutional environment of the school warrants attention; such an

analysis emphasizes the "permeability" of GZ as it responds to pressures of appropriateness and legitimacy within its environment, often in conflict with the stated goals of reform policies. In this regard, I utilize foundational tenets of institutional theory, particularly isomorphism, legitimacy, and coupling.

7.2 The Regulatory Pillar

According to Scott, the regulatory pillar is concerned with "rule-setting, monitoring, and sanctioning activities" through processes that "involve the capacity to establish rules, inspect others' conformity to them, and manipulate sanctions", such as rewards or punishments (Scott, 2008, p. 52). In particular, the role of coercive power or force is emphasized in this pillar. As such, findings that belong to this pillar center on the "stable system of rules, whether formal or informal, backed by surveillance and sanctioning power" (Scott, 2008, p. 54) that comprise the NCEE. The structure of a culminative exam (and its system of rules) has dominated Chinese education ever since the creation of the Imperial Exam (Elman, 2000; Niu, 2007; Yuan, 2001). In my analysis, however, 'rules" are not limited to government laws and policies of education, but also the coercive "rules" of the Exam - the way the NCEE is structured, executed, and how success within the NCEE system is determined. Thus, this pillar also contains "constitutive" rules that "construct the social objects and events to which the regulative rules are applied" (Scott, 2008, p.65). By adhering to these "rules", stakeholders participate in the NCEE system and gain legitimacy. The issues of scores, ranking, and processes that support and monitor these outputs belong to this pillar. In addition, sanctions and rewards, such as higher education opportunity, class ranking and school funding, are also included.

Within this system, the state is a key "rule maker, referee, and enforcer" (Scott, 2008, p. 53); neo-institutional studies on China stress the important role of the state as the main agent to regulate, certify, and sanction organizational behavior (Chen, 2010; Hasmath &Hsu, 2014; Liu & Ting, 2016; Nee & Opper, 2012; Shenkar & Glinow, 1994). The state is in charge of the actual Exam itself, and all stakeholders rely on its top-down control to conduct and monitor the "fairness" of the NCEE, as seen in section 5.4.5, Chapter 5. In this aspect, the State is powerful, and it is the instrument by which all stakeholders rely on as a coercive force to uphold the NCEE against cheating and corruption. In addition, the centralized control of entry into higher education underscores the government's ability to manipulate sanctions, rewards, or punishments for students taking the NCEE, particularly through control of university admittance (section 5.1.2, Chapter 5), and a system of quotas (section 5.4.2, Chapter 5). All educational policy derives from the state, underlying the fact that the authoritative control and coercive power of the state makes it a powerful agent for granting legitimacy (Scott, 2008; Liu & Ting, 2017). Thus, the state is a key agent and enforcer of the regulatory pillar of the NCEE. However, state control and its legitimacy is not monolithic, but rather, negotiated according to the localized situation of GZ school (illustrated in section 5.3.2 of Chapter 5), bringing to bear the conflict between national/local interests that define the history of Chinese education (Cheng, 2009; Elman, 2000; Thorgenson, 2002; Unger, 1982). This draws into question the "unambiguous and uncontested" (Hirsch, 1997, p. 1712) rule-like nature of the regulatory pillar as defined by Scott.

7.2.1 A System of Scores

7.2.1.1 Higher Education Opportunity

Exam scores are the regulatory and governance feature of the NCEE and the NCEE system; they determine the way the game is played, the goal of the game by "constraining and regularizing behavior" (Scott, 2008, p. 52), and serve as indicators of achievement for stakeholders. Exam scores are an all-encompassing feature of Chinese education from grades 1 to 12, and a student's NCEE score is non-negotiable in regard to assessment – a student either reaches a university tier-determined cut-off score on the NCEE, or does not. In this way, scores allow each individual to be ranked within a government-regulated national system of higher education opportunity. Thus, government control of higher education opportunity, and the restrictions imposed through quotas also belong to the regulatory pillar.

Through their control of this opportunity, scores have sanctioning (reward) power. Students refer to their score on the NCEE as *the* determinant of their future university choice and major; as stated by a 12th grade student, "Where I go depends on the score...." (section 5.1.2.1) The influence of scores extends well beyond university, since the university a student attends determines future job opportunity. Through a hierarchical structure of opportunity, the importance placed on achieving a high score coerces students (and their parents) to focus their attention, efforts, and resources on a good NCEE result, often to the detriment of other goals and skills.

Despite an adherence to "play by the rules", the issue of scores garners varying reactions among stakeholders. Both teachers and students complain about the "narrow" evaluation of the university system determined by scores, and parents criticize the "score-

focused" approach of GZ, claiming that the school is "seeking to be number one in X district" or that the "school is struggling for its own benefits" (section 5.3.9.1) Nonetheless, teachers focus on preparing students to achieve a high score on the NCEE, employing techniques such as rote memorization and continual practice exams in 12th grade as a means of review (section 5.1.8). Parents engage in shadow education to improve their child's exam scores, and speak about (future) selection of courses based on scores. From a realist perspective, a high score on the NCEE is the overriding concern of stakeholders, illustrating an instrumental logic to their actions, another defining feature of the regulatory pillar (Scott, 2008).

7.2.1.2 School Funding

Besides the reward of future opportunity for students, scores determine educational resources for GZ high school; NCEE scores are an assessment of school performance within a ranking system under government control, as explained in section 5.1.2.2 on standardized evaluation. As explained by the director, "the school gets ranked as a first-class or a second-class school, according to their education quality; the government gives different funding according to these ranks." This ranking is viewed by administration as an "actual [physical] achievement of the school", and the competition of resources (sanctions and rewards) establishes and enables a shared goal for teachers and administrators. Again, an instrumental logic is stressed here; the reality of the situation is that GZ must continue its top ranking to ensure access to funding and the resources (top teachers and students) that its reputation engenders. Thus, the coercive nature of tying school performance and quality to NCEE scores creates a "feedback" loop that ensures GZ's adherence to a standard of "quality" that is centrally determined and

legally controlled through educational policies of decentralization and funding. It defines both opportunity in the present, and opportunity in the future.

7.2.2 Ranking and evaluation

Through rewards and sanctions, NCEE scores translate student learning into a regulated system of opportunity; this system is defined by ranking that is hierarchically structured and under centralized control and coordination, from the district up to the national level. Ranking functions "outside" of the school in that a student's national NCEE ranking determines access to higher education opportunity, which itself is ranked, as explained by a 10th grade teacher, "going to a better ranking (university) means you have had a better performance (in high school)." "Inside" the school, ranking is determined entirely on monthly test and exam results, and decides which class a student is placed. Just as a higher placement in national ranking determines the quality of opportunity, status, and resources a student has access to, internal ranking by class similarly determines the opportunity, status, and resources that students have access to in GZ.

Students are regularly evaluated (and ranked) throughout the 12th grade; in particular, there are four main exams: the mid-term, end of the semester (for the first semester), and the 1st and 2nd mock exam, as explained in section 5.1.8, where the importance of predicting scores and performances are highlighted. According to the viceprincipal, "the students have to be evaluated and compared with the other students. So, I cannot make any mistakes." This statement underscores an important aspect of ranking – comparison with others necessitates a constant system of evaluation and inspection, both of which define the regulatory pillar (Scott, 2008). As stated by a 12th grade student,

"they use scores to judge if the student has done a good job or if she or he has fallen behind." Functionally, the mid-term and end of semester exams help to establish areas of improvement for students (through identifying weak and strong areas). In a comparative sense, the exams are graded against the entire district, rather than the school. Thus, they are also the first "prediction" for student ranking and achievement in the NCEE. In addition, these exams also serve to predict GZ's ranking within X district as well.

Although teachers are not ranked by scores at GZ (or, according to stakeholders, held accountable through sanctions), they are nonetheless evaluated by scores, illustrating the importance of monitoring associated with this pillar (Hirsch, 1997). Within the 12th grade, student exam scores indirectly assess a teacher's competence in meeting curriculum (review) goals. According to the section chief in charge of teaching quality and management, the purpose of multiple exams within 12th grade is that "they [exams] give us a standard evaluation for education that's about the quality of our education." In section 5.1.7, 12th grade teachers have differing opinions about the ability of NCEE test scores to reflect their teaching; as stated by a language teacher, "my main concern is that my teaching cannot be instantly reflected in the test score." Meanwhile, parents place indirect blame on teachers for low student scores (section 5.1.7.1) For teachers at GZ, scores may not engender financial sanctions or rewards (considering a ubiquitous pay-byperformance standard that characterizes teaching in China); however, they are a form of surveillance, from both parents and the school (and ultimately, the district government) and there are less "direct" sanctions, such as failure to be promoted to 12th grade.

7.2.2.1 Monitoring

In the 12th grade, students are subject to constant review of NCEE material, practice tests (evaluations), and correction of mistakes, as seen in a student's statement regarding his classes in the 12th grade: "we learn a unit, we have a test about this unit...[and] after we take the test, the teacher will give some class time to talk about this test and help us correct [mistakes]." In this way, their entire learning within 12th grade is monitored. As explained in section 5.3.3 of chapter 5, all classes are for review of NCEE material – "it is like a complete review of what they have learned in senior high school", and class time is geared solely toward preparation for the NCEE – "In 12th grade, you are studying for the Exam. It's a different purpose. You have to improve your examination [testing] skills." An emphasis on review is what distinguishes the 12th grade from other grades in high school. Also, as students in the 12th grade repeatedly take examinations and practice tests, parent-teacher meetings are a crucial element in maintaining an emphasis on score-based performance, where topics are focused on exam results and student performance and scores (section 5.1.6). Often, the importance placed on these skills means less importance on comprehension of material than ensuring "the right answer," another example of the clarity of the "rule" of scores. This is explained by a math teacher, who stated the necessity of repeating material from the 10th and 11th grade, even if students do not understand the material, so that students can get a good score (section 5.3.3). Or, as pointed out by a language teacher, "It doesn't matter if they really understand it or not; they just want a higher score."

Through the procedures of review and repetitive exams, student learning (behavior) for the NCEE is "regularized"; in addition, mock exams during the second

semester mimic the conditions of the NCEE (testing times, testing environment, etc.), indicating a high level of predictability, or as Scott refers to in his framework, "expedience" (Scott, 2008, p. 51). As referred to by an English teacher, "Everything, the types, the time, the level of difficulty will almost the same" so that students feel able to take the NCEE. Mock exams also act as a form of surveillance and expedience for the Ministry, ensuring a prediction of a student's NCEE score and placement at the national level.

7.2.3 The Regulation of Knowledge

In order for rewards, ranking, and monitoring to exist and function in education through the NCEE, knowledge (curriculum content) is both determined and delivered based on relevancy to the Exam, as illustrated by data in section 5.3.1. The knowledge of the NCEE, determined at the national and district level, is fixed and gradated. As stated by the principal, "The requirements [for the class] must always be these, because of the examination papers the government gives us. If the government does not approve of content, then it will not be tested." Teachers also attest to the use of nationally mandated curriculum for 12th grade, as stated by the director – "All of our teaching targets are based on the NCEE, the requirements for the examination. We can go beyond the college entrance exam [in content], but actually, we just focus on the requirements of the college entrance examination." This content is highly regulated and top-down controlled, indicating additional monitoring and surveillance provided by centrally controlled curriculum within the NCEE system. The Ministry of Education produces a national curriculum plan, including textbooks and guidelines on curriculum management and lesson hours. At the provincial level, educational bureaus are charged with 'fitting'

national curriculum objectives into the local context. Once approved by the Ministry, the provincial plan is passed onto district-level bureaus. In addition, topics for a subject are based on the content of nationally approved textbooks, even though they are 'tailored' to fit local context at the provincial or municipal education commission level.

7.2.3.1 The Issue of Science

In addition to fixed curriculum content, regulatory elements associated with knowledge also occur in government control of university majors, which have always been aligned with national development goals; in this respect, science majors have been promoted since the adoption of the Soviet model in 1949 (Yang, 2001, Li & Piachaud, 2004). The selection of science stream subjects in the NCEE ensures a student more opportunity to enter into majors at top universities; as commented on by teachers, parents, and administrators that choosing science subjects allows for greater choice of entrance into top-level universities, as well as a greater choice of majors (section 5.3.5.1). Through a structure of rewards and institutional arrangements in both higher education and industry that has been repeated for decades (consider the funding of 211 and 985 institutions), science as "preferred" knowledge has itself become institutionalized in the regulatory sense.

7.2.4 The Complex Issues of Rules and Authority

According to Scott, regulatory elements and processes provide legitimacy to organizations who operate within and conform to legal requirements and rules (Scott, 2008). Akin to a "Weberian legal order," procedures and requirements are backed with sanctions and noncompliance is punished (Hirsch, 1997). In data, GZ demonstrates clear noncompliance in section through its use of foreign textbooks in its English classes,

rather than government-mandated curriculum and textbooks, as seen in section 5.3.2 of Chapter 5. This aligns with historical studies in education that challenge notions of a monolithic powerful state (Thøgersen, 2002; Unger, 1982), but it also challenges a key tenet of Scott's theory about the regulatory pillar. According to Scott, the regulatory pillar elicits legitimacy by emphasizing conformity to rules. This suggests that to GZ, the resultant reward of high scores (consider that one of its students scored #1 score in English for the district exam) and subsequent high ranking garners greater legitimacy with parents and students, is greater than the legitimacy of adhering to the rules, which is illustrated in the principal's comment that "no one comes to inspect me."

One possible solution to this conundrum is a suggestion by Schneiberg and Clemens regarding a "public" and "private" method of research regarding the regulatory pillar:

A predominantly regulative institution, built on coercive mechanisms of law and control of critical resources, should produce a public transcript characterized by conformity and, as discourse becomes less accessible to public sanction, private transcripts full of complaint, opposition, strategic dissimulation, or ridicule. (2006, p. 213)

Within data, there are many examples of "opposition"; the statement that "no one comes to inspect me" is a clear example of this. In addition, the school "rule" about not engaging in shadow education is neither followed nor enforced. As both of these examples of deviance relate to rules, they belong to the regulatory pillar. So, also, are the complaints about GZ's score-focused approach by parents and students and the denigrating effects on students' character and sense of morality; as stated by a 10th grade teacher, "the NCEE only focuses on the final marks of students. It does not have any direction or relationship with a moral education." Similarly, parents complain about how

education at GZ is "not enough" and therefore shadow education is necessary. Utilizing the perspective of "public" versus "private" brings the importance of scores to the regulatory pillar into greater focus, emphasizing their authoritative, rule-like nature. The authority of the score is unopposable, unlike the nationally mandated control of classroom curriculum and teaching, or GZ's school rule that students should not engage in shadow education.

7.3 The Normative Pillar

While the regulatory pillar is characterized by an instrumentalist, rational-choice form of logic, the normative pillar is best characterized by a logic of appropriateness (Scott, 2008). Normative elements specify proper ways of action, define the type of goals that are appropriate, and contain ideas of what is fair or just. In this way, they also legitimate specific "means for pursuing valued ends" (Scott, 2008, p. 55). Thus, values are an important aspect of the normative pillar, as they define what is "preferred or desirable", as well as create "standards to which existing structures or behaviors can be compared and assessed." (Scott, 2008, p. 54). To Scott, the normative is also associated with feelings and emotions; when norms are broken, there are feelings of shame and disgrace, whereas adhering to them brings feelings of pride and honor (2008). Thus, the normative is marked by a type of inner, as well as outer, evaluation. Evaluation, however, often depends on one's role, in the larger social sense of one's position, or in a narrower sense of professionalism. Hence, this section combines both aspects of social position and also professional norms.

In China, Confucian philosophy (and Confucian education) is composed of an extraordinary amount of norms and proper social relationships; consider Confucianism's

emphasis on hierarchy and rituals to define and maintain relationships, and the cosmological order of "Heaven, Earth, Emperor, Parents, and Teachers" (Wu, 2016). As demonstrated by data, there is a hierarchy at GZ based on authority – government, principal, teachers, and students – as well as a hierarchy of parent/child within families. This hierarchy carries normative elements in that one has to fulfill a role and obligations; moral elements of Confucianism still exist, from the hierarchically traditional relationship of students "following" the teacher, to the moral duty of teachers for the behavior and character development of their students, discussed in section 5.3.8 of Chapter 5. Thus, the normative pillar contains many aspects of Confucianism; however, Confucianism (or Chinese culture) has little analytical power; rather, it provides a cultural "ideal" or justification⁹¹. In regard to an institutional analysis of the NCEE, I treat references to Confucianism or Chinese culture as indicative of underlying elements of taken-forgrantedness. Nonetheless, normative elements represent a significant part of data findings. As stated by Hirsch regarding Scott's definition of the normative pillar, the lion's share of work done within sociology on institutions belongs to the normative, as it is "the exclusive home for the disciplinary concepts of socialization, norms, values, and social context" (1997, p. 1713).

In addition, the NCEE is a meritocratic institution – rewards are based on effort, and through effort, the nation is able to "select talent" for its future development. Vickers and Zeng point out that one of the fundamental characteristics of education since China's Reform Era is the promotion of meritocracy in educational discourse (2017). This meritocratic ideal is the basis of the normative pillar of the NCEE, as well as "voluntary"

⁹¹ The theoretical idea behind this approach is referred to in section 1.2.3 of Chapter 1.

compliance in the NCEE system. As noted by Weber, "selection of persons, with pressure upon the individual to prove himself, is an infinitely deeper way of 'toughening' man than an authoritarian institution" (Gerth & Mills, 1948, p. 18). The many ways that participants "prove themselves" and the responsibilities they have to do so are examined in this section.

7.3.1 Student Norms

7.3.1.1 Persistent Effort

Upholding the NCEE's meritocratic system are values of hard work and effort, discussed in section 5.3.9.1. Although some 12th grade students downplayed the amount of work and study necessary, they all acknowledged the importance of effort needed to do well in the NCEE. Effort is seen as a form of self-discipline; as stated by one student, "I think the most important thing we learn is how to face something that is difficult," with "difficulty" referring to the prolonged effort of review needed in 12th grade. A teacher referred to effort as "patience," in that "you have to be self-controlled" through the process of continuous exams and reviews. One parent described this preparation for the NCEE as "an exercise in resilience," and how, after continual effort, "your character might improve, because you've learned how to pursue something." Through the process of the NCEE, a student gains a kind of self-knowledge as well, since "it's a time that we're practicing ourselves." Or, as a teacher explained, the review process is "a way for students to improve themselves, to make themselves more complete." In section 5.5.5, teachers speak on the "fragility" of students nowadays in their inability for hard work, compared to their own experiences. These statements serve to illustrate a focus on skills and "desirable" traits that lie apart from the content of the NCEE; they are normative

examples of proper behavior and attitude. A pervasive view among administrators and teachers is that these norms are decreasing – students lack "a sense of honor" or "resilience." Thus, individual strengths or character-building through the process of education serve to justify a set definition of skills necessary for the set procedure of review and examinations that comprise education in the 12th grade, and ultimately, success in the NCEE.

7.3.1.2 Character Training

To participants, there is a distinct difference between the knowledge of the test and the knowledge of character, though both are developed through schooling (section 5.3.9). Having "character" is not only for the NCEE, but for society at large. In this way, its legitimacy is tied to the promotion of social welfare, meaning it is based on an "evaluative value system different than technical, means-end values" (Suchman, 1995, p.170). Besides "internal" skills and traits, there are "external" aspects that center on relationships, proper communication, and social duty, referred to as *wenning* (文明), which translates into "civilization." As explained by a 10th grade teacher, "*wenning* is something they get after education." Understanding refers to a type of moral training or socialized behavior that enables civilization through an orderly society. Thus, education is composed of a normative element where action is guided "by a moral framework that takes into account one's relations and obligations to others" (Scott, 2008, p. 68) with social consequences; this can be seen as parallel to the Confucian value placed on the "cosmos as moral order" where "society and its people prosper by obeying the cosmic Way, or the Mandate of Heaven" (Wu, 2016, p.725). Parents expressed an expectation that school, or education, should provide character training; "education can solve some

problems and bad habits in children," while another described the purpose of education as the promotion of "good behavior" so that people can live together "comfortably and easily," again underscoring the importance of social relationships. Meanwhile, teachers and administrators referenced student activities that foster "benevolence and cooperation."

To teachers, students, and parents, these aspects of character are more important than what is learned in the classroom; as stated by one parent, "personally, I think that these are more important than knowledge." In addition, students must be responsible and help one another; in the words of a teacher, "they have to work together, love each other, help each other. It's like a community. This is also an important quality when they grow up." These qualities are reinforced through identity and responsibility to one's Class, as seen in sections 5.2.4.1 and 5.2.5. Thus, the results of character education, though individual, occur at the collective, or social level. As data illustrates, the collective is referred to by numerous stakeholders as a defining and "good" feature of Chinese society - "If collectivism decreases in China and individualism increases, this will be negative for China." Ultimately, character education serves to reinforce social norms of "civilized" and "educated" behavior that range from proper feelings of gratefulness to superiors to simple rules such as obeying traffic laws (section 5.3.9.3). Thus, education, especially achievement in education, serves to reinforce the social and collective. As stated by the director of teachers, "First you have to improve yourself, after that everyone can improve."

7.3.1.3 An Obligation to Help

The importance of the social and collective is underscored by another norm

among students where they are obligated to help one another. To many students, competition was seen as a positive force of motivation and peer support, as seen in statements by students that they "help each other improve" because "we are classmates." Both students and teachers spoke negatively of students who do not study together with their classmates or refuse to share their notes as "selfish." Meanwhile, the teacher's story regarding "rebellious" behavior in section 5.1.4 (where students study secretly at home) also highlights a normative element, in that studying must be open and shared with everyone else. Thus, the social role of "classmates" entails a normative responsibility and obligation not only to help each other, but to study together; it is a collective or group effort. Considering the strong emphasis on class identity, and the fact that ranking is viewed by teachers and the school as "collective" in nature since it rests on notions of peer support and a collective strength through diverse individual strengths, it is no surprise that classmates are obligated to one another. Yet in the reality of a hierarchical, ranked system like the NCEE, there seems to be little in the way of "collective" benefit *outside* of one's group (or class). Teachers and administration, regardless of what they say, recognize and reinforce an "elite" teaching and learning in Class One, which garners the best teachers and resources (as seen in section 5.2.3.2). The norm of obligation to one's peers seems to be in conflict with the entire NCEE system of individualized rewards.

7.3.1.4 The Need for a High Score: Social Mobility

Although participants express the importance of collective behavior and obligations of help among classmates, students face normative pressure to achieve a high score on the NCEE, from both parents and society: "the only thing that makes me

nervous is when I get back my exam and my mom might blame me for my score." Parental pressure is due to a high level of expectation, as seen in sections 5.1.9.1 and sections 5.1.10.2; most students in Class One, the top class, expressed anxiety about achieving a high final score, pointing to an internalization of pressure. As expressed by one student, "I often think I am not hard-working enough. When it comes to the NCEE... I have a feeling that my parents and my teachers are expecting me to get in the top five [universities] or something." Besides parental expectations, there is the social norm that a family's achievement is reflected in a student's achievement. Thus, there is an obligatory relationship between students and their family that runs both ways; the family supports the student and the student supports the family through high achievements. This is seen in statements that "Chinese families put all their money on the child" and "in the back of the student is the family" (10th grade teacher). Teachers also recalled pressures from their parents during their experience with the NCEE. As an 11th grade teacher explained, "for my parents, the NCEE was a kind of hope, but for me, even hope was a kind of pressure." To this teacher, the need to score high on the NCEE was a way to improve her family's situation. Meanwhile, a parent who came from a rural area spoke of the difference between her situation with the NCEE compared with her son's, where it is "no longer necessary to improve (his) life condition."

Thus, behind the norm of getting a high score, there are other norms, for example, a responsibility for social mobility. Also, there is a Confucian norm that children must honor their parents. Teachers attest to how students are driven by their parents' desires to achieve entry into top universities, as illustrated by a senior teacher of Class One who spoke of the enormous pressure facing her top student – "so the mission of their daughter

was to go to Peking (Beijing) University." Meanwhile, the father of a 12th grade students stated, "as we both graduated from university, we expect her to go to a better university, like a top university, like the 985 universities." This statement in particular illustrates an almost unquestioned value-judgement that what is at the top is best, and therefore, worth going after, which is certainly illustrated in statements regarding Class One, examples of parental and societal pressures, and teacher statements about "traffic jams" at the top. When a large number of norms and values intersect and uphold one another, they provide a reinforcing moral framework for action that may result in greater resistance to institutional change (Scott, 2008).

7.3.1.5 Science Should be Chosen

In line with a high score and achieving what is at the top, students also have normative pressure to choose science courses over Fine Arts in high school, as it creates better opportunities for top majors and top universities that define the unequal distribution of resources in China's higher education system (Chan &Ngok, 2011). At GZ, there is a normative value placed on science as well, in that one *should* study science, particularly as "most parents want their child to learn science." This value is reflected in the majority of 10th grade parents' opinions toward their child's future choice of subjects in NCEE reforms, as discussed in section 6.9; "I am happier if my child prefers studying science" while another parent remarked that although it depended on his daughter's ability in science, "*of course*, we would prefer that she chooses the science stream" as if preference for science was a given.

An instrumentalist (regulatory) logic is behind many parents' bias toward science, as seen in section 5.3.5 of Chapter 5. For example, teachers claim that parents prefer

science since "science is better for future employment" and that "you find more majors at universities; there's a wider choice than if you learn Fine Arts." Nonetheless, there is an inherent value judgement in this, as higher economic opportunity also means higher reputation and status. Thus, besides economic considerations, there are broader issues of status and mobility as well. In addition, students are under a normative obligation to obey their parents, even if their interests are for Fine Arts subjects. This can be seen in a 12th grade student's comment that she chose science "because I am coming from a family where my parents are both engineers" (section 5.3.5.2). According to one teacher, this choice often results in arguments between her students and their parents. In addition, science is aligned with national development goals; besides familial norms, there are norms to the state, which are reinforced through the fact that education "cultivates the talents of individuals and how they can be useful." Thus, normative values toward science underlie and support the institutional government and university bias toward science in higher education.

7.3.1.6 Being Emotionally Prepared

In the process of preparing for the NCEE, students are continuously monitored and tested, not only on specified knowledge/content, but also on their emotional state or mood, as discussed in sections 5.1.9.2 and 5.1.10. This was reinforced by the principal during a 12th grade parent-teacher meeting; "although the scores are important, what is more important are aspects of emotional preparedness," suggesting a norm for students to be emotionally prepared for the NCEE. Besides academic assistance, students must ask for "help emotionally" as well, since low exam scores can lead to a "negative image." In order to combat "a negative image" students must keep a "balanced mood", or a

"balanced *xintai*." According to students, the idea of *not* being emotionally prepared results in nervousness and an inability to do well on the NCEE; thus, a balanced *xintai* has normative value in regard to Exam success. This is seen in a comment by a 12th grade student regarding former GZ students who did not achieve a high score on the NCEE; "this wasn't because they didn't have good abilities, but it was due to their mood, their [personal] condition – they were nervous about the result."

Both teachers and students place importance on *xintai*, and the cultivation of a balanced xintai requires being truthful about one's abilities and the results of one's work, as stated by the moral teacher: "[students] need to evaluate themselves correctly and face the results of an examination with a balanced, positive *xintai*." Thus, a student must be honest about her abilities and equanimous regarding results, which are norms of behavior. This is not about academic mastery, however, but about the unpredictable nature of the NCEE content, which generates feelings of worry and nervousness - as one student commented, "If we get a question we don't know, we go crazy. And we will not get a good score." For parents, teachers, and administrators, too, there is a belief that cultivating a "balanced" xintai can counter worry and nervousness (refer to section 5.1.10). As a form of normative behavior, the importance of a balanced *xintai* supports the high-stakes nature of the NCEE by placing the issue of success on the strength and quality of a student's emotional preparedness, inner control, and self-honesty. The norm of having a balanced *xintai* illustrates that socially, the emotional pressures and challenges that students face are recognized, and to an extent, validated. Nonetheless, students are tasked with achieving a high degree of "inner control" both academically and emotionally.

7.3.1.7 Following the teacher

Students, however, are not tasked with bearing the responsibility for mental and emotional control solely on their own; they must listen to, or follow their teachers, since teachers provide a "path" for learning, as discussed in section 5.3.8. In particular, this path involves recognizing that one has made mistakes, as explained by a 12th grade student, "I follow my teacher, and correct my mistakes" and the principal's statement that "a teacher has one way" while a student has a "wrong" way. In the norm of following the teacher, the teacher's authority of knowledge places them in a position above students, as in the vice-principal's statement that teachers have "a high level of experience" and therefore, students must listen to them. In statements by administrators and teachers, following requires humility and modesty, the former so that students will listen to teachers, and the latter so that they are willing to ask for help – "this student wasn't humble in his attitude towards learning" and "[you should] welcome your teacher's advice and be willing to get help, be modest." In addition, "listening" is esteemed more than "understanding" – "it doesn't matter if you don't understand, it's still better than not listening." These statements reveal a complexity of norms and values; students must be humble, obedient, rely on their teachers, and not question what they are told, all of which will led to success on the NCEE (and most likely, an unquestioning attitude toward the NCEE system). Most notably, this norm emphasizes the hierarchical relationship between teachers and students, which has been culturally upheld for centuries through the Confucian cosmological order of "Heaven, Earth, Emperor, Parents, and Teachers" (Wu, 2016). However, as noted by Wu in her study on educational discipline in China, "Historically, such teacher-student relation is not conceived as authoritarian, however,

but seen in an affective light where filiality and mutual caring is exercised and where proper roles of each party are reinforced" (2016, p.728). Hierarchical relationships are characterized by reciprocity, and thus, the norms that students have a link with, or are "reinforced" by, the norms and responsibilities of teachers.

7.3.2 Teacher Norms

7.3.2.1 The Importance of a High Score

Similar to students, teachers also expressed a normative pressure to have their students achieve a high score on the NCEE, as discussed in section 5.1.7. This stems from pressures by parents; "in this school, the parents generally have higher demands from the school, higher expectations from the school, so that's how the pressure comes to teachers," and also living up to high expectations from administration (section 5.1.7.2). In addition, teachers are obliged to please or obey parents, as can be seen in teachers indirectly telling parents the ranking of their child, even though the government has asked school to not engage in ranking, only scores (section 5.2). Teachers express a normative responsibility toward their students' achievements, particularly as parents are prone to blame them for their child's low performance (section 5.1.7.1). In this regard, teachers report a fear of disappointing parents, and "feeling badly" about not doing their job well, which illustrate feelings of shame, guilt, and an internalization of self-blame, all characteristics of the normative pillar. This fear also extends to disappointing students; teachers provide a "path" for learning, and are therefore responsible, as seen in the story of a teacher who was accused of being "irresponsible" because she told a student that scores "do not matter." However, this fear of disappointment is also due to the highstakes nature of the NCEE in determining future opportunity; "Because you know that

some people (students) are not rich, and they need this high score to make their life happy."

In addition, teaches face normative pressure to produce high scores from the school itself due to the ranking and reputation of GZ, especially given the primacy that administration attached to scores. According to data from stakeholders, teachers are not materially punished for low scores, yet there is normative punishment in that shame is internalized, as seen in teachers' statements in section 5.1.7.1. For teachers, high scores must also maintain the high ranking of GZ; as one teacher commented, "there is a lot of pressure in the school to have a high score, to rank first in X district." Although teachers are not sanctioned (materially), they are normatively obliged to help GZ maintain its ranking, as explained by a teacher, "Because I may be the first one in the history of the school to fail, which would be shameful for me." In a way, this norm is self-perpetuating. Teachers have to maintain high scores to ensure that GZ maintains a high ranking. The more GZ maintains, the higher expectations both parents and administrators have.

7.3.2.2 Passing on the Way

Teachers refer to their obligation of teaching students as the "passing along" of knowledge in section 5.3.8, or what is referred to as to 传道 (*chuan dao* – passing the Way); in the words of one teacher, "What you learned, the knowledge, you need to tell them. Of course, you need to tell them how to learn; it's the same." Thus, besides content knowledge, teachers are responsible for teaching how to learn subject content. For many subjects in high school, and especially in 12th grade, "how to learn" involves rote memorization. Numerous references to the importance of memorization are seen in data section 5.3.4, from the principal's speech urging students to acknowledge how

memorization "strengthens" knowledge in the subject of geography, to student accounts that memorization is a "kind of a method to help us learn." Within the 12th grade, review, memorization, and rote learning can be viewed as "technologies" (ways to accomplish a task) to help students pass the NCEE, particularly within the Fine Arts stream, where, according to a former history teacher, "[There is] content you have to remember by heart and maybe try to understand." These "technologies" are not only procedural, but also normative, as they again reinforce the authoritarian and hierarchical relationship between teacher and student. In addition, the heavy reliance on content for the 12th grade created by the district plan (section 5.3.1) also reinforces a norm of teachers "passing down knowledge" from the government.

The issue of rote learning and memorization is complex, particularly given the norm that students must "follow" the teacher, and teachers must "pass the Way." Within such a context, interpretation is not encouraged, since "all answers are in the textbook." Interestingly, the subject that encourages interpretation in the NCEE is language (Chinese), due to recent reforms that stress the application of memorized classical characters for essay writing. According to the principal, GZ has begun to focus on improving its language scores in the NCEE, as the subject has become more difficult for students. Thus, teaching and learning based on reviewing, memorization, and rote learning not only dominate learning in the 12th grade, but they also help to reinforce the exam-based nature of the NCEE system. As stated by Colyvas & Powell, "Once the legitimacy of an activity is high," such as the repetitive nature of review, memorization and testing in 12th grade, then "norms are compressed into succinct pre-set routines and procedures" (Colyvas & Powell, 2006, p. 325). Combined with the norm of maintaining

high scores, it is understandable the difficulties that *suzhi* (quality) reforms face in implementation.

7.3.2.3 Emotional Care

In order to handle the large amount of pressure that students face with the NCEE, teachers must guanli (管理) students, a verb that means "to care for", but that also has connotations of a managerial, parental form of care and control, as illustrated in a teacher comments such as, "we should nurture our students" and "teachers have to console their students." One form of "nurturing" is to help alleviate the pressure of students, which sometimes involves encouraging students to persevere, even against one's better judgment, as demonstrated by the comment of one teacher who "lied" to a student to provide encouragement; "you need to work harder and your improvement will come, but even I don't believe that." As shown in data, teachers are obligated to encourage students and motivate them, even if it contradicts their own personal feelings. The importance of caring this, especially in the 12th grade, is due to a worry that students may be "burnt out" (which is seen as a greater problem than motivation), yet it is also one that administration draws attention to and embeds through regulations – teachers are told by administration to "pay attention" to students' moods, and 12th grade teachers speak of calming or pacifying student fears a primary responsibility. In addition, administration provides assistance to teachers by providing psychologists "to help students with how to study and how to adjust their moods." Thus, emotional care is routinized in the duties of 12th grade teachers, as shown in the statement by the head teacher of 12th grade, "we help them to solve these emotional problems and we can teach them or lead them to go through such a process as they grow in experience... so that they can be in a better state to complete this

year's learning task." Despite the pedestrian outcome (or goal) in this statement, the affinity and close bonds formed between teachers and students in the 12th grade, attested to in data, illustrate the importance that teachers place on their obligation to "*guanli*."

7.3.2.4 A Moral Guide

Although students are tasked with controlling their "mood" or *xintai*, the responsibility of helping students achieve this ability to control or balance one's mood lies with teachers, as discussed in data section 5.3.8.1. Again, the goal of this is related to scores, as seen in statements about students being too worried or concerned "on the big day (of the NCEE)." Teachers take this responsibility on themselves, particularly when teaching 12th grade where, "you just need to focus on their mood, to avoid them breaking down sometimes." Although not explicitly stated in data, it seems that teachers provide emotional support to students by passing on correct moral values, and by being a moral guide; "there is a famous saying in China that every teacher is a moral counselor. Yes, you are a moral example." The idea if being a "moral example" can be seen in Chinese articles that emphasize a teacher's duty to remain calm for students, so that students have a sense of security and trust, which is essential for maintaining a good *xintai* (Zhang, 2002). Thus, helping students achieve a balanced *xintai* is linked with character development. Just as teachers are normatively held for the learning achieved by students, they are equally responsible for correcting mistakes in character. As stated by the principal and teachers at GZ, this is an essential part of education, that "every teacher is responsible to pay attention to each student," and that "every student is cared for." In addition, homeroom teachers are responsible for knowing "the character" of their students. These examples suggest that being a teacher still retains very traditional norms

of individual attention and care, as discussed in section 5.3.10; however, the reality of universal education is very different.

7.3.3 Parental Norms

7.3.3.1 The Importance of Material Support

Data from parents regarding support for their daughter or son rarely moved beyond examples of providing a "good environment" for them, largely in a material sense. Considering the traditional responsibility of teachers to provide both emotional and learning support, and to discipline and correct behavior, it isn't surprising that parents seem uninvolved in issues that have to do with the school. Rather, what is referenced was a duty to provide a good "family environment" that had to do with ensuring adequate food, rest, and material needs. This was particularly underscored comparing the changes in material resources that students at GZ have, compared to those of their parents, as seen in section 5.5.2.

All parents provide shadow education for their child, which they view as almost a necessity due to the high competition for top universities and the lack of individualized learning at GZ, as noted in section 5.4.2. To some parents, engaging with their child in non-academic activities, such as calligraphy, or discussing literature, helped to "lower the amount of stress and pressure" on their child during 12th grade. Numerous parents reported that they are unable help their child academically, due to the high level of knowledge tested on the NCEE, particularly in math and science, thus, another reason for shadow education. However, most of the parents interviewed or surveyed came from rural areas and did not have access to shadow education during their study for the NCEE,

revealing the surprisingly fast rate of social legitimacy for shadow education, in that it has become a norm, particularly among urban parents, within one generation.

At the 12th grade parent-teacher meeting, the principal underlined the fact that parents "must be involved" in ensuring their child's best performance and effort on the NCEE. However, the examples of what "involvement" means are more in line with a "good family environment"; because of the upcoming mock exam after the Spring Festival holidays, parents are told "not to invite people to eat meals at your home" or invite "guests that will be chaotic." Rather, they are told to pursue these activities "outside of the house" in order to "sustain a peaceful environment at home."

7.3.3.2 Being Involved

Although teachers remark that parents are hardly ever called into the school regarding their child's behavior, teachers note that parents are often involved in chat on online groups about the NCEE, as well as NCEE reforms (section 6.4.3). This was confirmed by the high degree of knowledge about the reforms among 10th grade parents, and also by the uniformity of their answers regarding issues of student choice, and reference to catchwords like "innovation", "creativity", and "individualized choice" when talking about their child's high school education. Whether or not parents embrace these terms is beside the point. A "culture" of being knowledgeable about the NCEE, reforms, and new educational "ideas" (perhaps driven by government propaganda) exists among parents. It also illustrates another form of normative behavior among parents, in that they are concerned and involved in their child's education.

To recap, normative elements are concerned with correct behavior (such as persistent effort or providing a good family environment), appropriate goals (such as a

high score or maintaining GZ's ranking), and contain ideas of what is fair or just (Scott, 2008). However, I do not include findings from section 5.4 on "Fairness" in the normative element, but place them in the next section on the cultural-cognitive.

7.4 The Cultural-cognitive: The Taken for Granted

While the normative pillar contains the social roles and obligations of individuals and organizations, the cultural-cognitive pillar focuses on "shared conceptions that constitute reality and the frames through which meaning is made" (Scott, 2008, p. 57). Thus, the cultural-cognitive pillar emphasizes the taken-for-granted and unconscious aspect of decision-making and action, as opposed to deliberate and self-conscious action driven by normative pressures (Scott, 2008). Action, derived as a response to the objective, external world, is also mediated by "internalized symbolic representations" (Scott, 2008, p. 57). These cognitive frames are what compose culture, thusly, to Berger and Luckmann, the historical events that create and compose culture are not solely the result of rationality, but also occur at the unconscious level (1967). Thus, in regard to institutions, "the official design is created within a received and constructed framework of culture and constraint" (Seznick, 1996, p.274).

Due to the incorporation of unconscious elements, cultural-cognitive elements are often "taken-for-granted" and unquestioned; "routines are followed... "as the way we do things" (Scott, 2008, p. 58). As stated by Mary Douglas, "although the first answer may be framed in terms of mutual convenience, in response to further questioning the final answer refers to the way planets are fixed in the sky or the way that plants or humans or animals naturally behave" (Douglas, 1986). To Douglas, the important reference to nature is because to naturalize an action or belief is to "confer the spark of legitimacy" (1986, p.

52). For an institution, legitimacy gained at the cultural-cognitive level is the highest and strongest type of legitimacy, as well as a significant source of institutional inertia (Meyer & Rowan, 1977; Campbell, 2004).

This section examines the cultural-cognitive elements of the NCEE; as stated earlier, references to Confucianism or Chinese culture may be indicative of underlying elements of taken-for-grantedness, as such references may serve to confer legitimacy to a particular idea (Douglas, 1986). To institutionalists, cultural-cognitive elements are characterized as readily accepted and often unexamined beliefs about procedures, relationships, or society (Scott, 2008). The importance placed by institutional theory on these aspects brings up an interesting point about Confucian and Chinese culture; if the importance placed on ritual (*li*) in Confucianism is considered, since "ritual action... helps reproduce culture, especially the realm of culture that seldom enters into conscious choice, the realm taken for granted..." (Ebrey, 1991, p. 4), then the importance of the cultural-cognitive and the composition of social reality has been both acknowledged and of fundamental concern to Chinese society for thousands of years. "Ritual" is equated with a moral principal in Confucianism, yet "moral" is derived as adherence to an "external code of behavior"; "external" because it is defined by its social meaning and repeated through ritual (Ebrey, 1991, p. 16). As noted by Zucker, social meanings, once institutionalized, exist as a fact, as a part of objective reality that is actually intersubjective and constituted by shared meanings (Zucker, 1991). The supposition that Confucianism recognizes and the importance of a social construction of reality through *li*

(ritual)⁹² is beyond the scope of this dissertation; nonetheless, it underscores the important link between individual, action and society that compose the findings in this pillar. Nonetheless, it is important to bear in mind that the cultural-cognitive, like Confucianism, is not monolithic; the degree to which participants accept or base their decisions on culture is neither uniform nor consistent (DiMaggio, 1997; Scott, 2008).

7.4.1 Fairness

The NCEE is an institution based on meritocracy, and an underlying support for a meritocratic system is the idea of fairness, as referred to in section 5.4. Fairness can also be viewed as a norm, in that the NCEE must be fair (an ideal demonstrated by government efforts and programs against corruption and cheating); however, in regard to data, issues of fairness sit largely within the cultural-cognitive pillar, due to "accordance with a range of appropriate external cultural scripts and assumptions" (Hirsch, 1997, p. 1715). Fairness of the NCEE as a meritocratic selection tool for higher education opportunity is, in data, the main justification for the NCEE, and there is a belief that effort directly determines output. However, upon furthering questioning of the NCEE's "fairness", particularly in regard to rural/urban quotas, stakeholders used terms such as "fairly equal chances", "mostly fair", or "fair because we are Beijingers", revealing the surface nature of "fairness." Nonetheless, there was almost complete agreement in the NCEE as "the fairest system of method that we have found" among participants, (revealing a lack of imagined alternatives), and complete agreement among participants of the necessity for a "selection mechanism" to allocate opportunity, due to the

⁹² Analects 8 "The Master said, "Respectfulness, without *li*, becomes laborious bustle; carefulness, without *li*, becomes timidity; boldness, without *li*, becomes insubordination; straightforwardness, without *li*, becomes rudeness." (Waley, 1989).

exceedingly large population of China and the reality of limited places in higher education (section 5.4.1). In this way, "fairness" is taken for granted; according to Jepperson, taken for grantedness "is distinct from conscious awareness", or if conscious, such as the necessity to control social mobility, is seen as "an external objective constraint" (1991, p. 147). The scripted nature of "China's large population" and the need for a selection mechanism (such as the SAT in the States) refer to the function of the NCEE; thus also do references to the prior purpose of the Imperial Exam. As stated by Jepperson, "persons may not comprehend an institution, but they typically have ready access to some functional or historical account of why the practice exists" (Jepperson, 1991, p. 147). The taken for granted assumption that the Imperial Exam allowed "equality and fairness" is particular noticeable once academic studies in Chinese history are referenced. As historian Benjamin Elman notes about the Exam during the Ming and Qing dynasties for China, "Although the civil service examination was theoretically open to all, its content linguistically excluded over 90% of China's people" (Elman, 2000, p. 247).

7.4.1.1 The Constraints of Fairness: An Urban Bias

Similarly, the privileges of urban residency are also largely taken for granted, although less so among students, in sections 5.4.3 and 5.4.4.1. As stated by a teacher, "I didn't think about fairness or not – I never thought it was unfair; I thought there must be a reason for that [rural residents having to score higher]", bringing to mind the fact that within this pillar, phenomena are not seen as individualized situations; rather, "individuals are not informed this is the way we do this, but are told, this is how things are done" (Scott, 2008, p. 125). Numerous justifications were given regarding an urban

bias, from urban residents having better "abilities" and "quality" to their access to "more kinds of knowledge", answers that harken back to the elite nature of higher education during the 1950's. More importantly, they justify the regulatory function of quotas, revealing the clearest link between the cultural-cognitive and the regulatory. This link is also seen in the fact that scores are justified through the objective and "fair" evaluation of the NCEE, despite the limits of score-based testing that participants refer to in section 5.1.5. Beliefs about the anonymity of a score-based system, where "everyone is treated the same," and therefore, held to the same standard – "you have no way to be recruited by the university if you haven't passed their qualification score" – further entwine the cultural-cognitive with the regulatory pillar of the NCEE.

7.4.1.2 The Orthodoxy of Connections and Corruption

The importance of anonymity and the universal standard of the score in section 5.4.5 are given deeper meaning when contrasted with participants' statements about "corruption" and "hidden movements" within Chinese society, which the NCEE acts as an opposing option (another functional argument). The fact that alternative "power" structures based on *guanxi* and wealth exist is well documented in studies on China (Yang, 1989); however, what is taken for granted is a belief in a corrupt society, that left to other factors besides the NCEE, higher education and future economic opportunity would be determined mainly by wealth and connections. This is strongly illustrated in statements that the NCEE is the "only option for the middle class" or for "average families to improve," or the librarian's statement regarding family background, where parents can arrange "a job, or even a university."

In addition, participants speak of the transparency of the NCEE, where "there's no trick, it's transparent in the daylight" and that "dark movements cannot hide themselves." The belief in corruption among participants is characterized by certainty, a behavioral affect of this pillar (Scott, 2008), as well as a permanency and invulnerability to contestation (Colyvas & Jonnson, 2011). In this way, participants act unconsciously (Scott, 2008) since "the behavior of actors—whether individuals or other social entities— is attributed not to the characteristics or motives of that entity, but to its context or to higher-order factors" (Schneiberg & Clemens 2006, p. 195). Rather than address this aspect in higher education admittance, the existence of an alternate "power" structure alongside the "fairness" of the NCEE system is treated as a given. Interestingly, shadow education and its advantages are not seen as "dark" or "hidden" movements; parents actively share and discuss information with each other through social media, and it sits squarely within the "fairness" of the NCEE.

7.4.2 The Interdependency Between Self and Group

In data, participants emphasize the importance of self with others, sometimes referring to "collectivism" and its role in "Chinese culture." Rather than a dichotomy of individual/collective (Hofstede, 1984), or a rationale of either/or, data reveals an interdependency of self and others, as explained by the director, "first you have to improve yourself; after that everyone can improve." The importance of "everyone improving" was reinforced in a statement by a physics teacher, who spoke of the difference between the American "one-person hero" where " one person is pushed out and made great [the best]," compared to the Chinese emphasis on making "everyone great." This difference was explained as a "cultural thing" (section 5.2.4). However, this

difference may be due to cultural values as well as the impact of Communist mass science that still survives in discourse today (Schmalzer, 2017).

Nonetheless, there are several instances of "group" identity in data, particularly in regard to classes. As stated by the moral teacher, class identity and activities are important to "create a harmonious environment" within the school, and also serve to support the interdependency of self and others. To students, competition within their own class is viewed as a form of motivation, particularly as students support and help one another. Perhaps more telling are student accounts about the influence of "environment" and "atmosphere" within a class, where "I do not have the courage to do my own thing" or "I am affected by others," as seen in section 5.2.3.1 on Class One. As the director explained about the development of character through education, "this process is not realized totally by yourself. You need help and support from other people." These examples, however, do not suggest individual subservience to the group, but rather, a type of interdependency.

7.4.3 Education as a Means of Social Mobility

Education as a means of social mobility has defined Chinese education for centuries (Elman, 2000); in addition, Confucian norms about the necessity of education in society, as well as norms regarding morality and character, uphold this belief. This belief, however, extends well beyond the institution of the NCEE; as seen in stakeholder statements regarding overseas education (as well as the issue of "sea turtles"), overseas education provides significant future opportunity and is held in the same esteem as attending a top university. Therefore, social mobility through education does *not* require taking the NCEE, since *not* taking the NCEE but attending an overseas university is

highly legitimate. As stated by Schneiberg and Clemens, "to locate the role of culture and cognition in patterning social action, one must look for evidence that the same set of taken-for-granted models informs discourse absent the coercive or instrumental constraints of formal institutions" (Schneiberg & Clemens, 2006, p. 211). Stakeholders often reference the option of overseas education; however, students, parents, and teachers all comment on the fact that the NCEE is the "the only way for average families." Thus, for wealthier students at GZ (and across the nation), the NCEE is not the only means of social mobility through education. The importance of this fact is attested to by the principal's insistence that the NCEE represent "Chinese culture" and that students are "cheating themselves" by opting for overseas education; hence, giving the taking of the NCEE a normative slant, particularly as high test scores define so much of the reputation of GZ. Such justification clearly recognizes the dwindling importance of the NCEE among a certain group of wealthy students at GZ. Thus, data call for a more nuanced approach to scholarly claims that the NCEE is upheld by a belief in education as a means of social mobility (Ross & Wang, 2010; Dello-Iacovo, 2009). To stakeholders at GZ, a belief in education as a means of social mobility both upholds and detracts from the legitimacy of the institution of the NCEE.

7.4.4 The Importance of the Top

Another cultural-cognitive element of the NCEE is the traditional belief (again, upheld by a Confucian "order" and model of relationships) that society is hierarchical. According to Wu, "the exemplary ideal legitimates what is called "holistic hierarchy" in which status differentials are not interpreted as structural inequality, but recognized, and largely accepted, as a common order of things." (Wu, 2016, p. 724). Not only does this

"common order" uphold systems of hierarchical ranking that dominate the NCEE, but it gives rise to an unquestioned belief that what is at the top is best, as reflected in data by stakeholders at GZ, whether people, resources, or "atmosphere." As stated by a teacher regarding parental preference for "top" universities (211 or 985), "If you go to that stage, you are better than the lower stage." Besides social status, support for what is at the top involves issues of learning quality as well. Teachers point out the importance of grouping students together by ranking to enable "good students to be better," and parents point out how "the kids in Class One are very industrious and have very good learning methods, so my son learns from them. He can't learn this from the other students when he was in the other classes."

The belief that what is at the top is best is best illustrated through the tradition of emulation; student learning from top achievers or "exemplars" is a common pedagogical technique grounded in a tradition of learning by emulation and imitation (Bakken, 2000). At GZ, high scoring papers of monthly exams are printed and given to students as examples. As testified to by one student, "we learn from them." In addition, top classes are held up as models, as seen in a school announcement emphasizing the need to learn from and emulate "advanced" or higher-ranking classes, by "following their expertise" and creating the same "culture" and "characteristics" of these classes. Besides learning, attitude and behavior can also be emulated, as seen in the principal's announcement at a parent-teacher meeting for student Y to emulate student X's *xintai*. The idea of emulation is cultural cognitive since it involves a type of *mimetic* behavior, especially since imitation is referred to in situations of uncertainty (DiMaggio & Powell, 1991).

However, in order for emulation and hierarchy to exist within education, there must be a belief that learning occurs at different rates individually. Regardless of participant references to the "collective" nature of student learning and maxims about traditional Chinese culture, there is still the belief that, as stated by a teacher, "every student is different in every subject;" otherwise, beliefs (and norms) about the importance of emulation would not exist.

7.4.5 Beliefs of Science

As society, education, and individual achievement is hierarchical, it follows that particular types of knowledge will be seen as "higher" and "better" than others. As stated earlier, there is already a norm that students should choose to study science based on social and parental pressure; behind this norm is a widely-accepted belief among teachers, students, and administrators at GZ that science is top compared to other subjects, as seen in a teacher's comment that people who are good at science "can do everything," and the fact there is no way to compare Fine Arts students "with someone who has more scientific knowledge" (section 5.3.5). The ideal of GZ's "celebrity" astronaut graduate is held up as an exemplar to students. In addition, this belief in science is carried beyond the level of the individual to a national concern, as seen in the director's statement that she is worried about the country being able to maintain a high level of development when the reforms allow students to choose across subject streams, as seen in section 6.9.

The result of this bias is that Fine Arts is seen as a default to science, rather than as a choice. This belief is largely unquestioned, with parents, teachers, and students regardless of subject stream explaining their choice of Arts because they are "not good"

at science. As in the words of a 10th grade parent about their daughter, "but if she really cannot do well [in science], we will encourage her to choose Arts." At GZ, science students, particularly Class One students, are viewed by teachers and administrators as "better"; science requires higher cognitive abilities and is always (according to students) "new," whereas Fine Arts "requires less comprehensive thought than learning science" (section 5.3.4.1) Rather, learning in Fine Arts is "only memorizing" and "boring." In the words of one parent, "in my opinion, it's much easier to have a high score in Fine Arts then in science."

A preference for science is an institutionalized activity since it is a repeated pattern of behavior that evokes shared meanings and taken-for-granted definitions of learning, education, and future opportunities among stakeholders at GZ (Zucker, 1991). The institutionalized nature of science and the mimetic behavior produced through a logic of orthodoxy (Scott, 2008), as illustrated by parents and the cognitive value attached to learning science, place a preference for science in the cognitive-cultural realm (Scott, 2008). This preference has been embedded in government and higher educational policies for decades, but has been historically and socially transmitted as an objective fact since the first Chinese encounters with western technological superiority in the late 1800's (Lam, 2011; Schmalzer, 2009; Yuan, 2001). As Zucker's experiment illustrates, transmission of objective facts to new generations leads to strengthening of an institution (1991); thus, the fact that science is "better" is now taken for granted.

7.5 The Three Pillars and the NCEE

The framework of Scott's three pillars allows for an overarching and yet specific definition of the NCEE as an institution through its regulatory, normative, and culturally

cognitive elements; as a way to recap the previous section, Table 2 lists the elements that compose the institution of the NCEE by associated pillar.

Regulatory	Normative	Cultural Cognitive
Scores	Student Norms:	Fairness of the NCEE
Quotas and "cut off" scores	Persistent effort	Urban bias
School funding	Training of Character	The existence of corruption
Ranking (evaluation)	Helping one another	Interdependency between self and group
Monitoring through exams (GZ's internal, district, and national)	High score and social mobility Choosing science	Education as a means of social mobility
Monitoring through the review process (12 th grade)	Having a balanced <i>xintai</i>	Society is hierarchical; what is at the top is best
Centralized control of curriculum and teaching targets	Following the teacher Teacher Norms:	Emulation Beliefs in science
Teacher training	High score	
Institutionalized science in higher education and	Passing on the Way of knowledge	
education	Emotional care or guanli	
	Fostering xintai	
	Parental Norms:	
	Material support	
	Home environment	
	Shadow education	
	Being "involved"	

 Table 2: The Three Pillars of the NCEE

As can be seen, regulatory elements are significant; considering the high-stakes nature of the Exam (sanctioning power) and the coercive power of scores, ranking, reviews, and exams that simultaneously act as surveillance, this is hardly surprising. The regulatory pillar illustrates the "technical" side of the NCEE, characterized by repeated procedures of evaluation, monitoring (inspection), and outputs (Meyer et al, 1981), and dominated by a logic of instrumentality. For administrators, teachers, and students, the 12th grade in particular emphasizes the regulatory nature of the NCEE, resembling what Thompson refers to as a closed system, with its focus on "outcomes that are predictable" and "the elimination of uncertainty" (Thompson, 1967, p. 6). However, this is merely surface; as data shows, the NCEE is not predictable. Nonetheless, there is a great amount of effort and ritual (such as the vice-principal's constant analysis of exam scores and parent-teacher meetings) to show that it is. Rather than define the regulatory as technical or closed, the regulatory pillar of the Exam within the school is the "task" of both teaching and learning. It emphasizes classroom procedures and routines, codifies knowledge and materials, enables a hierarchical system of ranking for students, classes, and the school, and defines teaching and learning ability, all through the use of scores.

If the regulative defines what is done, then the normative provides justification for how things are done, through "proper" ways of action and definitions of appropriateness. Often, the normative supports the regulatory pillar through its emphasis on obligation (roles) and valued ends (Scott, 2008). In addition, failure to fulfill these norms result in shame and disappointment (Scott, 2008). For example, the social expectation and obligation students have toward social mobility for both themselves and their family upholds the entire NCEE system, while norms of persistence and "following" the teacher

support the repeated exams and review process (pedagogy) of the 12th grade. As a form of behavior, the importance of a balanced *xintai* supports the unpredictable and highstakes nature of the NCEE by placing the issue of success on the strength and quality of a student's emotional preparedness. Ultimately, the goal of a good *xintai* is related to achieving a high score, as seen in concerns about students being too worried or concerned on the "big day" of the NCEE. Students norms are paralleled with teacher norms, in that teachers must "pass" along knowledge, provide emotional care, and present themselves as moral guides. In this way, the roles of student and teacher support one another. Both students and teachers have an obligation to achieve high scores, and parents provide the means for their child to accomplish this through shadow education. In fact, almost every norm is geared toward this one obligation of achieving a high score, revealing a complexity of interwoven norms that characterize normative studies of institutions (Scott, 2008).

Just as norms are interwoven, so are cultural cognitive elements; education as a means of social mobility (meritocracy) has existed for thousands of years in Chinese society and provides historical legitimation to the NCEE; however, this legitimacy would not exist without the belief in the objective and "fair" evaluation of the NCEE. As data reveals, the fair nature of the NCEE is taken for granted by many participants, even though it is justified through the anonymity of a score-based system where "everyone is treated the same." Beliefs of fairness are interwoven with taken for granted beliefs regarding corruption; both of these reify the function of scores, the basis of the regulatory pillar. Similarly, an urban bias upholds a system of quotas and lower university cut off scores for urban residents, again revealing a link between the cultural-cognitive and the

regulatory. Whereas the normative provides justification for how things are done, the cultural cognitive is the basis for why things are the way they are. Thus, the regulatory, normative, and cultural cognitive pillars of the NCEE work together in "interdependent and mutually reinforcing ways" to create a "powerful social framework" (Scott, 2008, p. 55).

The dynamic interaction between the three pillars suggests that within Chinese education the NCEE is highly resistant to change; certain practices, beliefs or outcomes become part of the social order, and occur without substantial effort or mobilization (Strang & Sine, 2002). However, it is the dynamic interaction between pillars that characterizes this resistance, rather than solely cultural-cognitive elements; "when the pillars are aligned, the strength of their combined forces can be formidable" (Scott, 2008, p.62), illustrating the necessity of looking at the three elements "in interaction, rather than in isolation" (Hopkins & Spillane, 2015, p. 447). In regard to NCEE reforms, the "combined force" of the three pillars suggests significant barriers to their implementation.

7.6 NCEE Reforms and the Three Pillars: An Analysis

The institutional pillars of the NCEE do not compose a "static" background upon which educational institutions operate and which policy is enacted upon; rather, they continuously construct how policy is interpreted, implemented, and negotiated to meet particular expectations. In this section, the effect of the pillars on NCEE reforms at GZ is analyzed, and possible outcomes and suggestions are given. In addition, changing norms and beliefs toward the NCEE are examined; contrary to the idea that normative and cultural-cognitive elements are slow to change compared to the regulatory pillar (Scott, 2008), analysis of data suggests the opposite.

7.6.1 Comprehensive Evaluation

According to the Central Committee's document "Decision of the CCCPC on Some Major Issues Concerning Comprehensively Deepening the Reform" (2013), the purpose of comprehensive evaluation is to reform a system where "one's fate (life) is determined by one examination." Through the use of student portfolios as another means of assessment, the role of the NCEE in determining university enrollment is to be lessened. However, as revealed in Chapter 5, the use of student portfolios has many obstacles, despite evaluations of students by teachers since 2010. Even though students may complete the activities required for their portfolios, there are several institutional barriers facing the use of comprehensive evaluation as a way to counter the importance of the NCEE.

Foremost are elements of the regulatory pillar. Portfolios lack a standard of evaluation; for example, teachers have "suggestions" on categories of evaluation, which differs significantly from the centralized control of curriculum and teaching targets in their subjects. Therefore, evaluations require a certain amount of autonomy from teachers that many may find difficult within such an otherwise heavily controlled system. The fact that, at present, teachers have not been given any training or instruction furthers this point. In addition, evaluations lack the objectivity and transparency of scores. The importance of transparency within the system is recognized in the "Opinions" document by the Ministry of Education (2014) with its emphasis on "realistic recording" and the need for a "public approval" so that postings by students can be verified. These assignments are given scores not based on effort and ranking that define the NCEE, but rather the number of assignments completed. Most importantly, however, is the fact that

evaluations are not "the deciding factor" in university admittance, and that top universities only use them for "references." This fact has already resulted in teachers not taking the evaluations "seriously." It would seem, as suggested by another teacher at GZ, that the evaluations should count as part of a student's NCEE score in order for both teachers and students to utilize them. As pointed out by DiMaggio and Powell, "institutionalized arrangements are reproduced because individuals often cannot even conceive of appropriate alternatives" (1991, p. 11).

Comprehensive evaluations face numerous normative and cultural challenges as well. First are teacher norms of passing along knowledge as well as being moral guides. If students are assessed according to issues of character and moral values, negative evaluations for students imply negative teaching or guidance by teachers. This is already illustrated by the fact that teachers are not allowed to report "bad" things about a student, but rely on rather vague categories like warm-heartedness and "good" characteristics. The student norm of following their teacher further reinforces teacher norms, and also poses a challenge to the development of "personality" and "individuality" stressed in policy documents. Of the five requirements for portfolios listed in the *Opinions* document (2014), three require teachers to "guide" students in particular activities. Thus, the policy itself reiterates the importance of following the teacher and suggests that comprehensive evaluations will increase the responsibilities of teachers much more than students.

At the cultural-cognitive level, reforms designed to foster "individual" and creative development of students ignore the issue of emulation. So, too, do requirements for "holistic" development; what is "holistic" is contextual and non-replicable. On the whole, the idea of "comprehensive" or "quality" evaluation runs counter to cognitive

elements of hierarchy. If education is culturally accepted as a hierarchical, vertical structure based on a singular score that is ranked, then the diversified forms of evaluations that the reforms strive toward (Liu, 2013) will have low legitimacy, regardless of their "comprehensive" function. Thus, "the new ethos of a more student-driven environment based on creative experimentation is at odds with the competitive character of the Chinese educational system" (Bregnback, 2016, p. 111). As a leading tenet of institutional theory states, organizational change occurs only when practices are aligned with an existing cultural framework (Meyer & Scott, 1983; Colyvas & Jonnson, 2011).

Institutional theory also posits that the spread of a practice can be driven by law, but lack the normative and cultural-cognitive support to become permanent, or institutionalized (Colyvas & Powell, 2006). In the case of comprehensive evaluations, however, in order for them to take root or be institutionalized in high schools, they must not only align with the normative and cultural-cognitive, but also the regulatory. As demonstrated earlier, in the case of government laws in China, laws are often negotiated and adopted at a "surface" level, resulting in a type of "decoupling" of organizational structure from policy (Nee & Opper, 2012). Thus, government regulations must require that portfolios play a determined role in university entrance requirements, such as a percentage, so that they are legitimated as a form of evaluation. In addition, student activities should be translated into an objective and transparent form of evaluation, such as a score. Ideally, these should incorporate a hierarchical form of grading, rather than simple completion. Last, teachers must be given specific instructions and training, since the burden of evaluations rests heavily on them. However, even if comprehensive reforms

are incorporated, they will do little to reform the NCEE and its dominance; although they may lessen the importance of the NCEE score (to a very limited extent), they will do little to change its regulatory, normative, or cultural-cognitive elements. Rather, they will reinforce them by having to align themselves with the institutional elements of each pillar.

7.6.2 Choosing Across Subjects: An Institution of Science

As stated in the State Council document *Decisions* (2013), student choice across subject streams is designed to develop individualized student talents, in order to diversify the talent needed for China's development, as well as promote innovation and creativity. This reform faces several institutional barriers; most notably, there is regulatory support for science majors by the government, which operates through control of university admittance regulations and majors, as well as a system of funding incredibly weighted toward top universities (Pepper, 2000; Chan & Ngok, 2011; Liu et al, 2012). This regulatory control is recognized by the principal of GZ, who refers to the "surface change" of the reforms, since top universities require science majors. Thus, for a student to choose across subject streams means a narrower selection of higher educational opportunity among 985 and 211 universities. In addition, top universities are aligned with industry, suggesting narrower future opportunities as well. These regulatory elements are upheld by norms that relate to social mobility and the norm to improve one's position, which themselves are girded by the value that parents and students place on choosing science for its social and economic benefits. Underlying this value is a belief that science is "better" and that science majors "can do everything;" choosing art is a default choice for those who are "no good" at science.

A preference for science exists across the regulatory, normative, and culturalcognitive pillars of the NCEE, suggesting a high level of institutionalization. In addition, the regulatory pillar of science and its elite status⁹³ has been replicated for several decades. Meanwhile, as demonstrated in Chapter 4, a belief in the ability for science to "modernize" China and thus, enable it to overcome its traditional past and be on par with western nations has existed even longer, for centuries. Through these means, science has become "persistent," meaning that the longer a practice had been adopted, the harder it is to deviate from said practice, and thus, the more persistent a particular culture (Zucker, 1991).

An "institution of science" not only constrains student choice across subjects, but also constitutes it by providing an "ideal" that guides behavior (Clemens & Cook, 1999). Such an ideal is clearly seen at GZ, with parents emphasizing science despite the high degree of competition to enter a 985 or 211 university in these fields. In addition, 12th grade students in science streams view their subject as cognitively "challenging" compared to Fine Arts, and scientific achievements by former students are promoted by the school, despite the fact that the highest district exam scores were by Fine Arts students. Thus, science is "infused with value beyond the technical requirements of the task at hand" (Selznick, 1996, p. 271).

7.6.3 The Reality of Student "Choice"

Beyond the challenges faced by an institution of science, student choice is subject to many other barriers. First, as one parent commented, there is the issue of "utilitarian

⁹³ Consider the national development strategies since the 1950's (apart from the Cultural Revolution) that have favored the urban elite. Thus, majoring in science provides more chances for an urban *hukou*.

realism', where students will select courses based on achieving the highest score on the NCEE, revealing an instrumentalist logic (regulatory). This logic is also followed by administration at GZ, who have urged 10th grade parents to focus on high test scores in all six subjects.

However, normative elements also pose significant problems; as stated earlier, students are under an obligation to obey their parents, and the strength of parental influence will no doubt influence student choice, particularly in terms of demands to enter top universities. Students are also under an obligation to "follow" their teacher, and as teacher data reveals, teachers lack both knowledge and training of the new reforms. Combined together, these two norms will impact the ability of students to choose across subject streams.

As pointed out by the principal, most students lack awareness of "their interests", which is how student choice is promoted in policy. Data reveals an overriding concern among students to achieve a high score on the NCEE, particularly Class One students, who state that their choice of university and university majors depends on their NCEE score. This lack of awareness is likely exacerbated by the importance that administration places on scores; analysis of scores as a means of evaluation of both teaching and learning, and the constant focus on ranking in high school leave little room for the development of student "interest." In addition, achieving high scores in exams and showing improvement in exam scores is promoted as a form of exemplary behavior. This is continually reproduced through pedagogical practices where students learn from model exams of top students within a class; thus, they are "routine reproductive procedures [that] support and sustain the pattern" (Jepperson, 1991, p.145). Although student choice

across subjects is congruent with *suzhi* aims of student-centered teaching and "creativity and innovation" of recent policy, the pedagogical reliance on rote memorization, even at the expense of "understanding", runs counter to policy aims. This is reinforced by the norm that teachers are obligated to "pass along" knowledge, and the fact that teachers are moral guides and provide emotional care. Combined with student norms of "following", the issue of choice across subject streams, similar to comprehensive evaluation reforms, will place a greater amount of responsibility on teachers, particularly home room teachers. This is confirmed by statements from 10th grade parents that teachers are the best judges of their children's strengths and interests, and from a district official that students should "rely more" on recommendations from teachers.

7.7 Reaction to Reforms: A Strategy of Decoupling

At GZ, the continued focus on scores as a strategy to keep ranking high illustrates a disconnect between the stated aims of NCEE reforms geared toward promoting comprehensive evaluations, as well as the promotion of student choice across subjects. In institutional theory, this "disconnect" is referred to as decoupling, a strategy that allows organizations to seek legitimacy by incorporating or adapting to rules (or "myths" such as comprehensive evaluation within a system still dominated by scores), even though "they engage in technical *business as usual* (emphasis added)" (Boxenbaum & Jonsson, 2008, p. 79). Nee and Opper's study on "red hat" firms in China is a good example of decoupling, where firms adopt a surface appearance of collective ownership (in structure) to gain legitimacy, at both the social and state level), while retaining a private firm structure of operations (2012). In their study, decoupling from formal rules and structures is "based on rational considerations aiming to optimize internal work routines" (Nee & Opper, 2012, p. 122). At GZ, there are two examples of decoupling, and based on data, its highly likely that the issue of student choice will go the same route as well.

7.7.1 Decoupling Practice from Structure

One example of surface-level adoption at GZ can be seen in GZ's use of foreign English textbooks in their English classrooms, despite the formal structure of centralized curriculum and textbooks set by the government. Thus, this practice is decoupled from the formal structure, suggesting that GZ is conforming to institutional rules in its environment so that it can receive support and legitimacy for survival (Meyer et al, 1981). According to Meyer, Scott, and Deal, institutional organizations "turn away" from their technical core to conform with their institutional environment so that inspection is discouraged while concealment encouraged (Meyer et al, 1981, p. 152). By decoupling its English curriculum from policy, GZ is "optimizing" its chances at retaining high scores and its number one ranking in X district. This indicates a form of "buffering", where GZ's technical core (of high scores) is protected from the environmental uncertainty of adopting government curriculum (Thompson, 1967; Meyer & Rowan, 1983). Rather oddly, decoupling from government structure also serves to support and legitimize X district; by maintaining high NCEE scores through GZ's ranking, X district gains funding and legitimacy at the Municipal level, even though it *itself* is the formal structure. Thus, decoupling is a causal response by GZ (and perhaps X district) to irreconcilable institutional and technical pressures (Weick & Orton, 1990).

Yet, decoupling is also a way for GZ to secure what is referred to as "consequential legitimacy," a way that institutions garner support from their environment by what they accomplish (Suchman, 1995, p. 580). The role of consequential legitimacy

is particularly relevant to GZ's choice of its own English curriculum; its ranking, ability to have all students enter into tier 1 universities, and achieve top scores in English within the district garner support not only from the district, but also from parents and students. Combined with a decentralized funding system for schools that places them within a competitive structure based on performance (Liu & Dunne, 2009), the consequential legitimacy of GZ's status outweighs the coercive pressures to conform to government-mandated curriculum; "the analytically important feature of legitimacy is the connection of a repeated pattern of activity to higher-order cultural frames, norms, and rules conditioning the connection between meanings and practices" (Colyvas & Jonnson, 2011, p. 39). Thus, in addition to the material rewards such as funding, there are numerous normative and cultural-cognitive elements that GZ's high ranking aligns with.

7.7.2 The Rationalized Myth of Comprehensive Evaluations

A second example of decoupling is in regard to comprehensive evaluations and student portfolios; although the school has performed student evaluations for several years, and there is even an "evaluation teacher", there is still no correlation between evaluations and a student's chance of entering university. At the time of study, the impact of evaluations was still unclear. In this way, comprehensive evaluations are a type of rationalized myth, similar to its antecedent *suzhi* reforms, in that they exist as part of the formal structure, yet they are decoupled from practice and activities. As a rationalized myth, comprehensive evaluations contradict with "business as usual" – GZ's focus on NCEE scores and ranking (Meyer & Rowan, 1977). Thus, teachers (and most likely students, too) do not take evaluations "seriously." What comprehensive reforms may be trying to achieve, to borrow a term from Hallettt's study on accountability in American

schools, is a type of recoupling, where an "external myth", such as *suzhi* education, is "given flesh" (Hallettt, 2010, p. 53). "Recoupling" refers to a process where institutional myths and practices that were loosely coupled become tightly coupled; in the case of reforms, if student portfolios become an accepted form of assessment, they may be the means for comprehensive evaluations to finally become tightly coupled to the NCEE system.

7.7.3 Student Choice: Decoupling and Mimetic Isomorphism

At GZ, the administration is continuing to push for its students to enter top universities, which ultimately means choosing science subjects; as stated by the principal, allowing students choice across subject streams is "surface change" since there is "no change" with admission into top universities like Qinghua and Beijing University. Thus, GZ has opted to decouple the formal structure proposed by reform policy from its actual practice of maintaining high scores and top ranking in science within X district. This is justified by a lack of cognitive awareness of choice among students, but such a strategy also demonstrates how GZ is under normative pressure from parents, who show a marked preference for science. Similar to the issue of GZ's approach to English curriculum, decoupling from the formal or "official" organizational structure implies a desire for legitimacy in the field among parents, as well as the district; decoupling supports greater autonomy for the school within a centralized system of tightly-coupled control (Meyer & Rowan, 1992) and suggest that in the need for normative and cultural-cognitive legitimacy, GZ will adhere to its established model or standard.

Nonetheless, data also shows that GZ is incorporating elements of mimetic isomorphism, as seen in statements by administration that they are waiting for news from

Shanghai and Zhejiang province, and the fact they have consulted with high schools in these regions regarding the impact of student choice. According to DiMaggio and Powell, mimetic isomorphism occurs when organizations face uncertainty, which is defined as situations involving technology, unclear solutions, and ambiguous goals (1991). Thus, isomorphism and isomorphic change do not derive from technical change, but are rather the result of wider societal expectations that give an organization legitimacy (Boxenbaum & Jonsson, 2008). Hence, if GZ adopts the practices of successful Shanghai and Zhejiang high schools, who have already faced the uncertainty of student choice during the pilot phase of reforms, they will be illustrating mimetic isomorphism. In fact, GZ's current strategy of decoupling suggests strong isomorphic pressures facing GZ in the future. Decoupling leads to a sensitivity of the organization with its institutional environment, resulting in mimetic isomorphism or a "borrowing" from established practices within the field (DiMaggio & Powell, 1991).

Theories of isomorphism imply that GZ will become a school that is similar in structure, processes, and form to other high schools (i.e., within its organizational field); a foundational argument of isomorphism is that similarity in organizations is the result of efforts to attain legitimacy within the institutional environment or organizational field (Meyer & Rowan, 1977, DiMaggio & Powell, 1991). However, data also provides ample evidence of ways that GZ tries to distinguish itself from other schools to gain legitimacy, such as its use of its own English curriculum, and its ties with a community college program in California – a way to maintain legitimacy with students and parents within the changing socio-economic environment of overseas education. These are examples of the school's attempt to "diversify" itself within a highly coercive isomorphic situation of

state control. The complexities of these findings warrant greater research on Chinese schools in institutional theory, particularly at the level of inhabited institutionalism, where focus is on actions derived from culture or other aspects of the institutional environment, that are negotiated and given their own localized meaning (Haedicke & Hallett, 2016).

7.7.4 Reforms and the Impact of Modern Times

As revealed in data in Chapter 6, there are marked changes in beliefs, values, and attitudes toward the NCEE, ranging from economic (material) reasons, more "hands off" parenting, an inability for modern students to handle "hardship" and "work", increased competition, and the influence of alternate routes for social mobility, to name a few. Statements from parents, administrators, and teachers who took the NCEE in the 80's and 90's compared to 12th grade students at GZ indicate that rapid social and economic changes have lessened the importance of the NCEE, where, in the words of one teacher, "I don't think the NCEE is your destiny anymore." Thus, reforms designed to counter the NCEE role of "one's fate (life) is determined by one examination" have, to an extent, already occurred, though through larger social and economic changes, not through educational policy. Of course, the applicability of this statement depends largely on material wealth, in that overseas study or guaranteed employment (through a parent's company) are options, regardless of one's NCEE score. For the majority of students at GZ, however, these options are not viable. Participant data is gathered from a demographic that is "middle class", a much-debated term in social sciences in China, yet one that suggests attributes such as urban residence, professional jobs, and wealth for housing and education that are below the strata of "newly rich" in China (Goodman,

2008). Thus, students at GZ, particularly compared to their parents and teachers, "don't think four years of university will decide their life."

Nonetheless, the NCEE retains much importance for students and parents and is still viewed as a means for social mobility. This path of social mobility is viewed as one of increasing competition, with urban parents expressing a need to "hold on" or "guard" their top position, implying a pressure from competition with rural residents, regardless of disparity in educational resources between urban and rural areas. Within urban residents themselves, competition among schools to have their graduates enter "top" schools has led to fiercer competition as well as higher expectations among students, implying that reforms to "diversify" China's talent through student choice of subjects will largely be ignored in favor of top universities. Practices like shadow education, which parents all engage in, only reinforce such behavior. This "push" is from society at large, suggesting a broad normative change during the last few years where everyone needs to enter higher education, not just "good students."

Nonetheless, for some students and teachers, particularly those that are part of the *jiu linghou* (after 90's) era, the norm toward social mobility, which includes their attitude toward the NCEE, is changing, as seen in statements by teachers and parents about how this generation just wants to "maintain their situation" (section 5.5.5). Students are described as "fragile" and unwilling to "eat bitter"; in addition, they are more "selfish" and less "motivated." Interestingly, new reforms seem much more appropriate for this younger generation; student choice promotes self-interest, and comprehensive evaluations do not require students to be "motivated" or "eat bitter." Similarly, students' parents are not "traditional parents" but are more "hands-off", expressing views toward

parenting that give more room and choice to their children. Again, in a rather ironic manner, considering the top-down state control of education in China, larger social and economic changes, not educational policy, may change the dominance of the NCEE in education, at least for the urban class that characterizes GZ. These generational changes may provide a cultural-cognitive and normative framework that will allow for the structural change that reform policies are striving towards (Meyer & Scott, 1983; Colyvas & Jonnson, 2011).

7.8 Limits of study and Implications for Future Research

7.8.1 Limits of Study

The data in this dissertation is gathered from a case study. The regulatory, normative, and cultural-cognitive pillars are based on discourse provided by participants. By including a large amount of discourse in my findings, by specifying the situation of GZ as an urban, "middle class" school, and by giving concrete examples of the strategies it utilizes to respond to reforms, I hope a distinction between the specific and the general is clear. It does not suggest that these findings are applicable for every high school in Beijing, nonetheless China. However, it does hope to provide justification for investigation of institutional influence in localized settings, as suggested by inhabited institutionalism (Hallett, 2010). In addition, there is the fact that Scott's theory is not causal, nor is this study. Thus, it does not suggest a causal linkage between the three pillars, such as whether or not the regulatory creates norms or vice versa. For example, it is unclear whether or not a preference for science (both normative and cultural-cognitive) are the results of regulations promoting science in national development since the 1950's (Liu & Pichard, 2004; Pepper, 2000), or if regulations are the result of a belief in science

as a sign of modernity that has existed since the 19th century. This may be a "chicken and egg" type of question; nonetheless, it does illustrate a lack of causal analysis that exist in Scott's three pillars theory.

7.8.2 Implications for Future Research: The Issue of Science

The findings in this research reveal the institutional elements of the NCEE and the complex way that rules, norms, and beliefs uphold the NCEE and the NCEE system in Chinese education. Of particular importance are findings that point to an "institution" of science in Chinese education. Future research should further these findings; for example, if utilizing the conceptual tool of Scott's three pillars again, specific identification of policies and regulations (rather than examples of history) would be needed to argue for an institution of science. The importance of this in studies on education reform in China warrants this investigation, particularly as universities are just now creating regulations specifying the required subjects for entrance into certain majors. The implications of "science-bias" in higher education admission in China should play a significant role in studies on inequality of higher education, given the disparity of educational resources between urban and rural areas, and the disproportionate amount of funding towards 985 and 211 universities, where science and technology claim the majority of studies. In addition, the normative and cultural cognitive elements that uphold a "science-bias" suggests both strengthening and reproduction of elite, urban education at a cognitive level that may be largely taken for granted.

7.9 Conclusion

This dissertation is based on a case study of a Chinese urban high school in Beijing, referred to as Gao Zhong (GZ), during the initial implementation of NCEE

reforms, fall, 2017. It is an empirical study of how stakeholders at GZ high school (administrators, teachers, parents, and students) perceive the NCEE, analyzed through Scott's "three pillars" framework of institutions (Scott, 2008). This study identifies and examines the regulatory, normative, and cultural-cognitive elements of the NCEE; as such, it answers the first research question:

What institutional elements compose the regulatory, normative, and culturalcognitive pillars of the NCEE?

Specifically:

a) What are examples of law, authority, and/or coercion (regulatory) upholding the NCEE?

b) What moral and/or social obligation (normative) do stakeholders have towards the NCEE?

c) What are examples of cultural support and/or shared understanding towards the NCEE?

Regulatory elements are based on the structure and processes of the NCEE, such as scores, ranking, review and testing, as well as the standardized knowledge and topdown curriculum and training that characterize learning and teaching. Sanctions and material rewards become "coercive" rules that GZ must follow to maintain school funding, and work internally in the school as well, through a system of class ranking. Ultimately, the NCEE controls the reward of future opportunity for students and their families, as well. With state control of the NCEE in this pillar in curriculum and quotas, the regulatory pillar represents the strongest and least changeable of the three pillars.

Meanwhile, normative elements include categories of proper actions, values, and goals that the NCEE creates – success (a high score) is the goal for all stakeholders, revealing the way that the normative upholds the regulatory. Student norms of persistent effort and following the teacher are interwoven with teacher norms of passing along

knowledge and being a moral "guide;" they have defined Chinese education since the imperial exam. In addition, students must prepare emotionally for the system through a balanced *xintai*, and teachers have the responsibility to help their students maintain this balance, as well as continued motivation for the exam. Nowadays, however, with increased social mobility and wealth, many of these norms geared toward success in the NCEE are decreasing in importance, although only for the elite.

The issue of elite education is emphasized in the cultural-cognitive pillar, where the "fairness" of the NCEE is largely taken for granted, and bias against rural residents is upheld by a shared belief that residents in cities are more knowledgeable than rural residents. In addition, ideas regarding social mobility, hierarchy, and emulation belong here as well. One of the most important findings deals with the way that the cultural-cognitive also supports the regulatory pillar of the NCEE – that score-based exams, regulated by the government, are a way to counter wealth and corruption in society.

Previous scholarship on the NCEE that has focused on structural components (Kipnis, 2001; Liu et al, 2012), as well as the NCEE's cultural roots and prevailing social expectations (Chen, 2010, Dello-Iacovo, 2009; Lou, 2011; Marton, 2006; Mutthana & Sang, 2015; Wang & Ross, 2010; Yan, 2015). Through the investigation of broader meaning systems, this dissertation offers another 'reality' of China's NCEE, one that explores 'below-the surface' norms and cultural-cognitive beliefs that are often excluded in studies of the NCEE. This dissertation also demonstrates how new reforms are challenged by the rules, norms, and beliefs that uphold the "former" NCEE system, thus answering research question #2:

How do institutional elements of the NCEE serve as barriers to the implementation of new assessment reforms at a high school in Beijing?

At the school level, regulatory elements of scores as anonymous and objective assessments of educational effort are perhaps the strongest barriers to the comprehensive quality assessments proposed by reforms, due to the subjective nature of new assessments. However, numerous regulatory barriers exist outside the school as well, since universities do not consider these evaluations as part of their admittance criteria. In addition, norms such as following the teacher and the teacher as moral guide do not allow for negative evaluation, and beliefs about emulation counter efforts toward cultivating innovative and creative individuals.

The idea of "individual" choice across subject streams also is another reform that faces numerous barriers; regulatory elements such as higher education opportunity weighted heavily in favor of science majors will automatically limit student choice. In addition, normative elements of adhering to parental wishes (a majority wish for science), issues of social mobility, and a cognitive belief that science is "better" than Fine Arts must also be overcome.

In conclusion, this dissertation argues for the three pillars as a conceptual tool that provides a deeper and more comprehensive understanding of the 'reality" of the NCEE. It also utilizes tenets of institutional theory, such as decoupling, isomorphism, and issues of legitimacy to explain GZ's strategy towards reforms, and offers an institutional perspective on the feasibility of policy to change the "one's fate (life) is determined by one examination" NCEE system.

As stated in the preface, the NCEE is best viewed as the *task* of education rather than, as is often argued, the *purpose* of education in China (Zhu, 2016; Yan 2015; Dello-Iacovo, 2009; Ross & Wang, 2010). The regulatory pillar of the NCEE, through its

system of scores, enables both 'education' and educational effort to be codified, assessed, and translated into higher education opportunity (and thus future social and economic opportunity). Both the normative and the cultural-cognitive pillars serve to uphold the regulatory pillar, but also illustrate that "education" is more than the NCEE, and what is valued and gained in education derives more from the process of the NCEE, rather than the tests itself. Thus, the purpose of education harkens back to traditional ideals that focus on 'character', suggesting a layering of traditional norms and beliefs that exist still today.

This case study of GZ reveals the numerous meaning systems and purposes that stakeholders have – students, teachers, administrators, and parents – toward the NCEE. How they make sense of and negotiate the NCEE and education within the NCEE system offer a deeper understanding of the NCEE. They illustrate paradoxical examples of traditional and also modern thinking; changing norms and beliefs reflect the rapidly changing social and economic character of Chinese society, changes that may do more to impact change than reform policy itself. Nonetheless, the rules, values, and beliefs that compose the NCEE system and the strength of these "three pillars" suggest that the NCEE itself is fundamental and unchanging.

7.9.1 Theoretical Considerations

The following section is a summary of contributions to institutional theory and Scott's Three Pillars theory, as well as contributions to knowledge of the NCEE and reforms to the NCEE system.

The issue of NCEE reform and the lack of adherence to quality education reforms (Chinese education in general) strongly align with the theory of loose coupling that characterizes institutional studies. At the case study level, GZ's resistance to NCEE

reforms and national curriculum rules are both solid examples of decoupling policy from practice. Yet, loose coupling is not only between the organizational/macro level but between the micro/macro as well; data from stakeholders regarding knowledge and learning suggests that concepts of education and learning are only loosely coupled to the Exam. This is exemplified in the importance placed on preparation, character, and ideas regarding knowledge. Education derives from the process of the NCEE, rather than the knowledge of the test itself, notions beyond the issues of scores and outcomes; as such, a technical, regulatory view of the NCEE does not capture everything going on in the classroom or school. These findings support Meyer and Rowan's work on the myth of formal structure in organizations (1977), the distinction between technical and institutional organizations proposed by Meyer, Scott, and Deal (1981), and Weick's fundamental work on education as a loosely coupled system (1976).

Applying Scott's three pillars theory to the NCEE brings added theoretical dimensions – a significant finding is the interwoven nature of the pillars. Within the NCEE system, the normative and the cultural-cognitive support the regulatory while also providing nuanced understandings of the importance of roles and beliefs toward the NCEE. While findings in the normative pillar contain individual level norms and roles that support achieving a high score, the cultural-cognitive suggests that the Exam, as a "fair" selection mechanism, ensures stakeholders hold the hierarchical structure and urban bias nature of both education and the Exam as largely taken for granted. A focus on the interwoven nature of the pillars is congruent with Hopkins and Spillane's study on instructional guidance infrastructures, which concludes with the necessity of studying the three pillars in interaction to understand implementation (2015). Thus, in regard to reform

of the NCEE system, the pillars are interwoven barriers, as summarized in the table below:

Reforms	Regulatory	Normative	Cultural- Cognitive
Student Choice across Subject Streams	Scores, admission requirements of higher education	The need for social mobility, "following" the teacher	Teacher as a moral guide, "following the teacher"
Comprehensive Evaluations	Standardized assessment and standardized knowledge	Teacher as a moral guide, "following the teacher"	Emulation, beliefs of hierarchy

 Table 3: The Three Pillars as Interwoven Barriers to NCEE Reforms

The pillars also provide new analytical space for empirical research on the NCEE beyond a "score-focused" analysis. They present new findings and also expand on understandings of Scott's theory (2008). In terms of the regulatory, the pillar is also symbolic in nature, as shown in the fact that rules are negotiated. It can be argued this finding indicates loose coupling between the regulatory and organizational structure, a key finding of institutionalism, yet I believe it is also the special nature of the regulatory when applied to the Chinese context, where rules tend to be universally acknowledged but contextually implemented, as evidenced by the statement from the head of teachers about curriculum, and the works on isomorphism by Nee and Opper (2012) and Hasmath and Hsu (2014), as well as the central/local power struggle that has characterized Chinese education for centuries (Elman 2013; Thogerson, 2002). Meanwhile, the NCEE's normative pillar reveals the existence of modern and traditional norms in education; traditional norms for teachers actually challenge (rather than support) the regulatory pillar, which does not align with Scott's understanding of the pillar. Rather, justification

and support for the regulatory lies with the cultural-cognitive pillar instead, and the taken for granted nature of beliefs on fairness and objectivity suggest a level of permanence and unchangeability often accorded to this pillar.

Based on these findings, this dissertation contributes to further understanding of the NCEE and the challenges facing NCEE reform in China, and expands on the theoretical use of institutional theory and Scott's Three Pillars through application in the Chinese context.

APPENDIX A

CLASS ONE "FIGHTING SPIRIT" POSTER



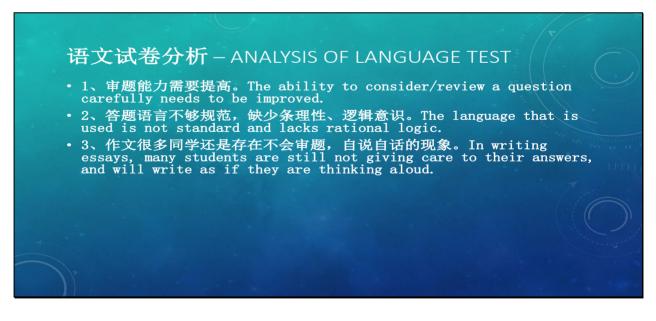
APPENDIX B

SLIDES FROM PARENT-TEACHER MEETING

<u> </u>	2科-Science	文	、科 - Arts	
语文 - language	111.2	语文 - language	116	
数学 - math	112.6	数学 - math	99.7	
英语 - English	93.7	英语 - English	93.7	
物理 - physics	75.7	历史 - history	75.2	
化学 - chemistry	75.1	地理 - geography	72.7	
生物 - biology	78.9	政治 - politics	75.8	
总分 - total	547.3	总分	533.1	

B1: List of Average Scores from the Mid-term Exam

B2: Advice for Student Improvement



APPENDIX C

GUIDING QUESTIONS

These questions will serve as guiding questions for the semi-structured interview process.

1. To establish the norms and values of stakeholders (teachers, parents, and administration) towards education.

- A. What do stakeholders consider the purpose of education?
- B. How does education relate to their hopes or aspirations?

2. To establish the norms and values of stakeholders (teachers, parents, and administration) towards the NCEE.

- A. What norms, values, and experiences do stakeholders have towards the exam?
- B. How are stakeholders "tied" to the exam (teacher performance, institutional ranking, normative beliefs, etc.?)
- C. How do stakeholder beliefs about the purpose of education "integrate" with their perceptions of exam?

3. To identify the knowledge, norms and values of stakeholders (teachers, parents, and administration) towards the reforms.

- A. What current (related and important) reform policies are stakeholders aware of?
- B. What perceptions do stakeholders have towards the reforms?
- C. What experiences do stakeholders have with the reforms?
- D. How do stakeholder beliefs about the reforms "integrate" with their beliefs about exam?
- E. How do stakeholder beliefs about the reforms "integrate" with their beliefs about the purpose of education?

APPENDIX D

SURVEY QUESTIONS FOR 10TH GRADE PARENTS

1. 您对最近高考改革有什么感想? 您觉得改革对您孩子什么样的影响?

1. What feelings do you have towards the most recent NCEE reforms? What kind of effect do you think these reforms will have on your child?

2. 高二您的孩子必须从六个科目中选择三门, 您怎么帮他选择?

2. In grade 2 (grade 11), your child must choose three out of six subjects, how will you help him/her choose?

3. 您会建议您的孩子选择什么样的科目,为什么?

3. What kind of subjects would you recommend for your child, and why?

4. 您怎么指导您孩子的学习?请您举例说明

4. How do you guide/direct your child's study or learning? Please give an example.

5. 您觉得教育的目的是什么?

5. What do you think is the purpose of education?

APPENDIX E

CHART OF PARTICIPANTS

12th grade teachers (7 total)

Subject	Gender	Length of time
English	Female	40 minutes
English	Female	35 minutes
Physics/head teacher	Male	20 (same as focus group)
Physics	Male	Focus group (75 minutes)
Chinese	Female	FG
History	Female	FG
Chemistry	Male	FG
Geography	Male	FG

11th grade teachers (7 total)

Chinese	Female	25 minutes
Math	Female	54 minutes
Math	Male	45 minutes
English	Female	75 minutes (FG)
English	Female	75 minutes (FG)
English	Female	75 minutes (FG)
English	Female	30 minutes (FG)

10th grade teachers (11 total)

Physics	Male	20 minutes
Physics	Female	20 minutes
English	Female	1 hour
English	Female	1 hour 25 minutes
Fine Arts (music, art)	Female	35
English	Female	23
English	Female	33
Foreign English teacher	Female	30
Physics	Male	10
Head teacher – Chinese	Female	1 hour
Geography	Male	20 minutes

Administration (7 total)

Moral Teacher	Female	55 minutes
Head Teacher	Female	3 hours 15 minutes

Principal	Female	2 hours 30 minutes, plus	
		notes from informal	
		meetings	
Vice Principal	Male	1 hour 5 minutes	
Librarian	Female	50 minutes	
Evaluation teacher	Female	35 minutes	
District Commission	Male	1 hour plus questionnaire	
official			

Parents (8 total)

12 th grade	2 mothers and 3 fathers	45 to one hour each
10 th grade	2 mothers and 1 father	45 to one hour

12th grade students (16 total)

Class 1 student	Female	30 minutes
Class 2 student	Male	20 minutes
Class 1 (6 students), Class	3 females, 4 males	FG (2 times), total 120
5 (1 student)		minutes
Class 6 (7 students)	4 females, 3 males	FG (2 times), total 120
		minutes

Surveys (11 total)

U I	11, 6 female and 5 male	5 open-ended questions
Classes)	(from 2 classes, parent-	
	teacher committee – 14	
	total)	

APPENDIX F

LIST OF PARTICIPANT TITLES AND RESPONSIBILITIES

Principal – The principal is the founder of GZ school. "Principal M" was an influential educator prior to founding GZ. On her desk sits a picture of her when she was presented an award for her efforts improving the ranking of a low-performing urban school during the 1980's. Principal M has been in education since the mid-50's; at the time of my research, she was 83. As she states, she was "pulled out of retirement" at the request of the district ministry to start GZ middle school.

Director of Teachers – the Director of Teachers is referred to as the "Head Teacher" by others at school, indicating a level of closeness and familiarity (see definition below). She is Principal M's "right-hand" person and has worked at the school since its founding. She is charge of scheduling classes, assigning teachers, teacher training, and dealing with official ministry requests and reports. As a result, she is quite knowledgeable about new reforms and their implementation.

Vice Principal – The vice principal of the school has also been with the school since it was founded, although he began as a chemistry teacher in middle school. His duties include supervision and monitoring of teachers, which includes ensuring that teachers are following the designated stages of the curriculum (These stages are set across grades and subject according to textbooks, which are designed by the district ministry, not the school). Although Principal M makes all decisions regarding teacher grade placement, who homeroom and whole grade teachers will be, and what teacher is assigned to which class, the vice principal ensures that these are carried out. In addition, the vice principal is in charge of compiling and assessing school-wide examination results.

Moral Teacher – The moral teacher is responsible for moral education within the school, a broad area of responsibility that includes issues of safety education, cleanliness within classrooms, student representatives for classes, homeroom (HR) teacher training, and ensuring that HR teachers teach topics assigned by the district education commission. These topics relate to historical and patriotic themes. She is also in charge of arranging school festivals and events.

Evaluation Teacher – The evaluation teacher is in charge of compiling student records and evaluations to send yearly to the district ministry. Since 2010, she has been in charge of the school's online records of student portfolios, and helps students and teachers to compile a student's portfolio.

Homeroom Teachers (班主任, *banzhuren*) – Although the literal translation of this in Chinese is "head teacher", the best translation in English is homeroom teacher. However, homeroom teachers in America do not have the same responsibilities; in China, academic, social, and emotional needs of students are all responsibilities of the homeroom teacher. Once per week, each class will have a 40-minute HR period, where

they learn about topics designated by the moral teacher. In addition, HR is for the first 10 minutes of school, and HR teachers must stay after school for students, as well. Also, they must keep office hours after lunch for students every day. In GZ, in order for a teacher to rise up in rank and salary, he/she must be a HR teacher at least once during the first three years.

Whole Grade Head Teacher – the whole grade teacher is in charge of coordinating the work of teachers with the vice-principal and director of teachers. In addition, the whole grade teacher works in coordination with HR teachers in case student issues and emergencies, and for organizing events designated by the moral teacher and/or district. Most importantly, the whole grade teacher must report on results of grade-level mid-term and final exams.

Deputy Section Chief of the Department of Basic Education, X district Education Commission – The deputy is responsible for teaching quality and management for all high schools in X district. This includes evaluation, monitoring, and the implementation of district curriculum, as well as any curriculum reforms of the NCEE. In addition, the Deputy is involved with the implementation of new NCEE policy reforms such as Comprehensive Evaluation and the ending of subject streams.

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