TEACHERS’ UNDERSTANDINGS AND ACTIONS TOWARDS CHINA’S NEW CURRICULUM REFORMS IN THE CONTEXT OF CHINESE EXAMINATION-ORIENTED EDUCATION

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by

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ABSTRACT

China’s long tradition of exam-based education has tended to be a steadfast barrier to educational reform efforts. Over the past decade, however, new official school reform efforts have emerged under the descriptive banner of “quality education” or, in Mandarin, suzhi jiaoyu. In spite of serious efforts to change curriculum and pedagogy to support suzhi jiaoyu, studies indicate the tremendous power of social and organizational structures to restrict classroom change. These include not only the power of high stakes entrance exams (such as gao kao), but also the willingness and capacities of teachers. The conflict between suzhi jiaoyu reform and traditional structure fits well within the framework offered by Bolman and Deal, which includes structural, human resource, and symbolic lenses for understanding. Coupling this framework with a variety of qualitative research methods, this case study examines the beliefs and attitudes of a sample of 29 secondary school teachers in the Grace school in Sichuan as a means for understanding the challenges and meaning of suzhi jiaoyu school reform implementation.

The empirical examination of the present study reveals that teachers’ reform implementation was reconfigured by their evolving perceptions and actions toward the reforms. As teachers developed stronger perceptions regarding reform practices’ merits, consistency, and technical properties and gained increasing self-efficacy in reform implementation, teachers’ reform behaviors increased. However, as the inconsistency between structural goals and reform practice appeared and the gap between teachers’ personal need and capacity and reform demand increased, teachers’ reform practice was negatively affected in classroom. This research illustrates implications for policy and contributions to theory and research, discusses limitations of the present study, and provides suggestions for further research.
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Chapter One

Introduction

Originating from history, culture, and structure, the exam-oriented education system remains a deeply ingrained feature of Chinese society (Dello-lacovo, 2009; Luo, 2012; Niu, 2007; Suen and Yu, 2006; Walker, Qian & Zhang, 2013). Historically, for various periods totally over 1000 years formal education revolved around the highly centralized series of government examinations that were viewed as the stepping stones to social status and official power (Dello-lacovo, 2009; Suen and Yu, 2006). The exams, known as Keju, served to select outstanding human resources for the various hierarchical levels of government and covered an officially prescribed curriculum of Confucian classics, poetry, and government policy (Suen and Yu, 2006). To promote exam performance, teaching and learning were marked by lecture and memorization at the foot of teachers who were understood to be the source and transmitter of knowledge. Those students inclined to pursue official careers, gathered the exam knowledge, and crammed for an upcoming series of intense exams (Suen and Yu, 2006).

In more recent decades, the modern exam system shifted toward the selection of students for advanced education and the curriculum expanded to include Chinese language and literature, English, math, sciences, arts, music, and physical education (Dello-lacovo, 2009; Feng, 1999; Luo 2012). At the same time, modern Chinese public schooling adopted characteristics similar to the ancient exam-oriented practices. Today, the technical core of Chinese public schooling remains driven by high-stakes high school and college entrance exams and by the powerful rewards embedded within higher educational opportunity. Such rewards include not simply access to education, but also the right to move from rural to urban areas, and a wider choice of lifestyle (Dello-lacovo, 2009; Luo, 2012; Niu, 2007).
In very recent years, however, as China became exposed to and influenced by global social and economic trends, the drawbacks of exam-oriented education became increasingly exposed, recognized, and criticized. Critics, for example, targeted the heavy focus on rote memorization, exam preparation, and inattention to the development of creativity (Dello-lacovo, 2009; Luo, 2012). In gradual response over the past decade, Chinese education officials have called for national education reforms, known collectively as Suzhi Jiaoyu, or “Quality Education,” which aim at developing well-rounded individuals rather than just highly capable test-takers (Dello-Iocovo, 2009). The word suzhi, or quality, refers here to qualities or characteristics of individual students; that is, it is hoped that students will learn to be moral, intellectual, practical, aesthetical, and physically active (Dello-locovo, 2009). In addition, suzhi jiaoyu curricular reforms stress creative learning, problem solving, life-long learning, and collaborative learning. The reforms thus appear to require organizational transformations that significantly depart from China’s traditional exam-oriented education system (Dello-lacovo, 2009; Guo, 2013; Luo, 2012).

Because suzhi jiaoyu reforms clash sharply with traditional schooling practices, it is no surprise that they have encountered substantial resistance from Chinese educators, at the local school level (Luo, 2012). While education officials and some education researchers expected support for the reform agenda, difficulties emerged on several fronts. It soon became clear that local educators and administrators lacked the professional experience, knowledge, or training as to how to implement the called-for classroom changes. At the same time, local school teachers and administrators had little basis to discount the continued use of the high stakes exam results as a means of teacher, principal, and school evaluation (Luo, 2012; Shouse, Bai, & Ma, 2017).

In many ways, the situation resembled what Weick and Westley (1996) refer to as juxtaposed order and disorder, which they further claim to be the necessary context for
organizational learning. The new practices that are learned, however, may not necessarily reflect the goals put forth from higher levels of the organization. For example, in their study of Taiwan schools, Shouse and Lin (2010) found that teachers and principals relied on rhetoric and symbol to maintain their legitimacy within the new reform habitat. More recent studies revealed other ways in which Chinese teachers and schools creatively and successfully navigated reform demands in ways that met the spirit, but not necessarily the technical specifications, of suzhi jiaoyu (Shouse, Bai, & Ma, 2017). In other words, teachers appear to “make sense” of the reforms through a lens of their own values, attitudes, knowledge, capabilities, and experience – which tend to be deeply embedded in exam-based education (Dello-Iacovo, 2009; Luo, 2012). Thus, despite reform pressures, teachers continued to teach in ways that revealed the supreme influence of high stakes exams, the shortage of professional support, and their own high power-distance sense of efficacy (Luo, 2012; Marton, 2006; Niu, 2007).

**Research Problem and Questions**

Thus far, most of the research on China’s suzhi jiaoyu reform has been limited to conceptual descriptions of the significant tensions it appears to create within the system. With little empirical evidence, one is left mostly with speculative exercise as to how teachers will respond. What appear to be needed are studies which gather actual data from teachers or administrators on the front lines of the suzhi jiaoyu curricular changes.

To that end, my study aims to bridge this gap by shedding light on the meaning of suzhi jiaoyu reform as perceived by teachers. My study thus explores how teachers’ perceptions and behaviors are shaped by the reforms, and how perceptions and behaviors might somehow shape, or reshape, the implementation of reform. Specifically, my study asks the following:
• How do teachers’ belief and background influence their perceptions and attitudes toward the new curriculum reforms?
• What barriers and/or facilitators do teachers face in responding to the reforms?
• How do teachers’ perceptions, beliefs, and actions evolve as they grapple with reform demands?

My study begins with these broad questions based on qualitative data obtained from a sample of 29 secondary school teachers in the Grace school located in Sichuan, China. Further questions will be presented based on elements of the literature review offered in chapter two. For example, is suzhi jiaoyu best viewed as a substantive effort to restructure Chinese classroom curriculum and pedagogy? As a more symbolic effort aimed to gain institutional legitimacy in a global environment? Or as some culturally remarkable combination of both?

**Theoretical Framework**

Bolman and Deal’s “four frame” conceptualization of organizational behavior serves as a resilient approach to understanding organizations and suggests that behavior in schools or other systemic settings can be understood in terms of four key lenses: structural, human resources, symbolic, and political (Bolman and Deal, 2013). The first two of these correspond generally with Scott’s (1992) rational and natural systems view, which respectively highlight formal and informal structures. The symbolic frame, while capturing aspects of a natural systems model, highlights institutional aspects of organizational behavior. The political frame runs in line with longstanding studies such as those by Pfeffer (1982) and others which focus on the acquisition and exercise of “non-legitimate” power in organizations. Bolman and Deal’s lenses represent independent theories for explaining organizational behavior. As tools for understanding, they
may be used independently depending on the problem or context of interest. This study focused on issues of organizational and cultural change but less so on the exercise or acquisition of power. This isn’t to say that power relations are absent from the context of Chinese educational reform; but simply that power and politics did not appear to have significant influence on teachers’ perceptions or behavior and were thus outside the focus of this study. As examining primarily the technical and symbolic aspects of suzhi jiaoyu reform, my study employs only the first three of these lenses-structural, human resources, and symbolic-as my theoretical framework.

Significance of the Study

The migration of school reform language, policy, and practice throughout the global environment is a phenomenon worthy of study and in need of further understanding. Though rational economic considerations often serve as explanations for various school reform movements, few studies address the difficulties – and often stark failures – of such movements to significantly penetrate or endure within educational systems. The juxtaposition of what might reasonably be called “Western-style school reform” upon the longstanding test-driven system of Chinese education presents this problem in crystalline terms. One might also think of suzhi jiaoyu reform as a non-native “introduced” species within the Chinese educational habitat. At the same time, little empirical evidence exists to promote broader understanding of how this policy species might survive within, fail within, or otherwise alter the quality of Chinese educational systems. Tapping into teachers’ views of suzhi jiaoyu, my study represents a small, but important, first step toward understanding the purposes and impact of Western-style school reform efforts in non-Western settings. Moreover, I hope that this study can provide useful information for scholars, practitioners, and officials in the arena of East-Asian education.
Chapter Two

Review of the Literature and Theoretical Framework

This chapter provides further detail of the historical, pedagogical, organizational, and methodological underpinnings of this study. These include:

- The history of Chinese examination-oriented education
- The new curriculum reforms in China (Suzhi jiaoyu)
- Empirical studies of teachers’ reform implementation in Sichuan
- A theory base framing teachers’ reform implementation

The History of Chinese Examination-Oriented Education

China has a long history of examination-oriented education that has been integrated into Chinese culture and society (Dello-lacovo, 2009; Luo, 2012; Pepper, 1996; Suen and Yu, 2006; Suen, 2005; Walker, Qian & Zhang, 2013). In imperial China, the historical civil service exam system, known as Keju (科举) exams, originated in 606 and officially ended in 1905, a total span of 1,298 years (Suen and Yu, 2006). The Keju exam system consisted of hierarchically progressive levels of exams – local, provincial, metropolitan, and palace levels. All people were allowed to take exams as many times as desired, but they should pass the lower exams to be eligible for the further levels (Niu, 2007; Suen and Yu, 2006). Exam candidates invested much in the civil service exams, engaging their time, money, efforts, spirit and emotion. Regardless of the invested painstaking efforts, the probability of passing the final tier of the Keju exams was extremely small and most of candidates failed (Suen and Yu, 2006).

The Keju exam system had been the “government-orchestrated system of high-stakes employment testing, education testing, and test-driven education” (Suen and Yu, 2006, p. 48).
The Keju exam system centrally served the purposes of imperial government employment. Based on the exam performance, the imperial government evaluated people’s intelligence and abilities and Chinese emperors recruited and hierarchically assigned outstanding candidates to official positions in the imperial government (Niu, 2007; Suen, 2005). These outstanding winners and their extended families were rewarded with high pay, prestige, power, fame, and other advantages (Suen and Yu, 2006).

Furthermore, the Keju exam system fundamentally influenced ancient teaching and learning. As Dello-lacovo (2009) states, “For over 1000 years in imperial China, formal education revolved around the hierarchical highly-centralized series of government examinations” (p. 241). Traditional teaching and learning was heavily driven by the content of the Keju exams (Niu, 2007; Suen and Yu, 2006; Suen, 2005). For example, the Keju emphasized Confucian philosophy, history, national policies, and the writing of official documents and poetry (Suen and Yu, 2006). These examined subjects were carefully taught and students spent endless hours learning them due more to their extrinsic than intrinsic value. Non-examined subjects such as medicine, engineering, or business, received less attention in the traditional schooling process (Suen, 2005). Poetry was heavily emphasized in both the Tang and Song dynasties, which facilitated and sustained its widespread development during these periods. However, as the successive Yuan dynasty, poetry was de-emphasized in favor of drama, which then emerged as an alternative form of literature gaining the popularity among students (Suen, 2005).

Moreover, high-stake exam assessment demanded a need for standardization but yielded deeper meaning or critical understanding. Throughout the history of the Keju exam system, examinations were tightly standardized (Suen and Yu, 2006). Facing this, the traditional schooling emphasized a variety of test-taking skills, like recitation, memorization, or cramming.
for the exams, to meet the standardized testing (Suen, 2005). While full attention was paid to exam-defined standards and painstaking efforts were made to strengthen testing skills, a deeper understanding of knowledge and substantive meaning might have been discouraged (Niu, 2007; Suen and Yu, 2006; Suen, 2005). For example, exam essays testing the knowledge of Confucian classics had to be written under the restrictive writing standards, which included a fixed total number of sentences, a required format, demanded symmetry and tonal balance (Suen and Yu, 2006). In order to meet these rigid writing standards without losing scores, students spent intensive efforts to recite and memorize those well-written model essays from previous exams and to practice exam-defined writing skills through exam exercises, rather than focus on the substantive meaning. Although the inclusion of poetry in the exam intended to increase an examinee’s capacity for original expression of knowledge, the emphasis on strict poetry writing standards discouraged the expression of original thought (Suen and Yu, 2006).

In the modern Chinese society, the examination system carries on much of this earlier framework for the advancement of education – promoting and evaluating student’s intelligence and ability through the development of teacher and school capacity (Feng, 1999; Luo, 2012; Marton, 2006). In the modern testing system, the National College Entrance Exam (NCEE) has been centrally piping prospective high school graduates upward to higher education, stirring a determined influence throughout primary and secondary schooling (Feng, 1999; Luo, 2012; Niu, 2007). In addition to this, outstanding NCEE scores enable greater access to prospective employment and the accompanying social and economic benefits (Dello-lacovo, 2009). Under the NCEE-oriented exam system, which includes both college and high school entrance exams (gaokao and zhongkao, respectively), candidates are filtered upward or screened downward for
higher education opportunity in accord with the exams and in response to the quality of teaching and learning they receive (Niu, 2007).

However, there are some changes in the modern examined content. The modern curriculum at secondary schools extends beyond Confucian philosophy, poetry, and governmental policies contained in the ancient exams to include a comprehensive combination of Chinese, English, mathematics, science (physics, chemistry, and biology), social science (politics, geography, and history), and humanities (arts, music, and physical education) (Zhou & Zhu, 2007). In terms of examined subjects, in most provinces of China (including Sichuan, the location of the present study), Chinese, English, and mathematics have been heavily tested subjects, the sciences to a lesser extent, and humanities receiving the least test attention (Walker, Qian & Zhang, 2011; Zhang, 2011; Zhou & Zhu, 2007).

In the modern Chinese educational system, driven by the high-stakes exam system, public secondary schooling remains standardized (Luo, 2012; Marton, 2006; Niu, 2007; Zhang, 2011; Zhou & Zhu, 2007). With the national curriculum serving as the official and unified prescription for public secondary schooling, most classes in Chinese public secondary schools, across cities and districts, present the same content and material at the same time (Feng, 1999). In accord with standardization, Chinese secondary school teachers tend to rely on similar pedagogical techniques such as lecture and expectation of rote responses from students, which in turn is said to promote passive learning (Feng, 1999; Luo, 2012). In order to track the effect of those testing skills, the utilization of exam exercises with high frequency and huge amount has been intensively regularized on the tested subjects, either small as quiz or critical as finals (Feng, 1999).
The New Curriculum Reforms in China

In the 1990s, perhaps in response to global trends, concerns arose across East Asia regarding the normative exam-driven nature of many nations’ systems of public schooling (Shouse and Lin, 2010). In the period since then, Chinese Ministry of Education issued a series of national educational initiatives, known collectively as suzhi jiaoyu (素质教育). The term translates into English as quality education, with the word “quality” referring to students’ capacity to become more well-rounded citizens within a systemic shift toward broader educational aims and practices. As part of this capacity and shift, students could distinguish themselves in ways beyond exam performance (Dello-lacovo, 2009). Thus, suzhi refers to the person more than to the process (Dello-lacovo, 2009). Desired qualities of a person, in suzhi jiaoyu reforms, are categorized as moral, intelligent, capable of practical skill and diverse aesthetical perspectives (Dello-lacovo, 2009).

Under the banner of suzhi jiaoyu, new series of reforms considered appropriate to these new goals were launched in 2001 (The State Council of the People’s Republic of China, 2001). Reforms were expected to trigger changes in curriculum content and instructional pedagogy throughout primary and secondary educational institutions aimed at cultivating well-rounded citizens and repairing the disadvantages of examination-oriented education (Dello-lacovo, 2009; Luo, 2012; Walker, Qian & Zhang, 2013). The reform called loudly for an underlying emphasis on creativity, student-centered instruction, practical skills, lifelong learning, and collaborative learning (Dello-lacovo, 2009; Guo, 2013; Luo, 2012; Walker, Qian & Zhang, 2013).

According to Guo (2013) and Luo (2012), the new curriculum reforms initiated in their policy statements regarding a variety of changes in Chinese basic education (Guo, 2013; Luo, 2012). For example, reforms tended to shift the curriculum structure from subject-centered to
diverse integrated approaches in order to take care of individual student interest (Luo, 2012; Zhou and Zhu, 2007). In addition, it introduced an instructional change from teacher-driven to student-centered instruction. The student-centered pedagogy encouraged students to be the center of teaching and learning, while teacher was a facilitator to provide guidance and assistance for students to develop knowledge and skills. In this way, learning was expected to be socially constructed in a collaborative learning environment (Luo, 2012; Zhong, 2007). The reforms also tried to modernize curricular content to become more closely relevant to “real life” modern knowledge, practical skill, and lifelong learning (Guo, 2013; Luo, 2012; Zhou and Zhu, 2007). Therefore, it seemed that these policy ideals introduced a radical departure from the examination-oriented education.

Facing the contradiction between the traditional education and the suzhi jiaoyu reforms, researchers reported that teachers, in reality, “muddled through,” and provided an appearance of active and creative student engagement even when not perceiving a clear picture of how to do so. On one hand, teachers were expected to approximate reform efforts in their class. On the other hand, teachers’ classroom practice appeared to be symbolic and little actual functional behaviors related to the reform (Li, 2008; Luo, 2012; Ma & Tang, 2002; Xia, 2008; Yan & Zhou, 2008; Zhong, 2005).

**Empirical Studies of Teachers’ Reform Implementation in Sichuan**

Zhang, Zhu and Zhang (2014) studied of middle school teachers and curriculum reform in Sichuan, China found a variety of influential factors related to implementation. These included a perceived absence of curricular resources; teacher’s lack or inappropriate understanding of
curriculum; weak capacity; and lack of support. However, this study focused on experienced middle school teachers and overlooked non-experienced teachers’ implementation of the reform.

In a previous quantitative study of Sichuan high schools, Luo (2012) examined links between teacher implementation of student-centered pedagogy (SCP) demanded by the new curriculum reforms and high-stake outcome-driven teacher evaluation policies (Luo, 2012). In contrast to previous scholars pointing to school-level factors influencing teaching and learning (e.g., resources or leadership: Bulach & Malone, 1994; Stalling & Mohlman, 1981; Yuen, Law, & Wong, 2003), Luo found that school-level characteristics did not significantly influence reform implementation. Luo’s study suggested that high school teachers’ curricular and instructional behavior did not differ significantly from one school to another in Sichuan (Luo, 2012). Left unexamined, however, was the extent of variation among teachers within the same school and the possibility that teacher background might play a role.

Furthermore, Luo (2012) examined the factors of teacher background (Gender, Experience, and Highest Degree Obtained), teacher perceived school supports, teacher perceived general beliefs about SCP, and teacher perceived self-efficacy in SCP. Although Zhu (2010) claimed that the new curriculum reform was impeded by teachers’ lack of experience and training, Luo (2012) argued that teacher background (Gender, Experience, and Highest Degree Obtained) and teacher perceived school supports (teachers’ sense of resource availability, quality, and sustainability) were not significant predictors of teacher SCP implementation. Luo additionally (2012) found that, teacher perceived general beliefs and self-efficacy in SCP significantly influenced their SCP implementation.

Moreover, Luo (2012) suggested evaluation on teacher performance was majorly tied to students’ exam achievement (including the zhongkao and gaokao) and teacher perceived exam
control significantly hindered their SCP implement in classrooms (Luo, 2012). According to Luo, high school teachers in Sichuan still regarded exam-oriented education as their major responsibility and tended to employ teacher-driven pedagogies rather than SCP, even when they spoke highly of SCP (Luo, 2012). Luo also found that SCP-related teacher evaluation policy in Sichuan included a variety of factors (e.g., professionalism, competency, attendance regularity, and teaching outcome). In reality, student exam – and especially gaokao – achievement functioned as a key factor and teachers’ merit pay and other rewards were closely associated with exam-based outcome (Luo, 2012).

Luo’s study used quantitative methods on a sample of high school teachers in a local district in Sichuan to examine the implementation of the reform pedagogy. Less is known about what other facets of the reforms go on in classrooms, how teachers at middle schools implement the reforms, how teachers’ implementation process evolves, or what meanings teachers attached to the reforms. These limitations suggested the need for further empirical examination.

**Theory Base**

Although there were limited empirical studies of teachers’ reform implementation at secondary schools in Sichuan, Bolman and Deal (2013)’s framing analysis provides a comprehensive theory base to understand and predict the organizational difficulties that might occur under Chinese school reforms as well as the potential behaviors and attitudes of teachers. Bolman and Deal’s lenses represent independent theories for explaining organizational behavior. As tools for understanding, they may be used independently depending on the problem or context of interest. This study focused on issues of organizational and cultural change but less so on the exercise or acquisition of power. This isn’t to say that power relations are absent from the
context of Chinese educational reform; but simply that power and politics did not appear to have significant influence on teachers’ perceptions or behavior and were thus outside the focus of this study. As examining primarily the technical and symbolic aspects of suzhi jiaoyu reform, my study employs only the first three of these lenses-structural, human resources, and symbolic-as my theoretical framework. The following sections walk through some various interpretations of the potential impact of examination-oriented education on suzhi jiaoyu reforms.

**The structural perspective.** From the structural perspective, organizational behavior is fundamentally shaped by formal rules, procedures, and goals. Behavior is said to be rational when a manifest link appears between means and ends and the likelihood of rational behavior increases with the degree of goal consistency (Bolman & Deal, 2013). These assumptions pose dual possibilities regarding suzhi jiaoyu reforms. First, they lead to an expectation that organizational directives are likely to be followed; for instance, that school reforms would be gradually, yet effectively integrated into the technical procedures of schooling. At the same time, one might expect difficulties due to goal inconsistency; the technical demands of high stakes testing goals conflict with those of suzhi jiaoyu reform. Bolman and Deal’s structural frame thus suggests that regardless of formal communications within the organization, few changes would occur within the technical core of teaching and learning. In terms of technical change, reform pronouncements might be viewed as inauthentic (Luo 2012; Pepper, 1996).

In addition, the structural frame’s emphasis on the necessity of role clarity gives rise to further concern. In other words, a teacher’s implementation of reform might be influenced by conflicts between traditional and reform teacher roles. For example, Luo (2012) found that on one hand, reform called upon teachers to function as facilitators to assist in students in active learning and the development of individual interest. On the other hand, teachers were long
accustomed to be at center stage as the source and transmitter of knowledge, with students serving as passive receivers of knowledge. This role conflict accordingly posed a barrier into teacher instruction (Luo, 2012).

The human resource perspective. In contrast to the structural frame emphasizing impersonal structure, process, and organizational rationality, the human resource frame underscores the power of individual needs to shape organizational behavior (Bolman & Deal, 2013). In this sense, teachers’ implementation of Chinese new curriculum reforms might be influenced by the degree to which organization and teacher need or interest matched. For example, the student-centered pedagogy was assumed as critically important in the reform (Luo, 2012). If teachers’ need, interest or motivation were congruent with this new instructional mode, the fit might be expected. However, the imposition of the new teaching mode might evoke problems upon teachers who had strong beliefs or expertise in the traditional instruction, like producing the feeling of distrust in their expertise. Facing this mismatch, the HR frame predicted that teachers might do what they need to do to meet their individual need, interest, or motive. Even, teachers might reshape the rules to fit their own need or interest (Shouse and Lin, 2010).

Although Bolman and Deal’s human resource frame (2013) highlights the fit between worker capacity and organizational need, this tension is not completely clear within the context of Chinese school reform. Teachers may indeed possess the pedagogical capacity to utilize reform methods, and they may perceive lack of capacity to do the reform. In addition to this, what is lacking might be an organizational structure that allows teacher potential to be expressed. In the case of suzhi jiaoyu, it appears that teachers did receive reasonable levels of training and one would not wish to assume that Chinese teachers are immune to professional development
One thus concludes that the problem here is not only capacity to change instructional practices, but also the opportunity to change them.

**The symbolic perspective.** Bolman and Deal’s symbolic frame suggests that when facing uncertainty, ambiguity, or conflict, individuals tend to create symbolic messages or behaviors to resolve the confusion, rather than actual technical resolutions (Bolman & Deal, 2013). In this sense, teacher “implementation” of reform might consist of behaviors, images, or discourse that suggest support for reform and willingness to change, but which do not actually represent substantive technical change. In this sense, Bolman and Deal’s symbolic frame overlaps with two other well-known theories of organizational behavior. First, the idea that teachers might resort to symbol over substance when facing contradictory goals reflects the needs for morale and general organizational survival highlighted by Scott’s (1992) natural systems theory. Second, the emphasis on appearance fits with an institutional theory perspective, in which individuals and organizations seek to be viewed as legitimate within their environment. Institutional theory, for instance, helps explain why national education systems shift toward “reform” within a global environment. Shouse, Bai, and Ma (2017), for instance, suggest that the details and contradictions of suzhi jiaoyu implementation are less important than the global and internal messages it transmits regarding the future direction of Chinese education.

For Chinese teachers, however, the problem is more acute, as the sources of their legitimacy lie in much closer proximity to their daily professional work. They much gain legitimacy with their direct supervisors via (both) compliance with suzhi jiaoyu and the maintenance of acceptable test scores. Moreover, they must gain legitimacy with parents by responding to their expectation of test score success. Overall, symbolic and natural perspectives suggest that teachers (and principals) might learn to effectively support reform efforts in ways
that are more symbolic than functional (Shouse and Lin, 2010). Researchers reported that teachers were expected to approximate reform efforts in their classes, to “muddle through,” and provide an appearance of active and creative student engagement even when not perceiving a clear picture of how to do so. In practice, their behaviors appeared to be symbolic, and little actual functional behaviors related to the reform occur in their class (Li, 2008; Luo, 2012; Ma & Tang, 2002; Xia, 2008; Yan & Zhou, 2008; Zhong, 2005).

Although reform has introduced uncertainty or confusion, and though culture was hard to transform, teachers’ perceptions and actions may tend to evolve over time from symbolic to functional expressions (Bolman & Deal, 2013). As perceptions and meanings are reconfigured, symbolic expressions may serve as an important pathway to eventual substantive reform implementation. Long exposure to the language of reform might lead teachers (actively or passively, consciously or unconsciously) to recast their perceptions of their instruction, like, how they (or ought to) interact with children, what lessons they (or ought to) prepare, the distribution of class time they (or ought to) make, or their sense of role they (or ought to) carry.

Altogether, structural, human resources and symbolic perspectives together indicate that Chinese teachers’ implementation of the suzhi jiaoyu reforms might be influenced by structural goals, responsibilities, and means, teachers’ need and capacity, and teachers’ symbolic behaviors, evolving perceptions and actions. Besides, the literature and empirical studies discussed earlier suggest that under the context of continuous tensions between the traditional education and the reforms, teachers’ perceptions and actions toward reforms were influenced by teacher perceived general beliefs, capacity, and support towards the reforms and exam control (Dello-lacovo, 2009; Luo, 2012; Niu, 2007; Zhang, Zhu and Zhang, 2014).
Chapter Three

Methods

Introduction

China has a long history of examination-oriented education which has been integrated into Chinese culture and society (Dello-Iacovo, 2009; Feng, 1999; Luo, 2012; Niu, 2007; Suen and Yu, 2006; Walker, Qian & Zhang, 2013). The long history of examination-oriented education endures with its long-standing dominance in Chinese educational system, while Suzhi jiaoyu (Quality Education)-a national educational change-presents it in more crystalline terms (Luo, 2012; Walker, Qian & Zhang, 2013). With continuous battles between examination-oriented education and the reforms, the suzhi jiaoyu reforms have been paid a wide attention in China. In particular, teachers’ perceptions and actions toward the reforms have been intensified in the battle (Dello-Iacovo, 2009; Luo, 2012; Zhang, Zhu& Zhang, 2014). Despite attempts at research, a majority of studies reviewed are found to be limited to conceptual explanations of the suzhi jiaoyu reforms. Besides, the research base lacks of a comprehensive theory base to study the reform implementation. Moreover, the existing literature provides limited empirical evidence to address the reform implementation from the teacher perspective, like, how to understand situations where teachers must adopt practices at odds with traditional social norms (Dello-Iacovo, 2009; Guo, 2013; Luo, 2012; Walker, Qian & Zhang, 2013; Zhang, Zhu& Zhang, 2014).

Therefore, this study aimed to bridge the literature gap and shed light on the meaning of school reform teachers perceived. This study is to explore how teachers’ perceptions and actions toward China’s new curriculum reform were influenced by examination-oriented education. The specific research questions are:
• How do teachers’ belief and background embedded in China’s examination-oriented education influence their perceptions and actions toward the new curriculum reforms?
• What barriers and/or facilitators do teachers have to respond to the new curriculum reforms?
• How do teachers’ responses/actions reshape their perceptions of the new curriculum reforms?

**Research Approach and Design**

This study employed the qualitative research approach to explore Chinese teachers’ perception and response toward the new curriculum reforms under the context of examination-oriented education. The qualitative study provided a comprehensive picture to understand people’s perception, behavior and experience, examined the whole context and its interrelated factors for a long time in a natural setting, and focused on a variety of data collection techniques to produce a thick description (Owens, 1982; Rist, 1982). Besides, the qualitative research, according to Rist (1982), was an appropriate approach to explore the process, addressing “how” questions (Rist, 1982). This matched with the research objective of how teacher’s perception and response toward the reforms influenced by examination-oriented education. Altogether, the researcher, through the qualitative research approach, explored the meaning teachers attached to the reform and the way they responded to the educational change in the examination-oriented context.

Under the banner of the qualitative research, the case study was chosen to address the research problem and questions since it offered a means of investigating a bounded case grounded in the context, obtaining information from a wide variety of sources, providing a
holistic and thick description and interpretation of the phenomenon under study, and illuminating meanings (Merriam, 2009). Yin (2008) stated that “case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2008, p.18). The present study conducted a field study of teachers’ implementation of the new curriculum reforms as a contemporary phenomenon occurring in a local school. Besides, according to Merriam, “the bounded system, or case, might be selected because it is an instance of some concern, issue or hypothesis” (Merriam, 2009, p.41). This research studied 29 teachers’ perceptions and responses toward the reform implementation in an urban public secondary school in Sichuan. This case selection offered a specific instance to address the research problem and questions. Merriam (1988) also claimed that “a qualitative case study is an intensive, holistic description and analysis of a single instance, phenomenon, or social unit” (Merriam, 1988, p.21). Under the in-field examination, a thick description of teachers’ evolving perceptions and behaviors towards the reforms in exam-oriented education, as an end product, illuminated and formed with meaning and insight in this case study.

**Site, Sample Selection and Role of Researcher**

The researcher conducted the field research in the Grace School in May and June, 2015, taking 10 class observations, 29 teacher interviews and document analysis to learn how teachers perceived and responded to the new curriculum reforms in the context of examination-oriented education. The Grace School, throughout more than one hundred years, had a renowned reputation as an urban public secondary school in Sichuan and also gained much respect from parents and local communities. This school, since establishment, had a long history of
examination-oriented teaching and learning. Teachers, students, and the administration in this building all had huge enthusiasm in pursuing exam achievement. With the rich testing tradition, the Grace school maintained its success in the NCEE and sustained this reputation over years among parents and local communities. Facing the intensive testing pressure, this school muddled through with the newly-arrived educational reforms.

In order to achieve as full an understanding of the phenomenon being studied as possible, this qualitative case study purposefully selected 29 teachers in the Grace school to participate in this research exploring the research problem. This case study used the purposeful sampling since it provided the researcher with the rich information to learn the case from different perspectives and gain in-depth understandings, insights and meanings teachers attached to the reforms. To seek for the rich information and variation, variables of the interest—gender, grade level, subject, teaching experience, class size, and educational degree—were considered in this study.

In the case study, the researcher was the primary instrument of data collection and analysis (Merriam, 2009). The researcher grew up in Sichuan which benefited the study in better understanding the local context during the data collection and analysis procedure. The researcher was able to collect data in the language most comfortable for the interview participants. To scaffold understanding, reflecting memos were used during the data collection process. The memos helped the author reflect on the data collection process, with considerations for the author’s own values, biases and how the experience impacted the data collection and analysis. The translation process from Chinese into English was an important aspect to data analysis, which encouraged the author to reflect on content and cultural context of the information gathered. The influence of language and culture on data collection and analysis added a rich layer of understanding and interpretation to both processes.
Research Strategies

This study employed the snowball sampling technique for data collection, since the researcher knew some local school teachers in Sichuan who helped work as a gatekeeper for the study, and referred other participants to the researcher, and we shared mutual trust. This gave the study access to the school and people involved. To address the research problem and questions, the study featured a variety of qualitative methods. It pursued information around the classroom instruction by making careful observations. Accompanying with observations, the study included semi-structured, face-to-face interviews and document analysis. These three types of data sources were complementary to each other, increased the validity, and checked and confirmed information (Owens, 1982). This study applied the emergent plan for an interactive process of collecting data from which data analysis was developed, since data collection and analysis being conducted simultaneously directed what to be collected, how to check and conform, and what to be extended (Owens, 1982).

Data Collection Techniques

Rist claimed that “Stated differently, the greater the alternative sources of data employed in the analysis of a setting, the greater the possibilities for accuracy and a holistic presentation” (Rist, 1982, p444). This study employed three types of strategies for data collection: observation, interview, and document analysis. This combination of multiple data sources provided holistic information, strong evidence and in-depth analysis to address the research problem and questions, and offered the opportunity to triangulate for validity.

Observation. Field observations were included in data collection because observation as a major means to collect data provided the firsthand account of the phenomenon being studied
The researcher conducted 10 observations of class sessions, each taking forty minutes. The classroom session was an apparent, direct and observable indicator of how teachers responded to the reform in practice, like, how teachers and students interacted or what was emphasized in the actual teaching and learning. Those in-class observations were the first-hand, concrete source to address the research problem and questions. Besides, those classroom observations were conducted across different subjects, grades, teachers from different backgrounds. Different perspectives were thus provided to study the research problem. All observations were allowed by subject teachers to be conducted in the classroom. All observations were guided by the observation protocols, and the researcher kept taking field notes which were used for the data analysis. Observations helped serve as a bridge to sample possible interviewees.

**Interview.** Interview was another data source employed in this study, because it helped learn more about “how the participants in the setting perceive their environment, understanding their actions, and anticipate the views and behaviors of others” (Rist, 1982, p444). The researcher used the snowball sampling to reach participants, and totally interviewed 29 teachers across different subjects, grades, and backgrounds through conducting semi-structured, face-to-face interviews. Each took around one hour or one and a half hour at the places in the school. The interviews were conducted in the teacher office, cafeteria, recession lounge, art display room, and sports stadium. All interviewees in this study participated willingly knowing the nature of research work, and the experience level of the researchers. All interviews followed the semi-structured interview protocol, and were recorded digitally, and were conducted in Chinese following with interview memos for reflection, and transcribed in English for analysis purposes. All interviewees’ names were changed for fake names, and interview data would be safely destroyed at the end. Interview data directed what to check and confirm in observations.
Document analysis. The final data source applied in this study was document analysis, because “documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem” (Merriam, 2009, p.163). To address the research problem and questions, documents related to China’s new curriculum reforms and exam-oriented schooling were collected and analyzed for understanding. Types of document materials included policy documents and relevant materials displayed in the participating school, like photos, pictures, or posters. Besides, since teacher’s belief and response toward the reforms were critically important for the present study, teachers’ lesson plans, writing reports regarding the reform implementation, and teaching materials were included for documentation analysis. The data from document analysis was supplementary to interview and observation.

Data Analysis Techniques

Merriam stated that a step-by-step process of data analysis, based on the constant comparative method, was inductive and comparative (Merriam, 2009). This process included “the naming categories, determining the number of categories, and figuring out systems for placing data into categories” (Merriam, 2009, p.207). Data collection and analysis in this research were conducted in a highly interactive process in which the data analysis developed from the data collection, and as well directed the collection to check, confirm and extend. As data regarding questions of broad scope was initially collected in the field, the researcher furthered the work through long time spent on field observations, rich conversations interviews provided, and analysis of relevant documents. Interview transcripts, observation notes and document analysis were first coded in a process of open-coding. Following the preliminary
coding, the researcher tried to fully understand what the data mean and made decisions as to what to check and how to verify as the investigation developed. While collecting the data, the researcher also analyzed data, developed a codebook, took filed memos, and carefully examined the emerging and evolving codes to find the meaning and refine the understanding. Besides, the researcher continued the triangulation of interview, observation and document analysis for rich data from different perspectives, along with confirming the validity and deciding what to extend. Later efforts were placed into forming categories (themes) through axial coding, and common findings of this work were finally drawn from the data analysis.

**Reliability and Validity**

In the qualitative case study, validity and reliability were major concerns (Merriam, 2009). According to Merriam, “reliability-the extent to which there is consistency in the findings-is enhanced by the investigator explaining the assumptions and theory underlying the study, by triangulating data, and by leaving an audit trail, that is, by describing in detail how the study was conducted and how the findings were derived from the data” (Merriam, 2009, p.234). In this study, the researcher employed Bolman and Deal’s three frames-structural, human resource, and symbolic-as the theoretical frame and applied the qualitative case study including the combination of interview, observation and document analysis to study how teachers’ perceptions and response toward the new curriculum reforms in China were influenced by examination-oriented education. Through the theory base and research approaches, sound evidence from the variety of information was demonstrated and produced a holistic thick description as the research end product.
Validity was “the extent to which research findings are credible” (Merriam, 2009, p.234). This study employed the techniques of prolonged data-gathering on site and triangulation. An extended period of time immersed in the field was critical for the qualitative case study to address the research problem and questions. The prolonged time spent in the field helped the researcher sort the significant from the context, gradually deepen the understanding toward the studied phenomenon, and as well aware and clarify bias (Owens, 1982). Over the prolonged time in the field, the researcher kept logs functioning as a record of decision makings and their reasoning that entered in the research process and also the feelings, guesses, struggles, perceptions, hunches the researcher had to understand the phenomenon under study. Second, the combination of interview, observation, document analysis worked as triangulation to cross-check data sources and to assure the accuracy of information being collected (Owens, 1982).

**Limitations**

The case study had been regarded as a distinctive form of empirical inquiry to address the research problem and questions, although many researchers maintain critical of its design. On one hand, the unique characteristics of case study research provided the rationale for its selection. On the other hand, it presented limitations in its usage. Researchers made efforts to minimize these limitations through sound protocol and methodology. The issue of generalizability had plagued qualitative investigators (Merriam, 2009). The question of how generalizable the results of a research study was attacked as limitation because the qualitative case study aimed to explore the specific case and its sample was small and purposeful. Therefore, the qualitative case study lacked of representativeness. However, the fact was that the qualitative case study intended to discover the meaning and insight as opposed to generalize. Besides, the issue of transferability in
qualitative research work was another limitation to be criticized (Merriam, 2009). In this case study, a specific group of 29 teachers in a secondary school in Sichuan, China were under study. Whether the findings in this case study were able to be applied into another case or situation would be critiqued. The research might provide sufficient descriptive data to increase transferability.
Chapter Four  
Data Analysis

This chapter systemically presents data gathered from interviews, in-field observations, and document analysis describing and reflecting the perceptions and actions of teachers who encountered, implemented, or influenced the new curriculum reform in the Grace School within its long history of exam-oriented education. The chapter begins with a description of background information necessary for providing a context for the case. It then provides narratives describing three types of teachers: teachers who resisted the educational reforms, teachers who tried the reforms but perceived them as having failed, and teachers who had some success in implementing the reforms. These descriptions attempt to capture a broad portrait of three types of teachers’ views and responses. In the end, the general emerging themes regarding teachers’ perceptions and actions toward the educational reforms within the exam-oriented education will be presented and discussed. While, this chapter presents a broad of teachers’ views and actions, Chapter Five will focus on answering the research questions by synthesizing and highlighting the main themes emerging from the data into three lenses: the structural lens, the human resource lens, and the symbolic lens.

Context

The province of Sichuan, located in the southwestern part of China, has a long history of examination-oriented education, especially at secondary schools from Junior 1 to Senior 3 (from 7th grade to 12th grade) (Luo, 2012). In Sichuan, the high-stake exam system has been a critically dominant means to evaluate student achievement, teacher capacity, and school performance. In particular, the National College Entrance Exam (known as Mandarin Chinese,
Gaokao), the centrally dominating Chinese educational testing system, has been a highly-selective means to sort high school graduates for college education (Luo, 2012). The documents gathered in the field revealed that compared to primary schools, secondary schools in Sichuan were most influenced by the high-stakes test pressure. Some subject areas experienced more pressure than others. For example, the subjects of Chinese, mathematics, and English were highly tested in the Gaokao. The subjects of physics, chemistry, biology, history, politics, and geography were moderately tested. However, the subjects of physical education, art, and music were far less tested. In particular, in those subject areas with test pressure, test-taking skills such as rote memorization, recitation, or cramming, received high emphasis. In addition, teachers at secondary schools tended to take center stage as the source and transmitter of knowledge, while students took a more passive role (Luo, 2012; Zhang, Zhu & Zhang, 2014). Within this tradition, the exam-oriented teaching and learning have been standardized into secondary schooling in Sichuan.

As previously discussed, the Chinese government has called for national educational reforms, known collectively as “Quality Education” (Suzhi Jiaoyu, 素质教育), to attain the broad educational goal of developing well-rounded individuals rather than people whose single distinction was examination performance (Dello-lacovo, 2009). The reform emphasized the development of diverse student qualities from moral, intellectual, practical, aesthetical or physical perspectives (Dello-lacovo, 2009). Suzhi jiaoyu aimed at changing educational objectives, curriculum, and instruction in basic (primary and secondary) education to meet the educational goal of cultivating a well-rounded person. Reforms called for educational changes – an emphasis on creativity, student-centered instruction, practical skills, and lifelong learning (Dello-lacovo, 2009; Luo, 2012; Walker, Qian & Zhang, 2013). As this top-down reform spread
downward to local areas, secondary schools in Sichuan were pressed to balance their long history of examination-oriented education with a more progressive and student-centered approach.

For more than one hundred years, the Grace School has earned a renowned reputation as an urban public secondary school in Sichuan for quality academic tradition, and has gained much respect from parents and local communities. The Grace school serves 4,328 students: 2,096 at the junior school and 2,232 students at the high school level. The campus consists of three major functional buildings, the junior school building, the high school building, and the administration building. In addition to its well-known reputation for exam achievement, the school has a sound reputation for sports, music, and arts. A typical school day in this boarding school starts at 7:30 am with a twenty-minute morning reading session. This is followed by five subject sessions, which end at 12:10 pm. After two-hour noon recess, the afternoon class sessions begin at 2:10 pm. It consists of three subject sessions and one session of student-self-study, and finishes at 5:45 pm. In the evening, starting from 6:50 pm, three sessions of student-self-study are scheduled for the student homework. At 10:10 pm, the school day finishes. The typical class period was 40 minutes, and the typical class size was around fifty students. Each class remains together for the entire sequence of high school, in the same classroom, receiving all course instruction from teachers who traveled room to room during the day. In typical style, teachers stand at the front of the classroom where the blackboard and podium were set, and students sit in rows taking notes with high piles of textbooks for different subjects on their desks. Walls of classrooms and hallways were decorated with a variety of slogans of wisdom, student activity pictures, displays of student awards, and works of art, along with school mottos, regulations, class agreements, and other important school related information.
According to the data gathered in this study, the Grace school had a long history of examination-oriented teaching and learning. Teachers, students and the administration in this building had huge enthusiasm for pursuing high exam achievement. With this rich tradition, the Grace school successfully attained its achievement goals for many years in the National College Entrance Exam (Gaokao) and High School Entrance Exam (known as Mandarin Chinese, Zhongkao) and sustained this reputation over years among parents and local communities. The documents gathered in the field revealed that most of students at the Grace school had been successfully admitted over many decades by colleges and universities. The school also had a tradition of students participating in the National Contests in mathematics, physics, chemistry, and computing. The school even encouraged students to attend international contests in different disciplines such as the International Math, International Science Olympic Contests, or American National Math Contest.

Documents indicate that the Grace school had been named a “pilot school” by the State Education Commission to carry out educational reforms in Sichuan. In the early 1990s, Grace School began publicly announcing its transformational principles regarding the cultivation of well-rounded students on its official website, in promotional brochures, and the official school bulletin board. In addition to basic knowledge and skills, thinking skills, practical skills, and creativity were given more credits by the Grace school. The school held up the belief that teaching should be responsible for facilitating and cultivating students’ initiative and independent thinking. The school also announced the importance of student-centered development. Teachers became expected to know more about their students’ needs and interests, and facilitate their students to become “quality” graduates and citizens.
To respond to these guiding principles, according to the data gathered in documents, the Grace school developed its educational changes through refining the curriculum structure to “provide more opportunities and care for students’ interests, capacities and potentials.” The curriculum was restructured to balance fundamental compulsory courses, elective courses, classes of interest, and extracurricular activities. Since the early 1990s, the school started the experiment of implementing this change within one classroom at senior one (the first year of 10th grade) and gradually spread across classrooms at different grades. At present, the reform structure has spread through the entire building. In this revised curriculum structure, compulsory courses shared the stage with other courses and activities reflecting students’ various interests, needs, and skills, with the aim of enhancing their individualized growth. Based on the data gathered in the field, electives or extracurricular activities usually tend to be arranged within two straight class sessions of ninety minutes on Friday afternoons every week. The options provided to students varied from sciences competitions, language and literature, math and sciences, humanities and society, economics, technology, arts, sports, and music, to other comprehensive experiential activities. Furthermore, after two years of research and exploration, the school leadership, in 2014, began the classes of interests, (known as Mandarin Chinese, Mokuai Ke) in the subjects of physical education, art, and music. The main objectives of these new courses were to offer students opportunities to develop their interest and provide teachers with opportunities to teach their competent concentrations. In order to better serve the individual growth, variations in content options and a small class size were provided.

The documents gathered in the field also revealed that in order to develop students’ practical skills and creativity emphasized by the educational reform, the Grace school tried a strategy of project-base explorative learning. During 2013, for example, high school students at
the Grace school launched 348 exploratory research projects. At the junior high level, students launched 146 exploratory research projects. The exploratory projects included varied themes such as bio-agricultural plants, a physics museum, food science, computer science, fashion designs of school uniforms, and the problem of local air pollution. The projects were typically presented and showcased in hallway poster sessions for which students received various awards from the school. At the time my research was conducted (2015), numerous student research projects were on display in the first floor hallway in both the junior high and high school building. In addition, projects were displayed and creative works were sold at the Annual Student Festival. Examples included a display of robotics, t-Chinese fans with calligraphy writings, hand-made poster cards with personalized messenger services, music performances, and student-fashioned shirts.

Furthermore, the data gathered in documents and in-field observations indicated the various ways in which Grace School implemented professional development activities for teachers. For example, professional seminars and lectures were offered to deliver advanced knowledge and expertise related to teaching and learning. A mentor System was made available for novice teachers to seek advisement and training from more experienced colleagues. Classroom observations and demonstration classes were tracked and evaluated to promote quality of instruction, or to target for more advanced instruction. Research projects related to teaching and learning were encouraged by the school to enhance head subject teachers’ professional development.

As a pilot school, Grace School attempted to carry out educational reforms in Sichuan, publicly announcing its newly-aged educational objectives of cultivating high-level developed intellectuals with well-rounded moral, intellectual, physical, and aesthetic qualities. However,
facing the intensive pressure to secure high exam achievement, the process of implementing the newly-arrived educational reforms might be described as one of “muddling through” – trial, error, and occasional modest success. Most notably, the grade of senior 3 (the final high school year) was apparently regarded as a vacuum of educational changes due to the closely intensive high-stake pressure triggered by the National College Entrance Exam. Under this situation, on the one hand, the school leadership and educators placed great emphasis on the exam achievement in order to place qualified graduates in higher level of schooling. On the other hand, they also tried to develop students into unique, intelligent, diligent, and creative persons. In this sense, the Grace School made efforts to build up its new educational blueprint triggering the confluence of securing the exam achievement, cultivating the uniqueness of individuals, and developing proactive students in learning. This proved to be no simple task.

**Teachers’ Views and Responses toward the Reforms**

In light of the interview responses, observations, and document analysis, the discussions in the following two sections help reveal teacher’s views and behaviors on responding to the reforms, and present the general emerging themes. Based on my interviews and observations, three categories of teachers appeared to emerge. First, there were teachers who resisted the educational reforms. Second, there were teachers who tried the reforms but perceived them as having failed. Finally, there were teachers who had some success in implementing the reforms. These descriptions attempt to capture a broad portrait of three types of teachers’ views and responses. Besides, the following section presents the general emerging themes. The discussion of general emerging themes demonstrates teacher perceived educational goals, teacher perceived roles, teacher perceived pedagogies, and how they have influenced teachers’ response toward the
reform, illustrates teacher perceived barriers and facilitators in their response, and explores teachers’ evolving perceptions, beliefs, and actions as they grapple with reform demands.

**Three Major Types of Teachers**

This section provides a broad landscape of twenty-nine teachers’ views and actions toward the educational reforms. Through the data analysis, the interview responses and in-field observations together revealed that there were three types of teachers: teachers who resisted the reforms, teachers who tried the reforms but failed, and teachers who had some success in implementing the reforms. These three groups are more like “tendencies” or “modalities”, not discrete groups. The following three chunks respectively provided these three types of teachers’ views and actions toward the educational reform in the exam-oriented education.

**Teachers Who Resisted the Reforms**

The data gathered through observations and interviews all indicated that exam achievements, in particular on Zhongkao and Gaokao, had dominated schooling practices at the Grace school for many decades. Upon gathering and reviewing my data, it seemed that some teachers possessed an attitude of general resistance to the reforms. These teachers maintained the dominance of exam-oriented teaching in their class, and mainly gave symbolic responses to the reform policies. Although they spoke highly of new ideals in educational reforms, they still maintained exam achievements as their major goal and responsibility within their daily classroom.

For example, an experienced math teacher who spoke highly of the educational reforms still maintained and emphasized the traditional exam-oriented teaching. At the time of the
interview, he taught two classes in senior 1 (10th Grade) of forty-two and forty-five students respectively. For each class, he had six regular math sessions in total from Monday to Friday, at least one session of forty minutes for each day. He was also in charge of assigned sessions of student self-study at nights. He had taught the subject of math for ten years after he got his bachelor degree in math education. After our interview, he allowed me to observe a forty-minute class session. At the beginning of interview, he heavily described the influence of exam achievements on his daily teaching to help me understand his sense of “exam desire”. He stated:

The educational evaluation system heavily stressed using test scores to screen students’ educational promotion opportunities, track their growth, judge teacher performance, and maintain school reputation. Students, teachers, the school leadership, and even the whole society attached high importance to the exam achievements, in particular to Gaokao. Both the individual pursuits and the social educational desires directly and intensively pressured me, during my teaching career, to realize that exam achievements had to be the first important goal of my daily teaching.

His statements revealed that under the high-stakes of exam evaluations, exam achievements were perceived as both the social norm and the structural goal. The teacher had agreed with it for long years. He went further to describe the determined impacts of exam achievements as the fundamental goal on his long-developed, consistent teaching behaviors:

During my ten years of math teaching, Gaokao was the fundamental goal that totally determined my teaching. For the portions of the textbook that were not tested in the Gaokao, I just skipped them in my teaching. For the portions referred to briefly by Gaokao, I lectured on them once, and did not give them much emphasis to students. However, for the portions heavily examined in Gaokao, I paid all of my attentions to
them. I mean, I used the lectures to quickly deliver them for the first time. After that, I had more time to do the several rounds of review sessions and tons of testing exercises. At the same time, I strictly pushed my students to follow my words and recite and memorize those portions. This was my way, over the years, to effectively secure the exam achievements in my class.

His descriptions provided a clear sense of how the fundamental goal of high-stakes exam achievements determined the choices of teaching contents and pedagogies. When asked his views on the educational reforms, he first responded by describing his initial year encountering the reforms:

In the first year when the new curriculum reform was introduced in our school, teachers, not only me, suffered a lot. On the one hand, the high-stakes exams hung over our heads. On the other hand, new ideals came in. Confusions and worries started widely spreading among our teachers: Did Gaokao respond to the reform? What portions of the reform would be examined in Gaokao? To what degree should teachers deliver the new curriculum to students in order to avoid threatening their exam achievements? However, nobody at that time had clear answers. But, we were all certain that the high-stakes exam evaluations still dominated. Therefore, to deal quickly with the uncertainties, I still focused on exam achievements and maintained my traditional teaching style in class.

His response seemed that as the reform introduced uncertainties, teacher’s technical behaviors were maintained to attain the structural goals perceived as more certain and stable. The teacher was then open to go further to describe his following attitudes toward the reform:

I heard over the professional meetings and training workshops that the new curriculum reform introduced new objectives, contents, and new ways, such as creativity, student-
centered teaching, or student participation. I thought they were good new ideals. For example, student discussion, I mean, I wish my students, most of the time, were thinking, discussing, or solving problems, while, I talked less and stepped back to facilitate them. However, back to the real world, I deeply worried that whether this new way would assure the exam achievement. So, I dared not to try it in my class. Although I thought that some new contents in the textbook were practical to our students’ daily life, I found they were not heavily tested in Gaokao. So, I just briefly lectured on that within a short time. I wished to develop students’ well-rounded qualities but I realized my major responsibilities were to first promote exam achievement and satisfy the exam-based evaluations. Therefore, I hesitated to try those new ways in my class.

The interview responses above revealed that the teacher appreciated the reforms “in-theory” but found them impractical in reality. Still, the structural goal of exam achievement was perceived as the first important responsibility to serve. So, it hindered teacher’s willingness to take full use of professional development opportunities, even though they were provided. Besides, the teacher perceived the new role of being the facilitator which was different from the traditional teacher role. However, since he was not assured of the new roles’ consistency with the structural goals, the teacher was reluctant to try the new roles. The math teacher continued to provide another factor of teacher perceived comfort zone which hindered his willingness toward the reform. He said:

Those new ideals were very different from my experience of the exam-oriented teaching. For ten years, I agreed with the values and norms of testing I pursued for and I felt I was becoming effective. More importantly, I was so assured of my ways. I felt motivated by my success. If I tried those new things, I would need to rearrange or even abandon my
long-established teaching goals, norms, roles, and habits. Unfortunately, I did not know how to make this happen. Even if knew, I would gain many additional teaching burdens, drag myself out of the comfort and certainty, and push myself horribly to take a new adventure. I felt the transformation for me was difficult, and I was still reluctant to step forward.

According to this response, the emerging themes arose: teacher perceived motivation and capacity. Teacher’s personal needs, interests, and motivations were congruent with the structural goals, but incompatible with the reforms. In order to consistently serve the structural goals and satisfy the inner motivation, the teacher reshaped behaviors being reluctant to try the reform. On one hand, teacher perceived self-efficacy long assured the technical certainty of achieving the structural goals. On the other hand, new ways provided the teacher with uncertainties and a perceived weak capacity to implement the reforms. Therefore, his willingness to try the reform was greatly inhibited.

Shortly after this interview, the math teacher allowed me to observe his senior 1 class. He stood in the front of class for the most of time. At the beginning of class session, he reviewed the knowledge points from the last class session. He first asked the whole class to answer his short questions to check their mastery. He then wrote down and briefly reviewed the key knowledge points on the blackboard. Students took notes. After this, he again called on either individual students or the whole class to answer his questions. In the second part of session, he employed the example demonstrations to deliver three new teaching tasks. He first assigned students to finish the example question in the textbook, and walked around for observing students. After all students were done, he spent about three minutes calling on two students to describe their work. He then spent more time lecturing on key knowledge pointes and providing his solutions on the
blackboard. Students listened to him and took notes for the following reviews and memorizations. Immediately, he used another two rounds of example demonstrations. His following teaching ways were as the same as the first round. In the end, he wrapped up and assigned homework.

My observation provided first-hand evidence of his consistent interview responses, and gave a clear demonstration of his pedagogies. It seemed that most of the class time, he performed and directed, while, students passively followed. The teacher did provide opportunities for students’ vocal presence, but for a few minutes. Traditional teaching still dominated his lesson, with a symbolic “tip of hat” toward student participation. In addition, the teacher functioned in the role of expert, transmitting knowledge, providing answers, and directing students.

Another junior school English teacher described his resistance to the educational reforms. At the time of the interview, he taught two classes in junior 3 (9th Grade) of forty-six and forty-seven students respectively. He had fourteen years of teaching experience. At the time of the interview, his two classes in junior 3 were about to take Zhongkao. At the beginning of the interview, he described the influence of exams on his teaching:

Since I started teaching English, the high-stakes exams for many years had been the most significant evaluation system, having widespread impact on my teaching. Test content totally determined my choice of teaching method. Due to the exam pressures, I did not place much effort in teaching English speaking and listening, because there wasn’t much of that on the exam. Instead, because there was a lot of English writing and reading on the test, this was my focus. In terms of English reading, the intensive exams pushed me to use effective lectures and demand that students do tons of drills to strengthen their testing skills. If there was little exam pressure, I would spend more time in training students’
English speaking, listening, thinking, or problem solving skills. Unfortunately, this wasn’t the reality in my class.

His response again suggested that the goal of exam achievement and its structure of high-stakes evaluation intensively determined teachers’ attentions, efforts, and choices in content and pedagogy. Due to the exam pressures, the opportunities given to the thinking or problem solving skills the educational reforms introduced were limited. The English teacher spoke further, providing a specific example to illustrate his actions toward the reforms under the exam pressures:

For example, once the theme of the English unit in the textbook I taught was environment pollution and protection. To my knowledge, the contents of this unit, like words, phrases, sentences, patterns, or tenses, would be heavily examined on the exams. All of my efforts were placed into using lectures and many repeated testing drills to reinforce student mastery of this content. Although I thought the unit theme the new curriculum reform introduced was very practical to students’ daily life, I hesitated to spend much time in my class to provoke student discussions, train their problem-solving, or deepening their thinking. I was afraid that these new ways would take time away from exam achievements. If there were neither high-stakes test pressures nor the real threats the new ways brought in, I would like to give it a try, since the comprehensive development provided students with lifelong benefits, while exam achievements were just a stage goal. However, I was not assured there were no significant threats to student scores.

His example provided a better sense of how the high-stake evaluation structure determined teachers’ long-developed classroom behaviors by hindering their willingness and confidence to try the reforms. Although speaking highly of new ideals, the teacher sharply
perceived the conflict between the exam achievement and the reforms. To consistently serve the high-stakes structural goal, he felt reluctant to try the reform in his behaviors. The English teacher discussed other factors hindering his response toward the reforms. He said:

   Especially in junior 3, all of my attention, time and efforts were oriented to Zhongkao. To better serve Zhongkao, I demanded my two classes to do lots of testing exercises and repeat their memorization and recitation of examined content, model solutions, and testing skills. Based on my experience, this ways turned out to be very effective to secure my students test scores. In junior 1 or junior 2, in addition to the dominant exam-oriented teaching, I sometimes spent at most several minutes in the student discussions and presentations. I thought my large class size was not compatible with the means of student discussions. It was impossible for almost fifty students to make individual vocal presence within the limited class time of forty minutes. Also, I did not have good knowledge of how to facilitate the student discussion in my large classes. I usually, in my class, called on either several students or the whole class to answer my questions.

   The interview response revealed that junior 3, the grade in which students take Zhongkao, was a vacuum in terms of the educational reforms. Even in lower grades far from the Zhongkao exam date, the teacher offered mainly symbolic responses toward the reforms. Apparently, his perception of limited class time and large class size, along with his perceived limited capacity, together hindered his willingness to try the reforms.

   Furthermore, an experienced geography teacher demonstrated her long-developed, deep enthusiasm on the exam achievements but indifference toward the reforms. At the time of the interview, she taught two classes at senior 1 (10th Grade), forty-six students and forty-nine
students respectively. She had taught geography for fifteen years. She was quite open to talk the influence of high-stakes exam in her teaching:

Gaokao had been, for many decades, the only dominating significant evaluation system to judge students’ academic achievement and promotions. As a teacher, I was not able to change this evaluation system, but I could do my best to adapt to and serve it. I had been responsible for my students’ educational promotions. My choice of teaching contents had been totally oriented toward Gaokao. Lectures had been effectively used to deliver those examined contents. Rounds of repeated review sessions and testing drills were utilized to strengthen my students’ testing skills. I pushed my students to repeatedly memorize and recite those examined contents which I highlighted on the blackboard.

This teacher correspondingly provided a repeated emerging theme of the goal of exam achievement and its technical structure of high-stake exam evaluation. These structural features exerted powerful effects on teacher perceived responsibilities and their choice of teaching content and pedagogy. She described her roles in delivering teaching to her students:

I thought I had been the leader in my class as long as I had taught. On one hand, I had superior expertise in identifying the emphases and basics of the exams and quickly and effectively delivering them to my students. I strictly forced students to follow my deliveries and repeatedly practice, memorize, and recite the lessons. On the other hand, my students were developing their knowledge and skills, especially in lower senior grades. They felt their performance was not as good as my summaries. They relied more on me. So, I had no choice but to be the leader safeguarding students’ exam achievements.

The described leader roles in teaching were functioning as the professional expert. In order to consistently serve the structural goals and effectively guarantee the technical
responsibilities, the teacher tended to employ the role of being the professional expert to demand the standard outcome, and avoid the performance deviation. She further stated her responses toward the reforms:

When I started teaching, I wanted all of my students to be quiet, paying all of their attention to my words. Gradually, I did refine [my teaching], but slightly. For example, after the new curriculum reform, I sometimes took a couple minutes to call on several students to express their thoughts. However, the exams heavily pressured my sessions. I usually lectured most of the time in order to effectively finish up all teaching tasks. Even now, I think there are no fundamental changes in my teaching.

The teacher provided a repeated emerging theme: the structural goal of exam achievements hindered the instructional change. To serve the technical goal, the teacher mainly maintained the traditional ways perceived to be proven effective. If available, she placed some limited time into allowing student participation. She further provided another factor of teacher perceived motivation and comfort zone hindering the willingness to try the reforms:

During fifteen years, exam-oriented education had dominated in my class. The exam achievement had been my fundamental motivation. I was really good at teaching for exams and raising exam achievements. I enjoyed my work. Later, I was notified in those professional workshops or seminars to adopt the ways of the new curriculum reforms. Those professional trainings pushed me to deny my previous performance, or even think of myself as incapable. I naturally felt that my previous teaching was regarded by other people as not good enough. But, I thought my ways mattered. My feelings got hurt. Therefore, although I thought of those new ideals as sound in documents, I was still reluctant to try the reforms hard in my class.
The interview response contributed to the emerging themes: teacher perceived motivation and capacity. Teacher’s personal needs, interests, and motivations were congruent with the structural goals, but incompatible with the reforms. In order to consistently serve the structural goals and satisfy the inner motivation, the teacher reshaped behaviors, at times, giving “lip service”, but reluctant to try the reforms. Besides, teacher perceived self-efficacy grew when consistently meeting the demands of the exam achievement. In order to avoid threatening their self-efficacy, these teachers hesitated to approach the reforms, even when professional development opportunities were provided.

**Teachers Who Tried the Reforms but Perceived Them as Having Failed**

The observations and interview responses revealed that after the introduction of the reforms into the Grace school, the educational fever toward the exam achievement still dominated in the schooling. However, here came into sight the second type of teachers who tried the reforms in their class but perceived as being failed. On one hand, this type of teacher consistently strived toward the structural goals of high-stakes exam achievement. On the other hand, they agreed with the new ideals in the reforms, and were willing to give them a try in their class. Over time, however, they experienced the continued setbacks using the reforms.

For example, an experienced math teacher tried the reforms and encountered intensively hard challenges most of the time. At the time of the interview, however, he was still trying. This math teacher, at the time of the interview, taught two classes in senior 1 (10th Grade) of forty-five and forty-two students respectively. Each class met for six regular math sessions in total from Monday to Friday, at least one session of forty minutes for each day. He taught two straight sessions of elective math courses every Friday afternoon. He had taught the subject of math for
twenty-three years and had Master’s degree in math education. Though I had not originally approached him for an interview, he voluntarily approached me for a talk after hearing of my study from another math teacher I interviewed. Our first interview covered 90 minutes and he allowed me the next day to observe one class session of forty minutes, following up with a short fifteen-minute interview to discuss the observation. One week later, he happened to meet me in the hallway after he finished a math session and scheduled a half-an-hour discussion with me on the instructional problems he encountered in that session. In his first interview, he started with a general statement of his fundamental goals, the choice of teaching pedagogies and the major current problems he encountered in class. He said:

In general, no matter what pedagogies I chose, the exam achievement had been my first important goal to pursue in the daily teaching since I started work. It had been consistent with the expectations of school leadership and parents. In class, I focused on Gaokao exam materials. But, I believed that after my students graduated from high school, the contents I taught would all be gone one day. What was left, and how they changed individually during three school years were the key to their life-long development…. The exam achievement was the important stage goal. Although I had no choice but to teach Gaokao contents, I had opportunities to try the pedagogies I was interested in. In addition to keeping traditional class activities, I tried to increase student participation, thinking skills, problem-solving skills, and self-directed learning the educational reforms introduced…. I hoped the new ways would boost exam achievement. I stuck with implementing the new ways.

His opening statements provided a broad landscape of his perceptions and actions toward the reform and exams. His choices of instructional content and pedagogy kept consistent with the
structural goal of exam achievements, even when he tried the new methods. Though he may have had some doubts about his capability, he was interested in finding new ways to satisfy both the exam needs and student long-term development. He then went further briefly describe his transformation in teaching:

When I started teaching, all my attention focused on the textbook and the exams. I worked crazily hard on delivering the whole lectures…. and demanding repeated testing exercises. My initial work was normally exam-oriented teaching and I tended to focus more on my own performance. Gradually, I was more capable of effectively delivering exam-based knowledge. I started to pay more attention to student response…. In 2012, I came to the Grace school and taught a class at senior 2….After this class succeeded in Gaokao, people began approving of my teaching. Later, after I had more power and confidence through successful exams, I tended to shift the focus toward students: What did my students desire? What interested them most? How can I better serve them? Or, how can I achieve both exam achievement and well-rounded student development?

His words revealed that throughout the teaching evolutions, achieving the structural goal of exam achievements had been the first important responsibility, and determined his technical job survival. As he was capable of achieving the exam successes, the teacher shifted the focus from himself to students. Due to his success in exams, the teacher gained more power and opportunities to care for student interests and needs. Still, to be consistent with teacher perceived structural goal, the choice of the new ways tended to both secure the exam achievement and serve students’ interests and needs. In detail, he further described his current pedagogical approach, saying:
My current class session consisted of three parts: self-study, math-problem-solving, and student practice. In the first part of self-study for fifteen minutes students were required to first read the textbook, then finish up its lesson drills, and then do the follow-up discussion. At the same time, I walked around the groups, if necessary, providing advice and answering questions. In reality, all students participated in the readings and lesson drills. But their self-directed learning skills were not good enough. Besides, most of them usually were reluctant to do the vocal participation. They either barely discussed with other students, or seldom approached me with questions.... During the second part of math-problem-solving, I still encountered the same issues. I encouraged my students who had problems or questions to speak out and discuss with the class. However, the reality was that few students raised questions or voluntarily discussed. It turned out that I solved the math problems.... I either delivered my solutions to students, or called on students to answer my questions. Even facing this, I wished my students could argue with me, or challenge my solutions. Unfortunately, few students tried it.... In the third part of student practice, I faced the same issues of student passive vocal participation.... Even now, I did not know how to tackle these issues.

The descriptions revealed that on one hand, the teacher had interest in trying the new ways of self-directed learning, problem-solving, and student participation. On the other hand, he perceived weak capacity to solve students’ passive or weakening responses. Besides, facing his weak capacity in implementing the new ways, he employed the traditional ways to continue his teaching delivery. When asked about the supports he received toward the reform, he said:

I thought the demonstration class provided me an opportunity to demonstrate and improve my performance in using the new ways, and also to learn from other teachers.
Teachers within the same subject in turn presented demonstration lessons for once every semester. Other teachers and professional experts were invited to observe and provide their feedback. For example, in the demonstration class of this semester, I encountered a major conflict between finishing up teaching tasks, I mean, the deliveries of examined contents, and facilitating the student participation. I first spent several minutes in facilitating students to explore the ‘moderate-tested’ content. Then I spent more time to encourage students to participate in discussions. At last, I had one task unfinished. From the feedback I got, the math head teacher directly pointed at my problem and gave me advice. The student participation took longer time than the lecture to deliver the same teaching task. I should be very cautious to select teaching tasks if I insisted with trying new ways to deliver them within forty minutes. The heavy-tested materials should be first served. I agreed with him. This opportunity pushed me to reflect on and improve my choices.

This response revealed that the teacher perceived the conflict goals of both serving the exams and employing new ways. The structure of demonstration class provided an opportunity for the teacher to realize the conflict, or even hopefully solve it through the cautious selections of technical tasks to balance the exam needs and new ways. In addition to the supports, he also talked about the barriers of large class size and limited class time:

On one hand, I wished to recognize student individual interests, needs, and potentials, and serve them individually. If I knew my students individually, I believe I could serve them better. On the other hand, each of my two classes had almost fifty students. I kept asking myself: how could I know their individual interests or potentials? Or how could I
serve them individually within forty minutes? Until now, I had no answers for how to make it in my big class size within limited time. This really bothered me.

This response revealed the repeatedly emerging themes: the structures of big class size and limited class time. The technical structures restricted teacher capacity to care for individual students. He went further saying another barrier of knowledge-based professional training:

Those professional development opportunities regarding the educational reforms provided were sometimes expanding my horizon. However, I usually found they were not useful to me. Most of them I attended were knowledge-based professional trainings. They were ideal and sound in the theory, instead of guiding teaching practices on the ground. They were not practical enough to refer to my class. Therefore, I attended them, but had little interest or understanding of how to transfer the knowledge into my class.

This interview response revealed that the professional training opportunities were not compatible with his interests. He had little interest to use them to improve his teaching practices.

After the first interview with this math teacher, I scheduled an in-class observation the next day. During this observation, the math teacher had a large class size of forty-five students. In the first fifteen minutes, his students sat in rows doing self-study, reading the textbook, and finishing the assigned lesson drills. At the same time, the teacher wrote down the learning objectives on the blackboard and then walked around observing student work. Moving to the follow-up student discussion, he kept encouraging students to talk. However, only a few students discussed or raised questions to the teacher. In the next part of math-problem-solving, facing students’ reluctant vocal response, he wrote a major math problem on a blackboard. He first called on one student for the solution, but failed. Then, a student voluntarily spoke out, but eventually provided the wrong solution. Another two students voluntarily helped rectify the
mistakes and give partial clues. The teacher at last called on a student who provided the correct solutions and reasons. During the remaining fifteen minutes, the teacher lectured the key points. He also wrote down one more math problem, and provided his solutions on the blackboard. At the same time, students listened carefully and took notes.

The observation demonstrated that teacher’s behaviors in class corresponded to his interview response. It revealed that at the beginning, student passive vocal response was the big challenge for the teacher. Although giving students vocal encouragements at first, he tended to increasingly use the call-on strategy to demand student response. There were students indeed voluntarily participating, but the number was just a handful out of 45 students. To face the continued reluctant response, the teacher went back to the teacher-driven pedagogy.

Shortly after this observation, this math teacher took the short follow-up interview with me, saying:

As you observed today, you might recognize that I stuck with the student participation. Initially, I tried hard to use the new ways…. I had to finish up the exam-oriented teaching tasks of each session, but my new ways did not work out. Later, I used the traditional pedagogy to achieve my task. This case usually happened in my class.

This interview response revealed that teacher perceived weak capacity to employ the new ways hindered his willingness to continue. In order to achieve the structural goal, teacher stepped back to the certainty of the traditional ways.

One week later, this math teacher took his third interview with me, further discussing his instructional problems of facilitating passive students. He said:

The big concern I encountered when trying the new ways was that many of my students remained passive. I realized students got used to the memorization and recitation, and the
certainty of standards. They worried about making mistakes when trying new ways. They were afraid of being regarded as a shallow-thinking person. I also recognized many of my students were not good at identifying problems or coming up with solutions by themselves. Or they were not good at making or defending their own arguments. It was easier for them to hide their worries or cover undeveloped skills with silence. Therefore, students hesitated to participate. To face these issues, I encouraged students, building up their confidence. Besides, I persuaded them to give it try through valuing their attempts equally. Until now, I failed to change them. I felt disappointed with my capacity.

According to this, the teacher perceived that on one hand, students had the strong attachment to the traditional leaning habits; on the other hand, they had the reluctant willingness and weak capacity to keep up with the new ways teacher delivered in class. The teacher regarded his weak capacity to change passive students as a factor of the failure to try the new ways. The math teacher went further to discuss his current perceptions of teacher role conflicts:

In a recent session, I asked my students to employ the time-efficient solutions I provided to tackle the math problems. I thought my students did not have capacity or time to come up with the solutions as good as mine. After class, I reflected on my teaching. I realized that on one hand, I expected to be a facilitator, and boost my students’ participation; on the other hand, both my confidence in my superior knowledge and skills over students, and my old habits still stimulated me to take over my students, demanding them to follow me.

This response illustrated the emerging theme: teacher role conflicts. Although the teacher wanted to be a facilitator, his traditional perceptions and habits pushed him to stick with the traditional roles, being a leader or expert and providing the solutions to students.
Furthermore, a male experienced high school politics teacher tried the reforms, but his attempts of balancing the reforms and serving the exam achievements failed. With the failure, he already totally went back to the traditional teaching. The politics teacher, at the time of the interview, taught two classes in senior 2 (11th Grade) of forty-eight and forty-nine students respectively. For each class, he had four regular politics sessions every week in total. He was in charge of assigned student-self-study sessions at nights. He also taught two straight sessions of elective courses regarding politics and economics every Friday afternoon. He had taught the subject of politics for twenty years. He started his interview by saying:

Since I started teaching politics, I was strictly following the textbook….It had been the normal exam-oriented teaching. Later, I encountered with the new curriculum reforms. I started to adapt to them. Under the high-stakes pressures of Gaokao, I still maintained the traditional exam-oriented teaching to secure exam achievements at senior 2 and senior 3. I just tried the new ways at senior 1.

The teacher revealed the repeated emerging theme that the proximity to structural goals produced the grade variation in trying the reforms. When far from the grade taking the high-stakes exams, the teacher had more discretion to try the reforms. On the contrary, as the exam approached, the teacher abandoned the reforms. He further described his adaption to the reforms with his classes at senior 1:

In order to inspire my students’ interests and boost their participation, I employed the new means of project-based learning. I provided options of cases to study. Students groups came up with solutions and reasons, presented their works, and discussed. However, I encountered conflicts. I should have finished up three major tasks within forty minutes. I spent more time in facilitating student discussions of the solutions.
Finally, I could not finish all of my teaching tasks. It squeezed out the task of students’ exam exercises.

This response revealed teacher perceived conflicts between the reforms and structural goals. The teacher threatened the technical deliveries of student exam exercises and failed in balancing between implementing new ways and keeping the structural tasks. He further stated:

After trying these new ways, the class seemed active. Both students and I enjoyed. However, I found that my classes’ test performance in the exams decreased badly. I hurried to stop those new ways in my regular class, and totally went back to the traditional teaching.

This following response demonstrated that the teacher had interests in the new ways. However, the utilization of new ways threatening the structural goals were regarded by the teacher as the inconsistent behaviors, and shortly suspended. At the end of interview, he finally concluded:

After suspending the new ways in my regular class, I just used them in the once-a-semester demonstration class and the Friday-afternoon elective course.

It revealed that the structures of demonstration class and elective courses opened up a window opportunity for teachers to try the reforms. However, these structures provided narrow opportunities, in terms of time frequency.

**Teachers Who Had Some Success in Implementing the Reforms**

The data gathered in the field revealed there were teachers who had some success in implementing the reforms. In particular, teachers who taught tested subjects not only strived toward the goal of the exam achievement but also had some success in trying the reforms. For
example, a Chinese teacher with 27 years teaching experience had success in both exam achievement and reform implementation. The Chinese teacher, at the time of the interview, taught two classes in senior 1 (10th Grade) of forty-seven and forty-nine students respectively. For each class, she had six regular Chinese sessions every week in total. She was in charge of assigned student self-study sessions at nights. She also taught two straight sessions of elective courses in Chinese poetry every Friday afternoon. She started providing her current goals:

Currently, it’s important for me to inspire students, in particular, their interests. So, I gave the class back to students, instead of controlling them…. For me, the delivery of heavily-tested basics was a must…. If I was the only active person in my class, while my students passively responded rather than deep, proactive thinking, my class session would be little helpful to my students.

Her response revealed that she, on one hand, valued proactive thinking skill and hoped to serve students’ needs and interests. She tried to facilitate student participation, rather than always conducting or controlling the class. Her values, interests, and roles seemed to be consistent with the ideals of educational reform. On the other hand, corresponding to the structural goal, she perceived exam tasks as her must responsibility. So, the teacher perceived the both-the reforms and the exams-as her current goals. She went further to describe her evolution in teaching:

Since I started teaching, I focused much on exam-oriented teaching….I was the leader controlling the class and strictly forced students to follow and learn the knowledge I transmitted…. Later, I took the in-class professional training with a seasoned mentor for almost a semester. I was so lucky to have such a good mentor…. I observed that my mentor was good at inspiring students’ interests and facilitating the class. My mentor provided students with a lot of opportunities to talk. Those students actively expressed
their thoughts, discussed work with each other, and also did a good job on exams. I realized that actively participating students produced good learning outcomes. This motivated me. Back to my own class, I started to adjust my teaching behaviors.

Her interview response revealed that her professional training from a mentor provided her with a supportive and inspirational experience, motivating her to start a teaching transformation. She became armed with persuasive experience and new confidence after observing the new ways’ success. More importantly, she was internally enlightened and realized the value of the new ways. This boosted teacher’s motivation to start her own teaching transformation. She continued describing her transformation:

After trying new ways, I perceived an internal transformation process. I gradually stepped back, facilitating my students to participate and boost their interactions. My efforts increasingly improved. I realized that my positive behaviors solidified my perceptions toward the value of new ways. Even more, my students took advantage of the new opportunities I provided to explore their interests, interact with peers, deepen insights, and solve problems. Since making their own efforts to achieve, students gained a lot from building their own dynamic community of learners. These efforts seemed to keep student skills upbeat and also stimulated their exam performance. My classes of students still maintained good exam achievements. Through the successful attempts from both my students and me, I felt assured that the new ways were not only beneficial to the exams, but also developed my students well-rounded.

The teacher revealed that in addition to her interests in trying new ways, her initial success assured her of further success, and reinforced her overall perception toward the reforms. In addition, teacher perceived that the new ways were consistent with the structural goals of
exam achievement. This technical consistency assured the new ways of surviving in class. She went further to describe the transformation in her roles:

My roles evolved during my twenty-seven-year teaching career. During my initial years, I was being the leader, demanding my students. I cared for my own performance more than student response…. Gradually, I realized the value of student mastery and participation. I need to pay more attention to my students, adapt to my students, and assure their mastery. I shifted my attentions from myself to students…. Now, I tended to communicate and co-work with my students, like a coach or mentor or even friends.

Her words suggest that the teacher achieved a role transformation from being more like a commander or expert to a coach or mentor. Furthermore, the Chinese teacher provided an example of her current teaching in the compulsory course:

Now, I transformed to keep both-the traditional and the new ways. For example, I taught a Chinese article titled as ‘Lanting Xu’ from the textbook. I taught examined words and sentences, and helped students master them through lesson drill and practice…. However, I did not consider serving the exams as my only objective to achieve during the class session…. The exams heavily tested the basics, like words, sentences, or basic understandings and meanings, rather than any deep insights. I went beyond to include teaching non-examined contents and skills. I facilitated students to express their own views regarding the topic of life and death deeply implied in that article. My students discussed with their peers, making and defending their own arguments regarding the topic.
The example indicates that during a class session, the teacher not only served the structural goals but also implemented the new approaches to teaching. She then continued to explain her views about the balance between the exam needs and the reforms:

Throughout my twenty-seven-year teaching career, I always achieved exam success. The exam achievement gave me power and confidence to try new ways in class. Over the years, I developed a “large picture” toward the exams and new ways: teaching Chinese was not only transmitting examined basic knowledge and skills, but also went further to stress a cultivation of humanity and liberal thinking. Both of them were mutual beneficial….Through my experience, I realized that as long as students’ thinking skills developed, their mastery of the heavily tested basics accordingly improved.

Her views suggested that success in the technical goal of exam achievements secured the teacher with the opportunity to implement reform practices. In turn, focus on thinking skills, boosted students’ exam success. Furthermore, she described her strategy of raising student interest:

My class session demonstrated to students an example of how to learn. Students might or might not employ the knowledge and skills they learned in class to expand or upscale their learning outside of class. Here, raising students’ interests was the key. My experience taught me that a teacher unwisely expected spending forty minutes to deliver tasks as many as possible. However, as long as their interests were raised in class, students tended to place more efforts and time in their self-directed learning after class where the learning actually happened. Therefore, this way made up the time to fulfill all objectives. For example, I usually accomplished my teaching tasks in my class session. In addition, students often approached me, asking for the individualized recommendation of
reading materials to serve their own interests. I also encouraged them to write after reading. To follow up, students were provided with the opportunities to present their own writings in class regarding various topics, including both the examined and non-examined. Even, students continue the discussion with peers and me through the whole school day. Through these demonstrations and conversations, students developed their self-efficacy which helped boost their interests.

The key point is that her approach encouraged new self-directed learning outside of class. This helped minimize the restriction of limited class time. The Chinese teacher continued to describe her strategy of time variation:

I had been clear that it took longer time to explore students’ interests and potentials and to develop student thinking skills and problem solving skills, while student’s mastery of the examined basics could often be taught quickly. I taught the exams for more than two decades. I had expertise in helping students assure their exam achievement. Therefore, when there were months away from the exams, I focused more on trying new ways in class. However, when the exams shortly approached, I was strict with my students, demanding them to place all of their attention, efforts, and time into the examined contents. But students were still encouraged to participate in the review sessions. For example, I was not the leader in charge of the review sessions. Instead, if necessary, I provided students with my advice or summarizations. During the whole session, students were first facilitated to discuss their problems or mistakes in the exam exercises. Their student peers then helped solve those concerns. When observing some students were reluctant to participate, I strictly gave them reinforcement. At the end of the session, I
asked students to assign the contents on which they usually made mistakes for the memorization and recitation.

The interview response revealed the repeated emerging theme: the time variation was employed to balance between the exam needs and the reform implementation. Even in the review sessions, she still maintained the means of student participation. Later, she positively described her Friday-afternoon elective course of Chinese poetry:

Since there was no exam pressure in the elective course, I did not have to deliver the examined contents. I used various teaching materials to broaden my students’ horizon, inspire their interests, and cultivate their appreciation of Chinese poetry. Students spent most of the time in thinking and discussing. If necessary, I provided my advice to help students thinking critically and deeply. Even after class, many students asked me to recommend additional poetry readings. Some of them voluntarily wrote their short poems and communicated in the next Friday session. I was motivated and willing to go further trying more new things which differentiated from my compulsory course. With efforts, many students improved their vocal presence, and expressed their original thoughts.

It revealed that her success in the new type of the elective course functioned as a supportive opportunity to increase her willingness and capacity to implement the reforms.

A novice English teacher with two-year teaching experience had some success in implementing the reforms. At the time of the interview, she taught two classes in senior 2 (11th Grade), respectively, forty-six students and forty-seven students. For each class, she had six regular class sessions every week in total. She was in charge of assigned student self-study sessions at nights. I observed her class session first, and held an interview with her the next day. She started describing her success in implementing the reforms:
When I started teaching, two years ago, I wanted to accomplish the objectives of inspiring students’ interests and facilitating their participations in my class. I did not want to follow the ways of traditional education. Initially, I tried a variety of new things in my class. For example, I used English weekly newspapers as learning materials, providing students with the updated knowledge and information, raising their interests, and training their reading skills. In particular, every English Morning-Reading session, I assigned one short English article and its reading tasks to train students’ self-directed learning. When students encountered problems, I left them to try first by themselves or working with other students for solutions.

It revealed that this teacher’s interests, objectives, and initial teaching choices were consistent with the goals in the reforms, rather than in the exams. She furtherer provided a successful example of implementing the ideals of the reforms in her current teaching:

For example, this semester I shared a TED video clip, titled as “How to Be Creative”. I used this learning material to train students’ English listening and speaking skills. My deep intention was to inspire my students to be creative. I believed they had the capacity to be creative. I wanted them to dare to envision something for themselves, rather than confining themselves to only learn for the exams. After watching the clip, I facilitated student groups to discuss on this topic, and then picked up some groups to make oral presentations.

This example revealed that teacher touched on the topic of creativity, and used the new pedagogies the reforms introduced in her class session. She continued to describe her roles when delivering teaching:
I was an open-minded person and respected my students’ opinions. Even when I demanded my students to do what I asked, I explained reasons to them and asked for their opinions. When most of my students accepted it, we proceeded. I usually negotiated and discussed with them and I did not make any decisions all by myself.

This description illustrated that students and the teacher interacted like colleagues or friends. This kind of teacher role appears to be more consistent with the ideals of the reforms.

She went further to talk about her current difficulties to transform students:

In particular, when I encouraged students to argue with me, I observed that some students were reluctant. I understood that Chinese traditional culture had long disciplined students be humble to their teachers, and not to argue with people in order to maintain the harmony in social interpersonal relationships. And, when I tried to encourage students to develop their critical thinking, some showed little response and still tended to memorize and recite. I realized that the long history of traditional schooling unconsciously reinforced students’ attachment to passive learning habits. I personally could not sharply transform my students’ thinking and behaviors which were deeply embedded in the Chinese traditional culture and the exam-oriented schooling. However, I still kept trying to make it happen.

Both Chinese traditional culture and the long history of exam-oriented schooling seemed to produce the unconscious influence on students. Over the years, students maintained the strong and stable attachment to them. This tendency produced deep stable barriers to the teacher’s efforts to transform passive students. She continued to mention the strategy of time variation in balancing between exam pressures and reform implementation:
I personally did not want to only deliver the traditional style of education. In particular, I strongly disagreed with delivering the standard answers and minimizing differences in thinking. But I admitted that I had to take care of Gaokao which determined students’ educational promotion opportunities. Therefore, when there were months away from the date of exams, I spent more time to try new approaches. I believed that as long as the advanced skills, like thinking skills, improved, students’ basic knowledge would also improve. When the date of exams approached, I strictly focused on the exam preparation.

The response revealed that on one hand, the teacher’s personal interests or objectives were somewhat incongruent with the exam needs. On the other hand, the structural goals were critical. She employed the strategy of time variation to satisfy her own interests in the new ideals of the reforms but also to meet the exam needs.

My room observation corresponded to her interview responses regarding her current instructional approach. She began a forty-minute English class session with a Q&A warm-up, followed by a 15-minute brief talk of new words and sentences in the textbook. She then arranged forty-seven students into twelve groups, doing role-play conversations for twenty minutes to train English speaking and listening. She provided guidelines in Power Point slides requiring students to use assigned words and sentences in conversation. As the students practiced conversation, she walked around, facilitating the group talk and providing advice. After the conversations, she picked up five of twelve student groups to do the oral presentations. At the end, she summarized the learning. Her lesson seemed to be a reasonable effort aimed at increasing student participatory learning.

In a further example, an experienced art teacher had success in implementing the reforms. At the time of the interview, she taught six classes of junior school and seven classes of high
school. For each class, she had one regular art session of forty minutes every week. She also taught two straight sessions of the extra-curricular course in traditional Chinese painting every Friday afternoon. I had an in-class observation and an interview with her.

The documents gathered in the field revealed that the subjects of art, physical education, and music were not tested in Gaokao, but were tested in Zhongkao. In order to respond to the new curriculum reforms but also serve the exams, the school leadership, in 2014, introduced classes of interests at high school. These included three subjects of art, physical education, and music. After surveying art teachers and students, four content areas - sketch drawing, traditional Chinese painting, water color, and printmaking - were offered. Art teachers chose the teaching content area in which they were knowledgeable and competent. After observing art teachers’ introductions and demonstrations, every two regular classes, typically 100 students in total, together chose their own interested content area from four options, and registered in that for one school year. Based on their own options of the interest, a new class of 25 students formed. Compared to the typical large class size of 50 students at junior school, the new class had a small class size. She first described her traditional class:

In my traditional class, I employed the textbook which included a variety of content areas. Honestly, I was not good at some areas, like animation design, or sculpture. I lectured the background introductions on these areas, but I taught in practice sessions with the content areas I was interested in and capable of delivering. Besides, I once had to teach the content areas of paper-cutting, poster design, traditional Chinese painting, sketch drawing, and water color within one semester. With the rich teaching contents, I was not able to teach my students to deeply gain the professional skills. Instead, I provided them with the general introductions and demonstrations, and less time to practice for each content area.
In addition, the traditional class had a large class size of around fifty students. It was impossible for me to serve them individually. To compromise, I relied more on teacher-driven demonstrations to serve the common interests or concerns. In particular, during the practice sessions, I could not facilitate them individually. Sadly, I observed that many students, in their practice time, turned out to imitate the performance I delivered in the demonstration sessions, rather than developing their own art expressions. Even now, my classes at junior school, who would take Zhongkao, were like this case.

The interview response revealed that the rich, various content areas and the big class size in the traditional type of class pushed the teacher’s roles and instructional choices toward more traditional. These roles and choices were consistent with the structural goals. She continued to introduce her teaching in the new type of course:

After the start-up of the new type of courses at high school, my teaching transformed. I had no exam pressure at high school. I taught my students to cultivate their sense of beauty, develop their original thinking, and acquire the drawing skills. Now, I chose the traditional Chinese painting as my competent content areas for a school year to deliver in my new class. In this small class size, I felt easier to recognize and serve student’s individual interests, needs, concerns and potentials. I spent more time in facilitating students to gain the deep professional skills through increasing practice sessions, rather than, leading most of the demonstrations. I coached them like a mentor. I observed their individual drawing performance, provided students with the opportunities for the original art expressions, rather than simply imitating my demonstrations, and gave them my advice to improve. My students were so active and interested in this course that they
voluntarily continued their inputs after class without my demands. I felt so motivated when teaching this new course.

It revealed that the teacher had the successful transformations in objectives, teacher roles, teaching contents and pedagogies. They were consistent with new ideals in the reforms. However, due to the exam pressure of Zhongkao, the grade variation between the junior school and high school was still illustrated.

**Summary of Emerging Themes**

This dissertation began with a broad question of how teacher perceptions and behaviors are shaped by the reforms, and how perceptions and behaviors might somehow shape, or reshape, the implementation of reform. Specifically, this study asked the following:

- How do teachers’ belief and background influence their perceptions and attitudes toward the reforms?
- What barriers and/or facilitators do teachers face in responding to the reforms?
- How do teacher perceptions, beliefs, and actions evolve as they grapple with reform demands?

To respond to these raised research questions, the following section presents the summary of general emerging themes based on the data gathered in the field. After the descriptions in the first section provide a broad portrait of three types of teachers’ views and responses toward the reforms, the discussion of general emerging themes in this section demonstrates teacher perceived educational goals, teacher perceived roles, teacher perceived pedagogies, and how they have influenced teachers’ response toward the reform, illustrates
teacher perceived barriers and facilitators in their response, and explores teachers’ evolving perceptions, beliefs, and actions as they grapple with reform demands.

**Teachers’ Perceptions and Actions in Exam-Oriented Education**

**Teachers’ Views on Educational Goals**

**Teacher perceived structural goals.** The data gathered in documents, observations and interview responses all revealed that assuring exam achievement, in particular in the High School Entrance Exam (HSEE) and National College Entrance Exam (NCEE), for many decades, had been the structural goal for students, teachers, and school administrators. According to the interview response, in order to serve the standardized exams, teachers should strictly promote achievement and minimize performance deviation. In addition, the educational evaluation system heavily stressed using test scores to distribute educational opportunity, track student growth, judge teacher performance, and maintain school reputation. The structural goal along with the high-stakes exam-based evaluation structure exerted a powerful impact on teachers’ choice of content and pedagogy. The interview responses revealed that structural goals were perceived by teachers as an important stage goal or—in other words—a valid proxy for future life success.

**Teacher perceived new goals of the reforms.** Based on the data gathered in the field, the educational reforms introduced new objectives, content, and practice. These new ideals appeared aimed at meeting student individual development. The reforms placed an emphasis on cultivating creativity, developing critical thinking and self-directed learning, caring for student interests, and facilitating student-centered participation. The new goals of the reforms were regarded as the ultimate goal which took longer time to meet.
**Teacher perceived goal conflict.** According to the interview data, some teachers perceived conflicts between the goals of exam achievement and reform ideals. On one hand, these teachers perceived that new ideals appeared to cultivate student individualized development, rather than achieving standardized exam outcome. Although, they regarded “quality education” as the ultimate goal, they believed it would take longer to meet. In addition, faced with the intensive pressure from high-stakes exam-based evaluation, these teachers perceived the structural goal of exam achievement as their important intermediate goal to first serve in their daily teaching. Teachers thus had the difficulty in balancing both goals in their class.

**Teacher perceived mutual beneficial goals.** Based on the interview responses, other teachers perceived traditional structural goal and new ideals of the reforms as mutual beneficial. They mentioned that new ideals, like thinking skills, boosted their students’ exam achievement. In turn, the exam success provided them with power and opportunity to try and continue new instructional approaches. These teachers seemed relatively confident that they could balance both in their class.

**Teacher Perceived Roles**

**Teacher perceived commander role.** Through the data gathered in the field, a type of teachers functioned in the role of commander or expert. These teachers, most of the time, transmitted exam knowledge, provided standard answers, and directed students. Along with their ownership of authority or power, teachers were confident in their superior expertise in identifying the emphases of the exams and worked to compel students to follow their direction in
order to assure exam achievement. This type of teacher role seemed to be consistent with traditional structural responsibilities.

**Teacher perceived facilitator role.** According to the interview responses, another type of teacher functioned as a facilitator or mentor working with students. These teachers, most of the time, interacted with their students, like colleagues, caring for students’ interests, facilitating student participation, and providing necessary advice. They tended to step back and provide more opportunities for students to participate in class and gain experience. This kind of teacher role appeared to be more compatible with new ideals of the reforms.

**Teacher perceived role conflict.** The interview responses revealed that teachers perceived the new role of being a facilitator as sharply different from that encountered in meeting their structural responsibilities. On one hand, teachers were expected to be a facilitator cultivating student-centered development. On the other hand, teachers’ structural responsibilities still pushed them to command over their students in order to assure exam achievement. Teachers had the difficulty in balancing the new role and structural responsibility in their class.

**Teacher Perceived Pedagogies**

**Teacher perceived exam-oriented pedagogy.** The data gathered in the field demonstrated that teachers’ instructional choices had long been oriented toward the exams. Lectures were effectively used by teachers to deliver examined contents. Rounds of repeated review sessions and testing drills were utilized to strengthen students’ testing skills. Teachers pushed students to repeatedly memorize and recite examined content in order to assure standard outcome and minimize performance deviation.
Teacher perceived new instructional pedagogy. The interview responses revealed that the educational reforms introduced novel forms of instructional pedagogy that encouraged teachers to step away from center stage and facilitate more student participation. Teachers were expected to step back offering advice and provide more opportunities for students to think, discuss, collaborate, or solve problems in class. When making instructional choices, teachers would need to pay more attention to students’ needs and interests and help students cultivate their individualize development.

Teacher perceived pedagogical conflict. The interview responses illustrated teachers perceived the new instructional pedagogy as sharply different from previous teaching practices. Teachers perceived that their efforts to facilitate student participation, problem-solving, and thinking skills took more time to see fruition. In addition, the new pedagogy took longer time to deliver the same level of knowledge needed for exam success. Time was perceived as a scarce resource. Teachers perceived that new ways would require much of it and threaten the accomplishment of exam teaching tasks.

Teacher Perceived Barriers and Facilitators to Suzhi Jiaoyu

Teacher Perceived Barriers to Suzhi Jiaoyu

Teacher perceived inconsistency between structural goals and reform practices. The interview responses revealed that the goals of exam achievements and high-stakes exam-based evaluation had long been integrated into the structure of schooling. These structural features exerted powerful effects on teachers’ perceptions of responsibility and choice of content and pedagogy. On one hand, some teachers perceived the traditional role and pedagogy as proven
effective to exam achievement. On the other hand, due to the conflicts between the structural and new teacher roles and pedagogies discussed before, these teachers regarded the implementation of new goals, roles, and pedagogies the reforms introduced as inconsistent teaching practices or even threats to the traditionally structured goals. In order to consistently serve the technical goal, those teachers limited the opportunities given to the new roles and pedagogies.

**Teacher perceived restricted class structures.** According to the data gathered in the field, teachers perceived that the structures of large class size and limited class time not only provided a narrow fit for the new ideals in the reforms, but also restricted their capacity to implement those new ways. For example, some teachers mentioned that the means of facilitating and assuring student individual participation was incompatible with class sizes of almost fifty students and the limited time of forty minutes. In addition, they perceived a weak capacity to serve students individually and facilitate student individual vocal presence within these restricted conditions.

**Teacher perceived strong attachment to the structural goal.** The interview data revealed that some teachers maintained strong personal attachment to structural goals and demonstrated low interest or willingness to implement the reforms. Such teachers regarded the structural goal of exam achievement as their inner motivation and first important goal to serve. And, teacher perceived self-efficacy grew when consistently meeting the demands of the exam achievement. At the same time, their personal needs, interests, and motivations were incongruent with the reforms. The need to satisfy their inner motivation and avoid threatening their self-efficacy impeded teachers’ willingness and ability to implement the reforms. For example, some teachers mentioned that they, for many years, agreed with the values and norms of under which they worked. They felt effective and motivated by the exam success. However, the reform
implementation was perceived as prompting a rearrangement or even abandonment of their long-established teaching goals, norms, roles, and habits. They need to drag themselves out of their zone of comfort and certainty. They were reluctant to make the reforms happen.

**Teacher perceived conflicts between traditional and reform norms.** According to the data gathered in the field, both Chinese traditional culture and long-developed exam-oriented schooling norms produced an unconscious influence on students, who over the years maintained a strong and stable attachment to both. This tendency produced deep stable barriers to teachers’ efforts to transform passive students. For example, some teachers mentioned that traditional Chinese culture had long disciplined students to be humble to their teachers and to not argue with people in order to maintain harmony in social and interpersonal relationships. And traditional schooling norms disciplined students to memorize and recite learned material. Though some teachers continued their efforts to encourage students to develop and vocally express their critical thinking, students tended to participate only reluctantly. Teachers thus perceived a weak capacity to transform their passive students toward adopting the reforms.

**Teachers perceived insignificant professional development opportunity.** The interview data revealed that some teachers perceived knowledge-based professional training as ideal and sound in theory, but not practical enough to impact their lessons or enable them develop reform practice in their class. Besides, these teachers regarded professional development opportunities as actually hindering their motivation to implement the reforms. They mentioned that those professional opportunities persuaded them to adopt the ways of the reforms. They perceived calls for higher student achievement and better, more skilled teaching as implicitly implying that whatever teachers had been doing in the past was wrong. Therefore, professional development opportunities carried with the implicit criticism to teachers that they have been
doing something wrong neither boosted teachers’ motivation nor improved their teaching practice.

**Teacher Perceived Facilitators to Suzhi Jiaoyu**

**Teachers perceived consistency between structural goals and reform practice.** The interview responses suggested that some teachers perceived that new ideals boosted students’ exam achievement, and the exam success provided teachers with power and opportunity to continue new ways. Teachers’ reform efforts seemed to keep student skills upbeat and also stimulated students’ good exam achievement. Through the successful attempts, these teachers assured that new ways were consistent with the structural goal. For example, a junior school English teacher mentioned that as long as students’ thinking skills developed, their mastery of the heavily tested basics accordingly improved. For this and similarly minded teachers, this suggested that thinking skills helped boost students’ exam success.

**Teacher perceived supportive course structures.** According to the data gathered in the field, some teachers revealed their reform success in the new elective, extra-curricular, and interest-based courses. They mentioned that these new courses provided them with either a small class size or extended class time to implement the reforms. They reported finding it easier to recognize and serve students’ individual interests, needs, concerns, potentials and to facilitate student participation. Finally, these teachers reported successful reform transformations in objectives, teacher roles, teaching content, and pedagogies. For example, a Chinese teacher was motivated by her effective efforts in improving students’ vocal presence and original thinking in her elective poetry course. She was willing to go further to try more new reform approaches.
Teachers perceived supportive professional development opportunity. According to the interview data, some teachers mentioned that demonstration class provided them with an opportunity to demonstrate and improve their reform practice. Teachers within the same subject in turn presented demonstration lessons once every semester. Other teachers and professional experts were invited to observe and provide feedback. Several teachers reported finding this professional training helpful in reflecting on and improving their reform practice. Besides, the interview responses revealed that mentor-based professional training opportunity provided some teachers with rewarding and inspirational learning experiences with regard to reform practice. More importantly, this professional training opportunity armed them with motivation and improved their capacity to start their own in-class reform transformation. For example, a Chinese high school teacher revealed that she became armed with persuasive experience and new confidence after learning from her mentor’s success using new approaches. She was internally enlightened and came to realize the value of reforms.

Teachers perceived increasing willingness and capacity to implement the reforms. Based on the interview data, some teachers revealed that in addition to their initial interests in the reforms, their initial success assured further success and reinforced their willingness to continue the reform practice in their class. These teachers mentioned that initially, their values and interests seemed to be consistent with new ideals of the reforms. They hoped to serve students’ needs and interests and valued proactive thinking skills and student participation. They started to try the reforms in their class. After trying the new ways, their efforts increasingly improved and seemed to produce results. They reported that their positive behaviors solidified their perceptions toward the value of new ways and stimulated their further reform efforts.
Teachers’ Evolving Perceptions and Actions in Grappling with Reform Demands

Teachers’ Evolution as Grappling with the Reforms

According to the data gathered in the field, some teachers experienced continuing setbacks in their reform implementation, while other teachers had success. Through continuing setbacks in reform attempts, some teachers perceived the difficulty in balancing between the structural goal and the reform implementation. These teachers revealed that they initially were interested in trying the reform in their class. After trying new ways, these teachers experienced continued setbacks in implementing new ways and perceived their new ways as inconsistent with the structural goal of exam achievement. In addition, teachers’ perceived weak capacity to implement the reforms, along with the high-stakes exam pressure in turn decreased their motivation or willingness to continue their reform efforts in class.

However, the interview data revealed that other teachers perceived that their reform efforts boosted the exam achievement, and the exam success in turn provided them with power and opportunity to continue the reform practice in their class. These teachers mentioned that they initially had interest and motivation to try the reforms in their class. After trying the new ways, their reform efforts increasingly improved and even became effective. They perceived an internal transformation process. Teachers revealed that in addition to their interests in trying the new ways, their initial success assured further success, and reinforced their overall perception toward the reforms. More importantly, these teachers perceived that their reform efforts were consistent with the structural goal of exam achievement. This technical consistency assured their new ways of surviving in class.
Teachers’ Symbolic Responses

According to the data gathered in the field, some teachers appreciated the reforms “in-theory” but found them impractical in reality and responded to the reforms with symbolic acquiescence; that is, the changes they made were more on the surface. These teachers perceived that the reforms introduced uncertainties, but the structural goal of exam achievement was certain and stable. Therefore, to deal quickly with the uncertainties, teachers’ technical teaching behaviors were driven to be consistent with the certainty and were reshaped as placing limited time or efforts toward the reforms. In other words, they seemed to believe that even small surface changes would demonstrate their respect for reform and enable them to maintain professional legitimacy. For example, a physics teacher mentioned that to serve the certain technical goal, he mainly maintained his traditional ways perceived to be proven effective in his regular class. If available, he placed some limited time into allowing student participation.

Furthermore, the data gathered in the field revealed that the structures of demonstration class and new types of courses opened up a window opportunity for teachers to implement the reforms. However, these structures provided narrow opportunities, in terms of time. For example, a politics teacher mentioned that due to the reform practice’ threat to the exam achievement, he suspended the new ways in his regular class and used them only in the once-a-semester demonstration class and the Friday-afternoon elective course.

Time and Grade Variation

Variation in proximity to the date of exams. The interview responses revealed that some teachers employed time variation to balance between the exam needs and the reform implementation. When there were months away from the exams, these teachers focused more on
trying new ways in class. However, as the exams shortly approached, they grew strict with students, demanding them to place all of their attention, efforts, and time into the examined contents.

**Grade variation.** According to the interview data, some teachers employed the grade variation to balance between the high-stakes exam pressure and the reform implementation. They revealed that Junior 3 (9th grade) and senior 3 (12th grade), the grades in which students were about to take Zhongkao and Gaokao, was a vacuum in terms of the educational reforms. Upon both exams approached, teachers tended to sharply reduce the reform practice. But, in lower grades far from taking the high-stakes exams of Zhongkao and Gaokao, these teachers had more discretion to try the reforms.

In sum, the discussion in this chapter suggests that within the context of continuous tensions between examination-oriented education and the suzhi jiaoyu reforms, teachers’ perceptions and actions toward educational changes became reconfigured in the following aspects. Teachers’ choices of content and pedagogy were influenced by their perceived structural goals and technical responsibilities. With the introduction of the reforms, teachers perceived supports to facilitate their reform practice, like consistency between structural goals and reform practice, supportive course structures and professional development opportunities, and teachers’ increasing reform need and capacity. At the same time, teachers also perceived barriers to the reforms, like inconsistency between structural goals and reform practice, restricted class structures and professional development opportunities, teachers’ weakening reform need and capacity, and traditional Chinese culture and schooling norms. As grappling with the reforms, they tended to symbolically respond to the reforms and gradually recast their perceptions and actions.
Chapter Five

Discussion and Implications

This dissertation begins with a broad question of how teacher perceptions and behaviors are shaped by the reforms, and how perceptions and behaviors might somehow shape, or reshape, the implementation of reform. While Chapter Four presents a broad landscape of teachers’ views and actions toward the reforms, this chapter first focuses on answering the research questions by synthesizing and highlighting the main themes emerging from the data into three lenses: the structural lens, the human resource lens, and the symbolic lens. This chapter then attempts to illustrate implications and limitations of the present study and suggestions for further research.

Three Lenses

The Structural Lens

The data gathered in the field reveals that the structural goal along with the high-stakes exam-based evaluation structure exerted a powerful impact on demanding teachers’ consistent choices of content and pedagogy. The present study suggests that assuring exam achievement, in particular in Gaokao and Zhongkao, for many decades, have been the structural goal for students, teachers, and the school administrators. In addition, the educational evaluation system heavily stressed using test scores to screen students’ educational promotion opportunities, track their growth, judge teacher performance, and maintain school reputation. Facing the exam demands, teacher-driven lectures, memorization and recitation, and exam exercises were regularized in class. This responds to Bolman & Deal’s structural perspective. Organizations are goal-driven. Bureaucracies are created to achieve predetermined goals through the clear pathway of means-ends (Bolman & Deal, 2013).
At the same time, the suzhi jiaoyu reforms represented the construction of an entirely new set of structures, standing alongside yet also competing with the old. These new structures appear to conflict with previous goals and established procedures for organizational success. They also lend themselves to greater uncertainty in terms of teachers’ perceived roles. The present data suggest that as the suzhi jiaoyu reforms came into sight, some teachers perceived the new ideals as sharply different and inconsistent with long established structures and goals. In order to consistently meet the demands of standardized exams, teachers felt highly reluctant to deviate from prior instructional practice. In addition, teachers felt constricted to the extent large class size and limited class time prevented them from attempting new forms of practice. Therefore, they tended to only reluctantly respond to the reforms. Other teachers, however, regarded the new approaches as potentially beneficial towards helping students accomplish traditional test-taking goals. In other words, these teachers gradually perceived the goals of reform as compatible with previous academic structures. This perception was perhaps most apparent among teachers with smaller class size, no exam pressure, or extended class time. Thus, the degree to which teachers attempted to use suzhi jiaoyu reforms in their classrooms appears to have been based on a function of individual perception of value and access to necessary resources.

Yet, the present study reveals that teachers’ implementation of reform was influenced by the conflict between traditional and new teacher roles. As the structural frame’s emphasis on the necessity of goal consistency and role clarity, teacher role conflict gives rise to further concern (Bolman & Deal, 2013). On one hand, teachers were expected by the reforms to be a facilitator cultivating student-centered development. On the other hand, teachers’ structural responsibilities still pushed them to command over their students in order to assure exam achievement. Teachers
were expected to continue as “authoritative experts” in their classrooms, but also become something more like a colleague, coach, mentor, or friend. The present data reveals the difficulty they experienced in balancing these roles.

Furthermore, the data gathered in this study reveals that teachers perceived the new instructional pedagogy was sharply different from previous teaching practices. Teachers perceived that the new pedagogy took longer amounts of time than the traditional pedagogy to accomplish the same structural tasks and often took time away from exam focused instruction and student exam achievement. Teachers thus also faced difficulty in balancing conflicting forms of pedagogy. Bolman & Deal suggests that organizations are built around systematic, rational, sequential processes leading to effective selection of choices. However, the likelihood of irrational behaviors might appear with the degree of the goal inconsistency (Bolman & Deal, 2013). The present study illustrates that to the extent a “rational system” requires a well-understood technical core of activity, one finds cleavages between the intent of suzhi jiaoyu and the previous “well-oiled” Chinese system of education.

At the same time, the thought arises that tightly rationalized systems may be impervious to rationalized efforts to promote change. In their study of organizational learning, for instance, Weick and Westley (1996) argue that such learning follows from the “juxtaposition of order and disorder,” a condition that seems operant within the present state of suzhi jiaoyu reform. A stretch further, one might view the suzhi jiaoyu initiative as a form of what Bower and Christensen call “disruptive innovation.” The analogy is far from perfect since these researchers theorized such disruptions would originate from grassroots technologies originating at the fringe of a market. In contrast, suzhi jiaoyu was launched downward from the top of a major organization –the Chinese Ministry of Education. Nevertheless, suzhi jiaoyu does seem aimed at
changing educational values and products through the introduction of well-controlled disruption. Such questions are beyond the scope of this study, but would make interesting material for future research.

**The Human Resource Lens**

In contrast to the structural frame emphasizing impersonal structure, process, and organizational rationality, the human resource frame underscores the fit between the organization and the individual needs of its employees (Bolman & Deal, 2013). The present study reveals that some teachers maintained strong personal attachment to the structural goal but demonstrated low interest or willingness to implement the reforms. These teachers regarded the structural goal of exam achievement as their inner motivation and first important goal to serve and their sense of self-efficacy grew when consistently able to meet the demands of exam achievement. In order to satisfy teachers’ inner motivation and avoid threatening their self-efficacy, their willingness to implement the reforms was greatly inhibited. At the same time, some of these teachers expressed measured sympathy with what the reforms sought to accomplish. Not enough, however, to change their professional beliefs.

This research also reveals, however, that there were other teachers interested in balancing traditional and reform goals. These teachers responded in ways that revealed personal agreement with the values of the reforms and a willingness to attempt their implementation. They realized that their positive behaviors solidified their perceptions toward the value of new ways and stimulated their further reform efforts. One might suggest that these teachers held or developed an emotional linkage to the vision of schooling offered by the reforms.
Furthermore, some teachers, according to the data gathered in the field, perceived their capacity fit for reform demands, as Bolman and Deal’s human resource frame highlights the fit between worker capacity and organizational expectations placed upon them (2013). The present study suggests that teachers were expected, to cultivate creativity, develop critical thinking and self-directed learning, care for student interests, and facilitate student-centered participation. Through consistent reform efforts in their class, some teachers perceived that their capacity to implement the reforms increasingly improved and became effective. They realized that their positive behaviors reinforced their attachment to the value of new ways, and stimulated their further reform efforts.

However, the present study reveals that other teachers perceived a gap between their capacity and the job requirement. Although they perceived lack of capacity to do the reform, this tension was not completely clear within the context of school reform. Some teachers revealed that organizational structures and traditional culture or schooling norms did not allow their potential to be substantively expressed. For example, some teachers perceived a weak capacity to implement the reform in a big class size and limited class time and to transform passive students to adopt the reforms. The problem here was not only capacity to change instructional practices, but also the opportunity – that is, the resources – necessary to change them. In addition, the data revealed that new elective, extra-curricular, and interest-based courses provided teachers with either a small class size or extended class time and functioned as a supportive opportunity to implement the reforms. However, such supportive opportunity was an exception over the broad landscape of school activity.

In addition, the present study reveals that some teachers mentioned that demonstration class training and mentor’s professional training boosted their motivation and capacity to
improve their reform practice. This responds to Bolman & Deal’s HR frame suggesting that professional development opportunity functions to minimize the gap between their capacity and organizational demands (Bolman & Deal, 2013). In this study, it appears that teachers did receive reasonable levels of training. However, other teachers perceived professional training as ideal and sound in theory, rather than practical enough to fit in their new lessons or develop reform practice in their class. Besides, these teachers regarded professional development opportunities as hindering their motivation to implement the reforms. They mentioned that those professional opportunities persuaded them to adopt the ways of the reforms. They perceived calls for higher student achievement and better, more skilled teaching as implicitly implying that whatever teachers had been doing was wrong. Therefore, perceptions that professional development opportunities conveyed implicit criticism to teachers that they have been doing something wrong may have hindered their motivation to change their teaching practices.

The Symbolic Lens

The present study reveals that some teachers’ “implementation” of reform consisted of behaviors, images, or discourse that suggested support for reform and willingness to change, but which did not actually represent substantive technical change. In this sense, it corresponds to Bolman and Deal’s symbolic frame suggesting when facing uncertainty, ambiguity, or conflict, individuals and organizations tend to create symbolic messages or behaviors to resolve the confusion, rather than actual technical resolutions (Bolman & Deal, 2013). In this study, some teachers appreciated the reforms “in-theory” but found them impractical in reality and responded to the reforms with symbolic practice. These teachers perceived that the reforms introduced uncertainties, but the structural goal of exam achievement was certain and stable. Therefore, to
deal quickly with the uncertainties, teachers’ technical teaching behaviors were driven to be consistent with the certainty and were reshaped as placing limited time or efforts toward the reforms for the legitimacy. Furthermore, the data gathered in the field revealed that the structures of once-a-semester demonstration class and new types of courses opened up a window opportunity for teachers to implement the reforms. However, these structures provided limited opportunities for teachers, in terms of time frequency.

The data gathered in the field reveals that both Chinese traditional culture and long-developed exam-oriented schooling norms produced an unconscious influence on teachers and students. Over the years, teachers and students maintained a strong and stable attachment to both. This tendency produced deep stable barriers to teachers’ efforts to transform themselves and passive students. As the symbolic frame suggests, foundational assumptions, culture, or long-developed norms are at the unconscious level and difficult to be transformative (Bolman & Deal, 2008). In this study, some teachers revealed that they were expected to try the new ways in their class, but their traditional values, norms, and habits unconsciously pushed them to stick with their traditional ways. These teachers felt so hard to move forward. Besides, teachers mentioned that traditional Chinese culture had long disciplined their students to be humble to teachers, and not to argue with people in order to maintain the harmony of social interpersonal relationships. And traditional schooling norms disciplined their students to memorize and recite learning materials. Although these teachers continued their efforts to encourage students to develop and vocally express their critical thinking, students still tended to be reluctant to participate. Therefore, teachers felt so hard to transform their passive students toward adopting the reforms.

The present study reveals that although reform has introduced uncertainty or confusion, and though culture was hard to transform, teachers’ perceptions and actions tended to evolve
over time from symbolic to functional expressions. As suggested by Bolman and Deal, symbolic expressions may evolve to eventual substantive actions as perceptions and meanings are reconfigured (Bolman & Deal, 2013). According to the data gathered in the field, some teachers revealed that their long exposure to the language of reform led them to recast their perceptions of their instruction. They initially stuck with exam-oriented teaching. Gradually, they started to agree with the value of the reforms and were interested in trying them in their classes. After trying new ways, these teachers experienced continued setbacks in implementing new ways. They perceived new ways as inconsistent with the structural goal of exam achievement and suspended their reform practice.

However, according to the interview data, other teachers recast their perceptions that their reform efforts boosted the exam achievement, and the exam success in turn provided them with power and opportunity to continue the reform practice in their class. These teachers mentioned that they initially had interest and motivation to try the reforms in their class. After trying the new ways, their reform efforts increasingly improved and even became effective. More importantly, these teachers perceived that their reform efforts were consistent with the structural goal of exam achievement. This technical consistency assured their new ways of surviving in class. They perceived an internal transformation process. In addition to their interests in trying the new ways, their initial success assured further success, and reinforced their overall perception toward the reforms.

Although somewhat outside the bounds of this study, Bolman and Deal’s symbolic frame may also operate at the organizational level. It is possible, for instance, that the real value of suzhi jiaoyu lies not so much in whether it rapidly becomes a part of Chinese education’s technical core, but more in terms of the vision it offers for future generations of Chinese teachers,
schools, and students. Such questions are beyond the scope of this study, but would make interesting material for future research.

The discussion of structural, human resources, and symbolic perspectives, altogether, indicates that teachers’ implementation of the reforms were influenced by the structural goals, means, and responsibilities, teacher perceived need and capacity, and teachers’ symbolic behaviors and evolving perceptions and actions. In sum, the empirical examination of the present study reveals that teachers’ reform implementation was reconfigured by their evolving perceptions and actions toward the reforms. As teachers developed stronger perceptions regarding reform practices’ merits, consistency, and technical properties and gained increasing self-efficacy in implementing new ways, teachers’ reform behaviors increased. However, when the inconsistency between the structural goal and teachers’ reform practice appeared, and/or the gap between teachers’ personal need and capacity and the reform demand increased, teachers’ reform practice was negatively affected in classroom.

**Areas for Implications**

The migration of school reform language, policy, and practice throughout the global environment is a phenomenon worthy of study and in need of further understanding. Though rational economic considerations often serve as explanations for various school reform movements, few studies address the difficulties – and often stark failures – of such movements to significantly penetrate or endure within educational systems. The juxtaposition of what might reasonably be called “Western-style school reform” upon the longstanding test-driven system of Chinese education presents this problem in crystalline terms. This empirical study exists to promote broader understanding of how this policy species survived within, failed within, or
otherwise altered the quality of teaching and learning in teachers’ classrooms. Tapping into teachers’ views of suzhi jiaoyu, my study represents a small, but important, first step toward understanding the purposes and impact of Western-style school reform efforts in non-Western settings. Moreover, I hope that this study provided useful information for scholars, practitioners, and officials in the arena of East-Asian education.

**Implications for Policy**

As suggested in this study, the suzhi jiaoyu reforms seem to be a conflict species within the Chinese secondary school habitat. When venturing into new habitats, like the studied secondary school in Sichuan, the educational reforms have the likelihood of encountering some or all of the various structural and institutional difficulties found in this study. Since the introduction of the suzhi jiaoyu reforms, a variety of resources and professional development opportunities have been provided to facilitate the reform implementation (Luo 2012). In spite of these efforts, literature suggests that teachers’ reform implementation still seems to be no more than the substantive transformation of the reform ideals into classroom behaviors (Li, 2008; Luo, 2012; Ma & Tang, 2002; Zhong, 2005). This does not mean Chinese secondary schools are completely incompatible with the reforms. Rather, this study suggest to policy makers that without stable structural opportunities and transformative human resource supports at the state and local level, the species is unlikely to thrive in teachers’ perceptions and behaviors.

Policy makers need to recognize that the structural goal of exam achievement, the high-stakes exam-based evaluation system, and the conventional way of classroom practice are, as suggested in the present study, all substantively in conflict with the principles of the suzhi jiaoyu reforms. In particular, teachers perceived the intensive barrier of high-stakes exam control to the
reform implementation. Besides, policy makers need be aware that teachers’ resistance or passivity regarding the reform implementation should not be interpreted as a lack of profession training opportunity. This study suggests that the reality is the reduced effectiveness of professional development opportunity and weakened availability of structural opportunity.

In response to current issues of teachers’ reform implementation, policy maker should pay more attention to the structural constraints of the high-stake exam-based evaluation system. Solving the technical constraints may be realized by changing the Gaokao and Zhongkao systems to render them more consistent with the reform principles or including alternative evaluation variables to track student achievement. Another approach would be to restructure the schooling, like enriching the substance of new courses, reducing class size, extending the time of class sessions, or revising evaluation variables in the teacher evaluation policy. Besides, policy makers need to direct more policy attention toward increasing the effectiveness of professional training opportunity to boost teachers’ motivation and capacity to implement the reforms. It may be realized through enriching the time frequency of the professional demonstration as a starting point to boost teachers’ self-efficacy in reform practice, or substantively providing the long-term, in-class professional training from the mentor who had reform success to stimulate their inner transformation and also build up capacity.

Implications for Theory and Research

The main contributions of this research lie in filling the gap in the existing literature on empirically studying how teachers’ perceptions and actions in exam-oriented education affect the suzhi jiaoyu reform implementation and in developing a validated comprehensive conceptual framework to guide future studies on the reform implementation. As discussed in Chapter II, thus
far, most of the research on Chinese suzhi jiaoyu reforms has been limited to brief conceptual descriptions of the significant tensions it appears to create within the system. With little empirical evidence, one is left with the speculation as to how teachers will respond. Through the literature review, there was found a lack of empirical studies focusing on teachers’ implementation of the suzhi jiaoyu reforms with a validated comprehensive conceptual framework.

This study contributes to gathering empirical data from teachers on the front lines of the suzhi jiaoyu curricular changes. The analyses help produce a theoretically-validated conceptual framework with the structural, human resource and symbolic lenses. The findings in this study were presented: teachers’ reform implementation was reconfigured by their evolving perceptions and actions toward the reform. As teachers developed stronger perceptions regarding reform practices’ merits and technical properties and gained increasing self-efficacy in their own capacity to implement new ways, teachers’ reform implementation behaviors increased. However, when the conflicts between the structural goals and teachers’ reform practice appeared, and/or the gap between teachers’ personal needs and capacities and the reform requirement increased, teachers’ reform practice was negatively affected in classrooms. These findings help bridge the literature gap by shedding light on the meaning of suzhi jiaoyu reform as perceived by teachers and provide a starting point for new research.

**Limitations of the Study**

The case study has been regarded as a distinctive form of empirical inquiry to address the research problem and questions and intends to discover the meaning and insight as opposed to generalizability. However, the issues of generalizability and transferability are criticized as its
limitations because the qualitative case study explores the specific case with a purposeful and small sample and its findings are just applied to the studied case. Therefore, the qualitative case study lacked of representativeness and transferability (Merriam, 2009). This qualitative case study was conducted within one local school in Sichuan, China. This scope limits the inferences that can be made from the results of the analyses. The researcher employed the purposeful sampling to select 29 teachers which is a small sample size. The findings of this study are applicable to secondary school teachers in the Grace school. The generalizability and transferability of results remain limited.

The Grace school was chosen as the research site due to its typical school profile on academic achievement, high-stakes exam-oriented schooling, population density, and working environment features. However, one should be cautious in applying findings to other areas simply based on superficially similar characteristics. For example, the degree of emphasis placed on the reform implementation might vary greatly from school to school. The Grace school was designated as a pilot school for the reform implementation. The new pro-reform course structures can stimulate to transform conventional teaching practices in this school. It does not mean that such incentives might exist in other schools with more strict emphasis on the exam achievement, like Gaokao or Zhongkao, and/or in less economically developed areas. It is possible that such structural supports go beyond the fiscal capacity of schools in poorer areas.

**Suggestions for Future Study**

The inquiry process of the present study suggests future research regarding the suzhi jiaoyu reform implementation may broaden the scale of data collection to be a larger scope. This study used individual teachers in one school as the unit of analysis. Future research may explore
the viability of multiple cases on studying how teachers’ perceptions and actions in exam-oriented education influence on their reform implementation. For example, in terms of exam achievement, top-tiered schools may be compared to middle-tired or lower-tiered schools. Or, in terms of geographic and economic factors, urban schools may be compared with rural schools. It would be enlightening to see how the high-stakes exams influence teachers to implement the reforms at both the inter-school and the intra-school levels. Furthermore, it is recommended for future research to employ mixed-methods or quantitative approaches instead of relying only on qualitative research methods which limit the research findings of the correlation between different variables.
Table 1: Teachers’ Background

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References


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Korean Journal of Educational Administration, 30, 2, 253-264.


Vita

Jinyan Bai

**Education**

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**Professional Experiences**

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<td>Teaching &amp; Research Assistant</td>
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**Publications**


**Conference Presentations**

Paper Presentations, 2016, 60th Comparative and International Education Society Annual Conference

(1) Title: “Chinese school reform: Teacher perceptions of Suzhi Jiaoyu”
(2) Title: “Critical Thinking and Convivial Learning in Central China”


Paper Presentation, 2015, 59th Comparative and International Education Society Annual Conference

Title: “21st Century Instructional Change and Chinese Educational Reform”

**Certification**

Certification in Teaching English, issued by the Ministry of Education of China.