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EXPLORING CHINESE INTERNATIONAL STUDENTS' UNDERSTANDING OF
QUALITY EDUCATION IN CHINA AND A CONSTRUCTIVIST APPROACH IN
CANADA

by

Haixin Liu

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Faculty of Education
in Partial Fulfillment of the Requirements for
the Degree of Master of Education at the
University of Windsor

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ABSTRACT

This study explores 15 Chinese international students' perceptions and concerns regarding Chinese traditional education, Canadian education, and the Quality Education reform in China conducted by means of an ethnographic research method. Data was collected through one-on-one semi-structured interviews. Students' learning experiences in both China and Canada and knowledge of the Quality Education reform program in China help us to understand this large-scale and ongoing educational reform and indicate some issues with and lend some suggestions to the implementation of the reform from a unique perspective.

These findings reveal that the difference between Chinese education and Canadian education as experienced by the Chinese international students is mainly due to the contrast between the traditional or transmission model and the constructivist model. The constructivist approach in Canada has some links to the Quality Education reform in China and can serve as a guiding ideology to orient the reform and solve some problems with its implementation as suggested by the Chinese international students.

It is suggested that the Chinese government should refer to the constructivist philosophy to conduct fundamental changes on the current educational evaluation system and exam system. The student-centeredness of constructivist philosophy should be introduced to guide the shifting of the traditional educational philosophy.

This study helps Chinese international students to become more aware of different teaching styles in China and Canada, and provides a possible way to promote the Quality Education reform. As well, it informs Canadian professors about traditional thoughts held by Chinese international students and the current significant educational reform in China.

DEDICATION

I dedicate this research to all people striving for the development of Chinese education.

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I would like to acknowledge my thesis advisor first, Dr. Andrew Allen, for his great guidance and support. It is his critiques and suggestions that helped me to clarify my thoughts and arrange them better. His comments and feedback on each draft helped me to learn more and push forward. I would also like to thank the members of my thesis committee, Dr. Norman Diffey and Dr. Roy Amore, for their interest in my work and editorial assistance and critical opinions.

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CHAPTER I

INTRODUCTION

General Statement of the Problem

When I first came to Canada to study as an international student, I discovered that the Canadian teaching and learning I observed was quite different from what I had experienced in China. In discussions about the differences between Chinese education and Canadian education, my professors pointed out the difference between the traditional and the constructivist approaches to teaching. I was quite intrigued by these differences and I also found that some professors identified themselves as constructivists and were facilitating constructivist teaching fully or partly. At the same time, through my studies in educational theories on constructivism, I learned that the greatest difference between these two approaches is that constructivism is an approach that allows students to construct their own knowledge, while the traditional model of teaching views students as empty vessels to be filled. I also learned that education in China is shifting from the traditional model to a new approach being described as “Quality Education.” I discovered that the constructivist approach in Canada might have some links to this new and ongoing Quality Education reform in China. Perhaps, constructivism can inform and can offer a lot to China’s Quality Education reform as well. I intend to explore these links in this paper.

In 1999, the Central Committee of the Communist Party of China (CCCPC) and the State Council stated that the traditional educational system in China has not been able to meet the needs of enhancing civic qualities in its students. They stated that China’s educational philosophy, educational system, curriculum, and teaching methods are

relatively lagging behind other countries, which has affected the all-round development of youths (CCCPC & the State Council, 1999). Realizing these problems, the Chinese government promoted introducing a quality-oriented education in the early 1990s to change the situation. In June 1999, the Chinese government officially initiated this educational reform policy, shifting from traditional education to “Quality Education” in all aspects of education. The CCCPC and the State Council (1999) introduced Quality Education to develop the all-round qualities of students, aiming at enhancing civic quality and emphasizing the cultivation of creative and practical abilities in students.

In recent years, the educational reform has gained some success and Quality Education has been accepted by more and more teachers, parents, and people from all walks of the society (Hu & Wang, 2001). However, there are many problems with the implementation of Quality Education in practice, such as misinterpretations of meaning and confusions of teaching approaches (Hu & Wang, 2001; Jiang, 2001). Fullan (2001) argues that the “lack of clarity—diffuse goals and unspecified means of implementation—represents a major problem at the implementation stage; teachers and others find that the change is simply not very clear as to what it means in practice” (p. 77). Therefore, Quality Education might fall into a real predicament in practice if teachers are unclear about its goals and the corresponding teaching approaches.

Facing these challenges, a number of teachers and educators have been trying to identify ways to implement Quality Education in practice, but they were unable to find a feasible model which can be popularized in the whole country (Hu & Wang, 2001). Other Chinese educators have conducted research linking constructivist teaching to Quality Education and even facilitated constructivist teaching in their own classrooms (Liu, 2002).

These educators advocate that the constructivist model could guide and inform the application of Quality Education in China (Liu, 2002). However, although the constructivist philosophy has influenced the educational field in China, there is not much research seriously linking Quality Education with the constructivist theories and there are few reports on the facilitation of constructivist teaching. From a general review of the literature on Quality Education, there are still problems currently existing in the implementation of the Quality Education reform. In this study, I want to explore ways to better understand Quality Education and explore some approaches that might support the implementation of Quality Education in China.

From the initial literature review, it can be concluded that China's Quality Education is a large-scale reform, shifting from traditional education, i.e., exam-oriented education to quality-oriented education. Quality Education sought to improve upon the traditional educational system to develop human qualities in students to become better citizens. However, since the reform is new and in its inception, it has encountered many problems during its implementation process. The literature on the educational change shows that it is common and inevitable for these problems to occur. In this paper, I argue that the educational philosophy of constructivism has some links to the guiding ideology of Quality Education. I believe that constructivist teaching and learning theories can inform the Quality Education reform in China.

In addition, since Chinese international students in a Canadian university may have encountered the two different educational philosophies, i.e., the traditional philosophy in China and probably the constructivist philosophy in Canada, they bring insights into both systems. Therefore, the Chinese international students' perceptions and

concerns about the two kinds of different education, Quality Education, and constructivist teaching and learning, will add a fresh perspective to the implementation of Quality Education in China.

Purpose of the Study

The purpose of this study is to explore the perceptions and the concerns of a group of Chinese international students at a Canadian university about the different educational philosophies between China and Canada. Through their learning and/or teaching experiences in China and learning experiences in Canada, I will examine students' perceptions of the links that exist between Quality Education and constructivism. I also hope to discover some possibilities for the implementation of Quality Education and ways constructivism can inform this process or what insights it might offer.

Significance of the Study

This study is significant for the following reasons. First, participants could develop a better understanding of themselves as international students in Canada and be more aware of different teaching styles between China and Canada, which might contribute to their future studies in Canada or future teaching in China. Second, the study is closely related to the ongoing Quality Education reform in China. With learning experiences both in China and Canada, participants' concerns and views about Quality Education could lend a fresh perspective to it and help people to get a deeper and broader understanding about it. Third, the results will be reported back to China. The findings and implications might clarify some misunderstandings of Quality Education, help change people's traditional philosophy about education and suggest a possible way of

implementing Quality Education in practice. Finally, from this study, Canadian professors could be more aware of Chinese students' educational background and philosophy. They could also learn more about the ongoing significant educational reform in China and get to know the orientation of Chinese education.

Research Questions

To address the issues, I would like to explore the following questions:

How do the Chinese international students at a Canadian university perceive the difference of Chinese education and Canadian education?

How do these students perceive the Quality Education reform and its implementation in China?

What have they experienced with the constructivist approach in Canada or China?

In what ways can the educational philosophy in Canada, i.e., constructivism inform Quality Education in China?

Definition of Terms

CCCPC refers to the Central Committee of the Communist Party of China.

Constructivism refers to a philosophical perspective interested in the ways in which human beings individually and collectively interpret or construct the social and psychological world in specific linguistic, social, and historical contexts (Schwandt, 1997).

Constructivist teaching refers to a teaching type based on the notion that humans are constructors of their own knowledge, rather than reproducers of someone else's knowledge (Zahorik, 1995).

Quality Education refers to the educational reform in China launched in 1999, which aims at enhancing civic quality, emphasizes the cultivation of creative and practical abilities in students, and intends to cultivate ethical, intellectual, physical and aesthetic, etc. all-round qualities of students (CCCPC & the State Council, 1999).

UEE refers to the University/College Entrance Examination in China.

In summary, the Chinese government has advocated Quality Education as a necessary reform to solve the problems with the traditional educational system and it has received some success. But at the same time, many problems have emerged during the implementation process of this large educational reform due to unclearness and confusion about its goals and approaches. Some Chinese educational researchers suggested understanding and applying Quality Education through the constructivist theory. I agree and I do believe that there is a link between constructivism and Quality Education. However, there is little research conducted on how Chinese international students perceive Quality Education and constructivism. One way of exploring these issues is through the examination of the cross-cultural experiences of students who have been educated in both systems. Since many Chinese international students in Canada, like me, have experienced traditional education in China and probably the constructivist teaching style in Canada, as well as their knowledge of Quality Education, they will probably provide some insightful and valuable perspectives on the links between Quality Education and the constructivist approach. I argue that this perspective will add to the ongoing discussion in China's educational reform.

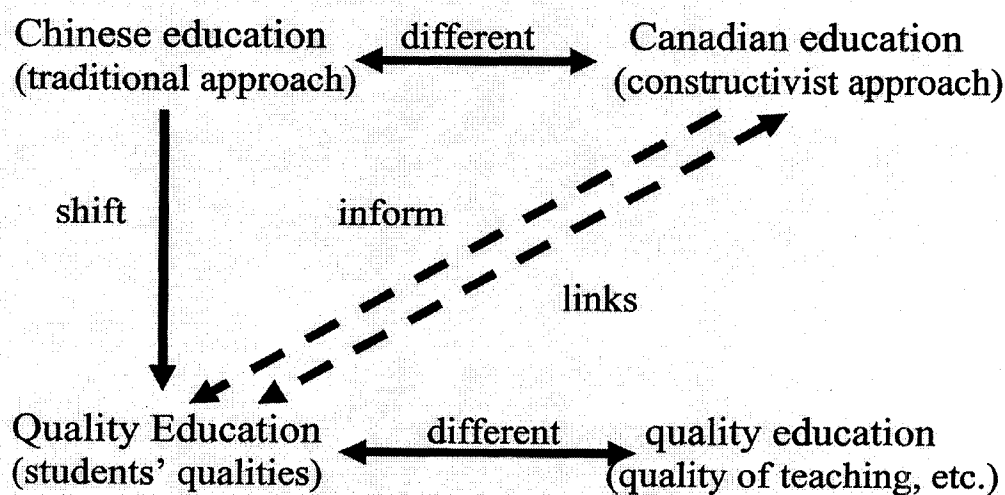
CHAPTER II

REVIEW OF THE LITERATURE

In this section, I have identified some key terms used in the literature, such as Quality Education in China, educational change or reform, constructivism, and constructivist teaching and learning. I have used the key terms identified to locate the relevant academic literature. The following literature review is divided into four sections. First, I introduce the origin and implementation of the Quality Education reform. Second, some significant theories regarding educational change or reform are examined. Third, I present some theories on constructivism and constructivist teaching and learning. Finally, I explore the links between the Quality Education reform and the constructivist approach.

During my studies in Canada, I found that the term “Quality Education” seemed to confuse my Canadian professors. “Quality Education,” according to the official definition in China (CCCPC & the State Council, 1999), refers to education aimed at developing comprehensive qualities of students, while my Canadian professors regard “quality education” as being related to the quality of the implementation of education, i.e., how to offer quality products and services in education. In the Canadian sense, it concerns the quality of education itself, including many factors within the educational sphere, such as faculty quality, teacher professionalism, facilities, management of school, student performance and so on (Wright, 1996). However, in China, Quality Education was put forward as a new educational concept for educational reform, concerning the quality of students’ overall development. The difference in understanding Quality Education between China and Canada, and Canadian educators’ limited knowledge about China’s current large educational reform intrigued me enough to explore Chinese

international students' perceptions of Quality Education. In general, the following diagram illustrates the relationships among Chinese traditional education, the Quality Education reform in China, Canadian education, and quality education in a Canadian sense.



Quality Education in China

Chinese deep-rooted traditional culture has contributed to China's traditional educational philosophy, which emphasized exams, recitation, and repetitive practice and has dominated public schools and universities for a very long time (Zhang, 2000b). Under such an educational system, teachers tend to teach in a rather rigid way, with goals centered on students' high scores on tests, while students are moulded to one standard according to a fixed form. As a result, students lacked creativity and flexibility and many gifted students have been and are being stifled in this system of high standardization (Yuan, 2001). Minichiello (2001) also discovered similar conclusions from a group of Chinese students in a Canadian secondary school. He found that the Chinese students

described Chinese education as stricter and memory-based, while they viewed Canadian teaching as comprehensive, emphasizing skills-developing and teaching students to think.

In the late 1980s, the Chinese government realized the problems with the traditional exam-oriented education. There were more and more discussions and research on quality-oriented education in the educational field (Jiang, 2001). In 1993, based on numerous educators' research and experiences, the Chinese government indicated clearly that primary and junior middle schools should turn from exam-oriented education to an approach that enhances civic comprehensive qualities (CCCPC & the State Council, 1993). In 1994, the term "Quality Education" was first officially used in the documents of the Chinese government (CCCPC, 1994). Eventually in 1999, the Chinese government called for expanding the educational reform and this propelled Quality Education in all aspects of the educational system (CCCPC & the State Council, 1999).

The Chinese government defined Quality Education as an integration of ethical education, intellectual education, physical education, and aesthetic education (CCCPC & the State Council, 1999). The central component, intellectual education, is based on a shift in educational philosophy. Under the new philosophy, the task of intellectual education is to make students understand both the origin and the development of knowledge and to cultivate students' scientific spirit and creative thinking habits. An equally important consideration is to pay attention to the following abilities of students: information collection and processing, new knowledge gains, problem solving and resolution, language expression, cooperation, and social communication and activities (CCCPC & the State Council, 1999).

Regarding the notion of Quality Education, Wang (2000) identified individual development, comprehensive development of individuals, and development of initiative and creativity as the three essential factors of Quality Education. With a comprehensive description of Quality Education, Sun (2001) indicated that the essence of Quality Education was to enhance civic qualities, which separated itself from any other kind of education not aimed at enhancing civic qualities, such as exam-oriented education.

Similarly, Xiang's (2002) description of the difference between the traditional exam-oriented education and Quality Education can help us to get a better understanding of Quality Education. She elaborated the differences in five aspects, curriculum, teacher qualities, teaching approach, educational purpose, and the evaluation system. First, regarding curriculum, overly complex textbooks and isolated subjects are the characteristics of traditional education, while Quality Education requires the curriculum to be more comprehensive with more links to practice and the society.

Second, Quality Education relies more on teacher qualities. It requires teachers to be conscious of their own independence and team work and it also requires teachers to pay more attention to students' opinions. Teachers themselves should have these comprehensive abilities as well. Since the current teachers have been immersed in the rigid exam-oriented education, they may not have comprehensive or flexible perspectives or understandings. They largely rely on the syllabus for teaching and rarely exercise independent thought. They also hold the traditional philosophy and have formed habits of strict adherence to the curriculum. Without the qualities or the new educational philosophy required by Quality Education themselves, it is hard for teachers to develop students in such qualities.

Third, the teaching approaches are different between traditional education and Quality Education. Under the traditional educational system, the teaching approaches are largely a kind of transmission of learning. In contrast, Quality Education requires that the heuristic and exploratory teaching approaches should be facilitated to explore students' interest in study and develop their abilities of independent thinking, life-long learning, information processing and creativity. Such qualities cultivated by the heuristic and exploratory teaching approaches can benefit students' whole lives while the transmission teaching approach is unable to get students prepared for the modern society with information explosion and daily-updated knowledge (Xiang, 2002).

Fourth, the educational purpose of traditional education is exams. Unfortunately, students might feel too pressured because of the high stakes testing. Their knowledge becomes fragmented as it is learned in isolation to how it applies in real life. In addition, since the focus is on students' marks on exams and tests, many teachers and schools only pay attention to those high achieving students. In contrast, Quality Education values each student's individuality and takes the complete exploration of one's potentials as its value orientation. The purpose of Quality Education is to develop students' initiative, interest in study, and independent learning and thinking abilities.

Finally, China has traditionally used exams as the only evaluation to measure students. These exams focused on a test of mechanical recitation and were carried out in the form of a final high stakes exam. However, under Quality Education, students are evaluated on their overall development of physical and mental qualities. Education is focused on students' individual development, aimed to develop their life-long qualities to make them fit into the society more effectively. The new exams are a process of

understanding and application of knowledge; the evaluation of students is a comprehensive one instead of simply an intelligence test. Thus, it would be necessary to make some changes on the exam system and evaluation measurement such as reducing the importance of final exams, using more comprehensive forms to assess students, and emphasizing more on understanding and application of knowledge in exams.

The current development of the Quality Education reform has been slow. Some obvious changes have been made to the educational system, such as balance and integration of curriculum design (Ministry of Education [MOE] China, 2001), college admission expansion and replacement of the strict percentage grading system in some areas (Hu & Wang, 2001). However, Quality Education has encountered many problems during its implementation process. First, there is ample research demonstrating that various misunderstandings of Quality Education have emerged (Deng, 2001; Hu, 2001; Hu & Wang, 2001; Huang, 2001). Since Quality Education has been discussed widely and popularly for more than ten years in China, many people understood it from their own perspectives and their own experiences. For example, Huang (2001) indicated that one of the misunderstandings was to simply regard more extracurricular activities and “Interests Classes” (special classes to train students’ skills, such as music and the arts) as Quality Education. He also criticized the idea that many schools claimed their success in enhancing students’ comprehensive qualities and implementing Quality Education by requiring students to learn at least one skill in so-called “Interests Classes” (Huang, 2001). Another major misunderstanding occurred in trying to implement Quality Education in a way completely denying and abandoning the traditional educational system. Deng (2001) argued that the purpose of Quality Education was to change the approach and improve

those problems with the exam-oriented education instead of replacing it totally. He indicated it was a misunderstanding that some educators believed that Quality Education would eliminate exams altogether. However, Quality Education would change the orientation in thinking where educators focus far too much on exams. For example, educators would take into consideration a number of other factors, including student observation, as a form of assessment and evaluation (Deng, 2001).

Second, since the history of the implementation of Quality Education is short, there is a lack of particular orientation and specific approaches to teaching. Hu and Wang (2001) insightfully indicated that it was inevitable that the Quality Education reform went blindly without direction because research on educational philosophies was lagging behind the educational practice. They raised some particular questions to be addressed at the school level, such as which goals of Quality Education can be or cannot be achieved by schools? To what degree can various schools at various levels attain these qualities? How does every kind of quality originate and develop? Without clear and specific guides, teachers were confused about how to achieve the goals of Quality Education in practice (Hu & Wang, 2001). Despite the official government definition, most teachers were trying to implement Quality Education in a traditional transmission approach (Jiang, 2001). Since there is lack of clarity about how to achieve the goals of Quality Education in practice, I suggest introducing the constructivist philosophy to guide educators' practice.

Third, there is a tendency to pursue the Quality Education reform blindly. Deng (2001) criticized some educational administrators for wanting to demonstrate achievements in Quality Education in the short term. He argued that they usually did not

have clear goals or detailed plans of action which resulted in poor student outcomes. Jiang (2001) indicated that schools or teachers used the term Quality Education even though they still facilitated exam-oriented teaching approaches. Similarly, according to Huang's (2001) experiences in the United States, he indicated that some people equated Quality Education in China with "quality education" in the United States and many other countries even though they were actually different concepts. I agreed with Huang's view as I mentioned earlier that according to my experience in Canada, "quality education" in educational theories was not the same as in China. Huang (2001) warned us that these educators simply established a format for Quality Education and popularized it, in effect turning Quality Education into a business proposition. For example, some educators introduced "Quality Education in the United States" or "Quality Education in Australia" to the Quality Education reform in China simply by reproducing American education or Australian education (Huang, 2001).

Fourth, another hotly debated issue is that there is not enough change made on the exam system or the evaluation system. For example, the marks-based University Entrance Examination (UEE) is still the only route to universities or colleges (Hu & Wang, 2001). Hu (2001) stated that due to the lack of a set of specific evaluation systems, schools were evaluated by the proportion of students moving on to a higher division, e.g., from high schools to universities or colleges; teachers' work was evaluated by students' achievements; students' qualities were evaluated by the exam scores. Hu (2001) also indicated that the few employment opportunities and narrow employment approaches meant that entering universities was the main bridge to employment. Therefore, schools, teachers, and parents have to focus on students' exam scores and put pressure on them to

achieve on these tests (Hu & Wang, 2001). The current education actually still focuses on exam-oriented education under the banner of Quality Education (Hu, 2001). For example, since Quality Education includes aesthetic education such as the arts, some schools saw the arts as an add-on to the curriculum. To promote the arts in Quality Education, these schools formulated a new rule that students with special skills could be credited with extra marks or could enter more reputable schools. Parents then forced their children not only to meet the course requirement but also to learn extra skills such as singing or dancing, in order to increase students' academic credits for moving on to a higher division, especially to universities. Thus, the education that was supposed to cultivate the artistic quality of students was virtually changed into the traditional exam-oriented education aiming at moving to a higher division (Hu & Wang, 2001).

Finally, some research also indicated other factors, such as parents' beliefs about education, teacher qualities, and government funding in education (Hu, 2001; Hu & Wang, 2001; Jia, 2000). The deep-rooted traditional philosophies, values, and beliefs of parents affected the implementation of Quality Education. Hu (2001) suggested that high expectations of parents for their children's education, career, and social status resulted in too much emphasis on students' academic achievements. This is also a result of deep-rooted culture; as Li (2001) indicated, one belief is that "academic achievement leads to higher social status" (p. 482). During the long history of China, the government has always used exams to test people's capacity. Academic achievement became a selection criterion for appointing government and local officials based on marks on exams (Bartels & Eppley, 1995). Under such a tradition, high exam grades were seen as a means to money, privilege, and reputation. Therefore, students are motivated to obtain high

academic achievement to improve their job prospects and honor their parents and family (Li, 2001).

Regarding teacher qualities, Jia (2000) indicated that Quality Education requires that the teachers need a fundamental shift and comprehensive enhancement for themselves, including their educational philosophy, ideology, approach, means, knowledge construction, and thinking habits. Therefore, each teacher is confronted with a challenge of self-flexibility and change to fit themselves to Quality Education. Hu and Wang (2001) also indicated that cultivated under the traditional exam-oriented education, with outdated educational philosophies, most teachers got used to referring to the old teaching models, lacked the knowledge and skills required by Quality Education and were unable to meet the demands of Quality Education in practice.

For investment in education, Hu (2001) pointed out that it would be very difficult to expand the investment in education under the current circumstances where educational funds were severely lacking in China. Quality Education requires students' encompassing development, it is necessary to train teachers to adapt to this educational reform, obtain more instruments for students' physical education and aesthetic education, and introduce more materials and instruments to assist flexible teaching approaches (Hu, 2001). This form of whole scale change requires both financial investment and human resource development.

In summary, the difficulties in implementing the Quality Education reform in China originated from the educators' and government's recognition of the problems of the traditional exam-oriented education, which is overly focused on students' marks on exams and a set of rigid teaching methods to restrict the students' all-round development.

Although the Quality Education reform had developed for more than ten years and brought some changes and gained some achievements, it is still very new and at the implementation stage. Since Quality Education is an all-new concept against the established traditional education, there are inevitably many problems during its implementation process:

- There are many misunderstandings about the essence of Quality Education.
- It lacks particular orientation and means on how to achieve the goals of Quality Education in practice.
- There is a tendency to pursuing the new model of Quality Education blindly.
- There is little change in the exam system or the evaluation system.
- Parents' beliefs, teacher qualities, and funding investment impede the shift from the traditional exam-oriented education to Quality Education.

These problems, such as lack of clarity on meaning and approaches, blindly accepting the reform, little change on the exam system, deep-rooted traditional beliefs, inadequate teacher development and funding investment, greatly impede the implementation of the Quality Education reform. Due to these problems, the implementation of the Quality Education reform remains on the superficial level and even deviates from the original purpose of Quality Education. For example, teachers keep facilitating the traditional teaching approaches and students' comprehensive qualities are not really enhanced. These problems pose challenges to the government, educators, parents, students and the society. For example, the government needs to conduct significant changes in the UEE system and provides more training to enhance teacher qualities. Teachers are confused about the ways to achieve Quality Education in practice

and they are not well prepared for the reform. Besides the clear orientation from the government, they also need to find ways for implementation through trials in practice by themselves. Parents need to learn to change their traditional beliefs and focus on their children's individual development instead of on their marks on exams only. Students themselves also need to learn to adapt themselves to the new educational system and take initiative to learn for themselves. The society should coordinate with the government and support the Quality Education reform in every aspect. Since there are a number of problems with the Quality Education reform, I would like to refer to the general theories of educational reform or change to better understand these problems.

General Theories of Educational Reform or Change

Actually, the problems during the implementation process of Quality Education in China are not unusual to educational reform or change. "Some reforms seem straightforward in basic intent, but their implementation still raises many issues of detail" (Levin, 2001, p. 144). There is ample research on educational reform or change demonstrating similar problems. The following examples illustrate this point.

First, concerning the problem of clarity, as Fullan (2001) claimed, clarity about goals and means is a perennial major problem during the implementation process of an educational reform, especially a complex one. Similarly, Levin (2001) indicated that it was very likely that there would be a lot of confusions in any major educational reform since people try to figure out what a change might mean in their own particular settings. Fullan (2001) also claimed that "false clarity occurs when change is interpreted in an oversimplified way; that is, the proposed change has more to it than people perceive or realize" (p. 77).

The Quality Education reform also lacks clarity due to various interpretations of its essence (Deng, 2001; Hu & Wang, 2001; Huang, 2001). As mentioned before, Huang (2001) indicated some schools simply interpreted Quality Education as more extracurricular activities. Deng (2001) also pointed out some educators believed implementing the reform was abandoning exams totally. These schools or educators perceived the Quality Education reform from their own circumstances in an oversimplified way.

Second, regarding the problem of lacking orientation and means for implementation of educational reform, Levin (2001) similarly indicated that some teachers might like an educational policy but not know how to implement it due to lack of necessary supports. To achieve large-scale reform, Fullan (2000) believed that “there is still the problem of superficial implementation when new materials are in use, and even new practices in evidence, without the deeper understanding required for substantial and sustained implementation” (p. 23). When there has been a major reform or change in education without adequate support and orientation, teachers are likely to revert to what they find familiar and comfortable. Teachers end up teaching the new curriculum in the same way. In situations like that, change cannot occur and is actually not realized. Fullan and Hargreaves (1991) suggested that “however noble, sophisticated, or enlightened proposals for change and improvement might be, they come to nothing if teachers don’t adopt them in their own classrooms and if they don’t translate them into effective classroom practice” (p. 13).

This is also happening with the Quality Education reform in China. The new textbooks have been put into use to promote the reform (MOE China, 2000). However,

how to implement the Quality Education reform in practice still confuses teachers. As mentioned before, Hu and Wang (2001) indicated such problems teachers encountered as how to develop each kind of quality of students required by Quality Education. Since teachers were not informed with the specific approaches for implementation, even though there are new textbooks used, they returned to their original educational philosophies and teaching approaches. The implementation of the Quality Education reform remained on the surface level (Hu & Wang, 2001).

Third, the problem of blindly adopting change also somewhat corresponds with one of the reasons that Fullan and Hargreaves (1991) identified for a failed reform. They argued that “there are tendencies toward faddism and quick-fix solutions” (p. 13). This is especially the case with ambitious reforms, as Fullan (2001) claimed that “when adoption is more important than implementation, decisions are frequently made without the follow-up or preparation time necessary to generate adequate materials” (p. 79). China’s Quality Education reform is initiated by the government to promote the whole civic qualities based on the recognition that the established traditional educational system is unable to meet the needs of the development of the society. This is a large-scale reform and is aimed to achieve a long-term ambitious goal. The officials at various levels are easily promoted to adopt this reform and implement it in a hurried way to cater to the government’s calling for the reform. As mentioned before, Deng (2001) indicated that some educational administrators made decisions blindly and in a haste to demonstrate their achievements in the promotion of the reform. In such cases, they usually did not provide adequate plans or materials to support and sustain the decision, which resulted in superficial outcomes.

Fourth, with regard to the external factors, especially the systems, Fullan and Hargreaves (1991) contended that “follow through support systems for implementing policy initiatives are not provided” was one reason for failed reforms (p. 13). Fullan (2001) also claimed that although many governments put pressure on local districts, only a few combined their pressure and adequate support. Governments were easily preoccupied with policy initiation and underestimated the problems and processes of implementation (Fullan, 2001). Levin (2001) also indicated that “schools have also been affected by changes in the larger educational system. At one time, for example, high school graduation was an important lifetime credential with significant labor market value” (p. 148). Such research agrees well with the current situation that the UEE system is a big barrier to implementation of the Quality Education reform in China. Partly due to the importance of university graduation certificates in the labor market, the UEE still plays a decisive role in students’ lives (Hu, 2001; Hu & Wang, 2001). Hu and Wang (2001) also argued that since there was only one set of exams to decide whether or not students could enter universities or colleges, such an intense centralized and standardized system restricted the enhancement of exam qualities, hindered the reforms on other exam systems and impeded the Quality Education reform. Hu and Wang (2001) indicated that due to the importance of the UEE, schools, teachers and parents had to continue to do what they did under exam-oriented education. For example, schools tried to cancel or reduce the time for those subjects not required by the UEE; teachers squeezed the three-year program into two years and required students to do a large amount of exercises and practice previous University Entrance Exams for the remaining year; teachers occupied students’ spare time and did not concern students’ physical and mental health; teachers

and parents focused on students' marks only and did not pay attention to their ethical and psychological qualities and other skills (Hu & Wang, 2001).

Fifth, for other factors, the existing culture, beliefs, and practices are regarded as additional barriers of reform implementation. Levin (2001) indicated that a policy that does not fit with people's common practices is likely to be resisted. Many researchers considered that teachers played a significant role during the implementation process. For example, Levin (2001) claimed that "the skills and attitudes of teachers would seem to be an absolutely critical factor in implementation" (p. 145). As mentioned before, most of the Chinese teachers did not acquire those qualities to meet the requirement of Quality Education due to being influenced by traditional education for a long time (Hu & Wang, 2001). For example, teachers only lectured but were not concerned about students' physical and psychological development; they lacked the responsibilities; they had low capacities and rigid approaches (Hu & Wang, 2001). In other words, these teachers' lacking advanced philosophies and approaches and high knowledge and abilities caused them to be unable to achieve the goals of Quality Education in practice, which directly and largely impeded the implementation of the Quality Education reform.

Regarding the government funding in education, Levin (2001) believed that "it is necessary to consider both the provision of additional funds to schools to support reforms and the additional spending that governments needed to make in their own operations in order to implement their commitments" (p. 158). As indicated before, the government funding was not sufficient for education itself due to the way funds are allocated to various sectors (Hu, 2001). Hu (2001) indicated that simple funding for "blackboard and chalks" would be enough for exam-oriented education. However, such a simple teaching

model was not applicable to Quality Education since Quality Education required more and varied instruments to assist flexible teaching and provide students opportunities for more comprehensive activities. Lack of funding investment restricted the development of Quality Education to some degree.

In general, Fullan (2001) listed three main categories of nine factors affecting the implementation process of educational reforms or changes: (a) characteristics of change, (b) local characteristics, and (c) external factors. The first category includes four factors: need, clarity, complexity, and quality/practicality. The second one involves district, community, principal, and teacher, while the third category refers to government and other agencies.

Moreover, Fullan's (1993) *eight basic lessons of the new paradigm of change* presented a clearer picture on the complexity of reforms and provided some implications for the implementation of educational reforms:

Lesson One: You Can't Mandate What Matters

(The more complex the change the less you can force it.)

Lesson Two: Change is a Journey not a Blueprint

(Change is non-linear, loaded with uncertainty and excitement and sometimes perverse.)

Lesson Three: Problems are Our Friends

(Problems are inevitable and you can't learn without them.)

Lesson Four: Vision and Strategic Planning Come Later

(Premature visions and planning blind.)

Lesson Five: Individualism and Collectivism Must Have Equal Power

(There are no one-sided solutions to isolation and groupthink.)

Lesson Six: Neither Centralization Nor Decentralization Works

(Both top-down and bottom-up strategies are necessary.)

Lesson Seven: Connection with the Wider Environment Is Critical for Success

(The best organizations learn externally as well as internally.)

Lesson Eight: Every Person Is a Change Agent

(Change is too important to leave to the experts, personal mind set and mastery is the ultimate protection.) (pp. 21-22)

Fullan (1993) also concluded a pattern from these eight lessons of the educational change to explain these lessons:

Simultaneously pushing for change while allowing self-learning to unfold; being prepared for a journey of uncertainty; seeing problems as sources of creative resolution; having a vision, but not being blinded by it; valuing the individual and the group; incorporating centralizing and decentralizing forces; being internally cohesive, but externally oriented; and valuing personal change agent as the route to system change. (p. 40)

Therefore, educational change or reform, especially a large-scale educational reform is a complex process. The implementation of educational reform is especially crucial as it relates to the success while there are inevitably many problems in this process and the more complex the reform, the greater the problems. Among these problems, clarity and system support are major ones, which are also significant problems at the current implementation stage of Quality Education in China, a large-scale, in-depth, and all-new educational reform. It suggests that the whole society such as students, teachers, parents,

administrators, the government, needs to participate in and promote the educational reform in China since a reform, especially a large-scale reform involves each person as a dynamic motivation (Fullan, 1993, 2001).

However, change should not be stopped because of the complexity of change and inevitability of problems with it. Improvement is still possible in every situation (Levin, 2001). Fullan (1993) also held that we could learn from problems and go forward. It is also possible that the Quality Education reform in China can bring change and improvement to Chinese education. As mentioned before, educators and the society have recognized the problems of traditional education and would like to promote Quality Education to enhance civic qualities. There has also been some change and improvement brought by the reform (Hu & Wang, 2001).

After examining the theories of the educational reform or change, I present the general theories of constructivism and constructivist teaching and learning in the following section since I believe the constructivist approach can serve as a guiding theory to the Quality Education reform.

Constructivism in Education

As mentioned before, China's education had been based on an exam-oriented, traditional or transmission model. However, nowadays, few educators in the West believe that direct transmission of information between two people's minds is possible and many educators emphasize the individual or personal construction of meaning and understanding (Bainbridge & Malicky, 2000). However, there is very little research on how to shift Chinese educators' traditional philosophies to constructivism. In this section, I provide a general of the theories of constructivism. I will compare constructivism and

Quality Education and suggest possibilities for integrating constructivism into Quality Education.

Constructivism holds that knowledge is constructed when people encounter new ideas, problems, or experiences, which interact with their existing knowledge, beliefs, and values (Glickman, Gordon, & Ross-Gordon, 2004). Glasersfeld (1996) held that constructivism included three aspects: adaptation instead of representation, the concept of an environment different from the ordinary one, and the construction of meaning. The cognition of “mind as constructor” is well captured in the description by Gardner (1985):

Human subjects do not come to tasks as empty slates; they have expectations and well-structured schemata within which they approach diverse materials...the organism, with its structure already prepared for stimulation, itself manipulates and otherwise reorders the information it freshly encounters. (p. 126)

Spivey (1997) also emphasized the construction of knowledge and the interaction with the environment or society as constructivism:

An emphasis on active process of construction of meaning, attention to texts as a means of gaining insights into those processes, and an interest in the nature of knowledge and its variations, including the nature of knowledge associated with membership in a particular group. (pp. 23-24)

For constructivist teaching theories, Zahorik (1995) states that constructivist teaching emphasizes thinking, understanding and self-control over behavior. This type of teaching, which has emerged in recent years, is called constructivist teaching because it is based on the notion that humans are constructors of their own knowledge, rather than reproducers of someone else’s knowledge. Zahorik (1995) also claimed that in constructivist teaching

theory, knowledge is conjectural, fallible, constructed by humans and grows through exposure, while humans were regarded as having a built-in aversion to disorder, with internal knowledge structures that guide perception, understanding, and action and learning is a matter of strengthening the internal knowledge structures. Zahorik (1995) also mentioned there are five basic elements of the constructivist teaching practice: activating prior knowledge, acquiring knowledge, understanding knowledge, using knowledge, and reflecting on knowledge.

Zahorik's (1995) view of constructivist teaching suggests that the constructivist teaching approach emphasizes students' internal knowledge construction instead of accepting other people's knowledge passively. It values students' prior knowledge and focuses on students' understanding, application and reflection on knowledge. These are what Quality Education emphasizes that teaching should motivate students' initiative in learning and pay attention to their understanding and application of knowledge (CCCPC & the State Council, 1999). The constructivist teaching theories can provide a clearer and deeper understanding of Quality Education in China due to their similarity.

Regarding constructivist learning theories, Phillips (2000) stated that constructivist learning theory has two basic premises: (a) learning takes the knowledge, attitudes, and interests students bring to the classroom in the first place, and (b) learning results from the interaction between these characteristics and experience in a way that learners construct their own understanding from the inside. Phillips (2000) claimed simultaneously constructivist pedagogy is parallel to those of constructivist learning theory: (a) instruction must take the knowledge, attitudes, and interest students bring to the learning situation in the first place, and (b) instruction must be designed so as to

provide experiences that effectively interact with these characteristics of students so that they may construct their own understanding.

In addition, Brooks and Brooks (1999) came up with five guiding principles of constructivism in education: First, posing problems of emerging relevance to students; second, structuring learning around primary concepts: the quest for essence; third, seeking and valuing students' points of view; fourth, adapting curriculum to address students' suppositions; fifth, assessing students learning in the context of teaching. These principles suggest that to promote the Quality Education reform, teachers should take into consideration students' experiences, interest and concerns; focus on big and fundamental ideas of knowledge; respect students' views and responses to encourage them to develop their thoughts; associate students' thoughts to curriculum flexibly; and evaluate students' learning process linked with teaching.

To be clearer, Brooks and Brooks (1999) also listed a set of descriptors of constructivist teaching behaviors by which we can get an impression of a constructivist teacher. First, constructivist teachers encourage and accept student autonomy and initiative. Second, constructivist teachers use raw data and primary sources, along with manipulative, interactive, and physical materials. Third, when framing tasks, constructivist teachers use cognitive terminology such as "classify," "analyze," "predict," and "create." Fourth, constructivist teachers allow student responses to drive lessons, shift instructional strategies, and alter content. Fifth, constructivist teachers inquire about students' understandings of concepts before sharing their own understandings of those concepts. Sixth, constructivist teachers encourage students to engage in dialogue, both with the teacher and with one another. Seventh, constructivist teachers encourage

students' inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of each other. Eighth, constructivist teachers seek elaboration of students' initial responses. Ninth, constructivist teachers engage students in experiences that might engender contradictions to their initial hypotheses and then encourage discussion. Tenth, constructivist teachers allow wait time after posing questions. Eleventh, constructivist teachers provide time for students to construct relationships and create metaphors; twelfth, constructivist teachers nurture students' natural curiosity through frequent use of the learning cycle model.

These twelve lists of description suggest that teaching should be student-centered, which is also Quality Education's orientation. It has some of the following suggestions for teaching under Quality Education: encourage students' initiative; use materials which provide room for construction of knowledge; encourage students' to analyze and predict; be flexible with teaching approaches and content according to students' responses; encourage students to learn to understand concepts independently; encourage students to be more interactive in communication of ideas; ask open-ended questions; help students to develop their thoughts; encourage students to construct knowledge through experiences; provide enough time to students to develop their thoughts; help students to construct the connection between knowledge; arouse students' interest (Brooks & Brooks, 1999).

In this review, I have suggested there are some links between constructivism and Quality Education and constructivism has some suggestions for Quality Education. After examining research on Quality Education, theories on educational change, and general theories on constructivist teaching and learning, I will examine some of the major

research in China that directly links between Quality Education and constructivism in the following section.

Quality Education and Constructivism

In China, there are some recent studies on constructivist teaching, linking it to Quality Education. For example, Zhang (2001) believed that under the traditional educational philosophy knowledge was fixed and subject content was regarded as an input from outside to inside. The teaching ignored students' cognition abilities and their original knowledge and experiences and tended to be overly simplified. Zhang (2001) suggested that the constructivist educational philosophy is significant for the shift from the traditional philosophy and the Quality Education reform since it emphasized the construction, socialization and situation of knowledge. He indicated that the constructivist philosophy can help students to construct true and flexible knowledge and enhance their initiative and critical abilities, and promote, on the other hand, their problem-solving abilities and continuously develop their interest in knowledge while discovering and solving problem. Liu (2002) also argued that constructivism, which is embodied in a problem-based learning model, has three points of implications for the Quality Education reform in China. First, the objective of learning in schools should be based on flexibility of knowledge and high-level thinking ability. Second, the teaching should be based on practical or hands-on activities, which integrates the application and understanding of knowledge. Third, students should be encouraged to take initiative and teachers should promote their motivation. Liu (2002) believed that the constructivist model had much to enlighten the Quality Education reform, which is centered on practical ability, creativity and initiative. CCCPC and the State Council (1999) indicated

that Quality Education was to cultivate students' creative thinking abilities and problem solving abilities. The main purpose of Quality Education is to develop students' initiative (Wang, 2000; Xiang, 2002).

Second, in the same way, the official description of Quality Education can reveal the similarity between the guiding ideology of Quality Education and constructivist theories. It can be concluded that both Quality Education and constructivism try to avoid one single-way of input for teaching in traditional educational philosophies and try to set up multiple-ways of communication in a creative and reconstructed learning environment. Their overall goal is to explore students' potential and cultivate their creativity and practical abilities. I also identified some key terms used in Quality Education that connects to constructivism. From the published document, the following words or phrases can be found: "to apply heuristic and discussion teaching model," "to motivate students' initiative and creativity," "to develop students' flexibility," "practical abilities and capacity of solving problems" (CCCPC & the State Council, 1999). In constructivist theories as mentioned before, Brooks and Brooks (1999) indicated that constructivist teaching emphasized exploring students' thoughts, encouraged interaction, discussion and creativity and engaged students' practical experiences. All of these were to encourage students' initiative and to construct their own knowledge. Therefore, it is evident that there are links between constructivism and Quality Education through similar phrases used in literature.

Third, the contrast between traditional teaching and constructivist teaching can also indirectly demonstrate the links between constructivism and Quality Education. Glickman, et al. (2004) indicated that to the constructivist, knowledge is not common or

universal, fixed or unchanged, but is reconstructed by learners who are at the center of the learning process. In general, constructivists clearly reject direct teaching characterized by teacher presentation, student practice, and teacher correctives. As Glickman, et al. (2004) found, there are six fields in which traditional and constructivist classrooms differ from each other. In a traditional classroom, the educational purpose is to transmit knowledge, with content-centered and rigid curricula. Teachers tend to instruct discrete pieces of information in a broad way. Teachers design the entire instructional process and expect students to produce correct answers, to recite and keep practicing and students are assessed through objective tests with grades. On the other hand, in constructivist classrooms, the educational purpose is the construction of knowledge with problem-centered and flexible curricula. Teachers focus on large and deep problems and have students participate in the planning process. Teachers initiate open-ended discussion and ask students to solve problems in group work. Students are assessed on learning processes, such as active participation in classes.

Quality Education is a shift from traditional exam-oriented education. It is similar to constructivism that both of them are supposed to resist the rigid transmission teaching approach as that of Chinese traditional education. The goal of Quality Education is to develop students' initiative and practical abilities. This is also similar to that of education under the constructivist philosophy.

Airasian and Walsh (1997) also made a vivid description of the contrast of the traditional and constructivist teaching:

In a constructivist approach, teachers will have to learn to guide, not tell; to create environments in which students can make their own meanings, not be handed

them by the teacher; to accept diversity in constructions, not search for the one “right” answer; to modify prior notions of “right” and “wrong,” not stick to rigid standards and criteria; to create a safe, free, responsive environment that encourages disclosure of student constructions, not a closed, judgmental system. Students will also have to learn new ways to perform. They will have to learn to think for themselves, not wait for the teacher to tell them what to think; to proceed with less focus and direction from the teacher, not to wait for explicit teacher directions; to express their own ideas clearly in their own words, not to answer restricted-response questions; to revisit and revise constructions; not to move immediately on to the next concept or idea. (p. 448)

From this description, it is also implied that constructivist teaching and learning can be linked to Quality Education. For example, constructivist teachers’ not looking for the only “right” answer is to encourage students’ thinking, motivate students’ initiative, and develop students’ own potentials. At the same time, Quality Education is to move away from the evaluation system only based on objective exams which are based on “right” or “wrong” questions or questions with only one answer.

In summary, Chinese education had been traditional, exam-oriented, and theory-focused. The Quality Education reform was initiated to shift from traditional education based on people’s realization that traditional education was unable to meet the needs of personal and societal development. The contrast between traditional education and Quality Education corresponds with the contrast between traditional education and constructivist education to a large extent. Thus, the constructivist philosophy can also be linked to Quality Education from this aspect.

There are many problems currently with the implementation of the Quality Education reform, such as misunderstandings, confusion, faddism, superficiality and deviation due to the unchanged exam system or the evaluation system and lack of new educational philosophy to guide. These problems coincidentally agree with the review of literature on educational change. Problems inevitably occur as claimed by these educational researchers. At the same time, the fact that we cannot avoid problems does not mean we can or should do nothing. A closer examination of the constructivist theories and Quality Education might reveal some links between them. Some Chinese educators' research also suggests that the constructivist approach might be applicable to the Quality Education reform in China. However, it should be noted that there is little research linking constructivism and Quality Education directly and few Chinese teachers facilitate the constructivist approach to promote Quality Education. In this paper, I argue that constructivism has links to and can serve as a guiding philosophy to solve the problems during the implementation process of the Quality Education reform, such as help to clarify various misunderstandings, offer some suggestions on how to make changes on the exam system, and orient its implementation in practice.

CHAPTER III
METHODOLOGY
Instrumentation

I situated my study within a qualitative research methodology. First, the original motivation for me to write on this topic was that I was concerned about the implementation of Quality Education in China. This is in accordance with Creswell's (2005) stance that the aim of qualitative research is to obtain a deep understanding of the problem of interest to the researcher. Second, this paper explores the perspectives and concerns of the Chinese international students at a Canadian university on Quality Education in China and the constructivist approach in Canada. As Fraenkel and Wallen (2003) indicated, what participants are thinking and why they think the way they do is what qualitative researchers are concerned about. I am curious about the students' understanding and how they make sense of both constructivism and Quality Education. Third, qualitative researchers tend to use empirical observation to grasp the processes by which people construct meaning and to describe what those meanings are (Bogdan & Biklen, 2003). Participants' responses to my interview questions and the implicit meanings in their answers were the emphasis of this paper. Fourth, another rationale for the use of qualitative methodology was that I preferred to be more subjective and reflexive in doing research. Qualitative researchers believed that subjective interpretation based on empirical data is necessary to uncover how they make sense of their circumstances (Hatch, 2002).

Specifically, this study was conducted using ethnographic research methods. There were several reasons why this was ideal for my study. First, ethnographic

methodology can be used when a researcher has a culture-sharing group to study (Creswell, 2005). My research subjects were selected from the Chinese international student population of a Canadian university. They shared the same cultural background in learning and/or teaching experiences. Second, ethnographic research is conducted when the study of a group provides understanding of a larger issue (Creswell, 2005). My topic was related to the ongoing Quality Education reform in China, the educational philosophies in China and Canada, and the links between Quality Education in China and constructivism. How to implement the Quality Education reform is really a challenge because it involves many complex dimensions, such as the changing of an educational philosophy. Third, I was interested in the shared experiences, attitudes, and perspectives of the Chinese international students in Canada towards Quality Education and the constructivist approach. Fraenkel and Wallen (2003) suggested that researchers want to obtain a holistic picture if they conduct an ethnographic study. This was precisely what is called for in my study as I would pay attention to each participant's view, and then I tried to explore their common understandings of both Quality Education and the constructivist approach from a holistic perspective.

Participants

Since many Chinese international students, like me, experienced two different teaching styles in China and Canada, participants were selected from the Chinese international students at a Canadian university. Their first language was Chinese, and they had at least finished senior high school in China and had been studying abroad in Canada for less than four years. The length of learning experiences in China was required to guarantee they had enough experiences with the Chinese traditional educational system.

Similarly, since the Quality Education reform in China was formally introduced in 1999, most would have been familiar with the Quality Education reform in China. In the same way, their learning experiences in a Canadian university was necessary to ensure that they had experienced the Canadian teaching style which was quite different from that in China.

After getting permission from the Research and Ethics Board at the University of Windsor for consent to conduct this study, students were selected and asked to participate in the study. The total amount was 15 people, aged from 20 to 30. Participants were divided into two groups. One group included six Chinese international graduate students from the Faculty of Education. These students not only had learning and teaching experiences in China, but also had learned theories of constructivism and experienced constructivist teaching and learning in Canada. Their understandings of Quality Education in China and the constructivist approach were an important part of my research. Their teaching experiences in China would provide a more professional perspective as educators towards my topic. They might also make some meaningful suggestions on the implementation of the Quality Education reform in practice depending on their knowledge of constructivism. The second group of participants was composed of nine Chinese international students selected from other departments/faculties, i.e., one from biology, two from business, one from communications, one from computer science, three from economics, and one from computer science and business combined. These students also had experienced two different educational philosophies between China and Canada but did not have any teaching experiences. The variety in their major background might

offer more perspectives for an understanding of the Quality Education reform in China and raise more concerns and issues.

Procedures

Participation in this study was voluntary. I informed participants about my research purpose, plans, activities, and the length. I showed my respect for their beliefs. Pseudonyms or general names were used throughout the study to protect anonymity of the participants. Only the researcher had access to the electronic data obtained from the study. Upon participants' request, the researcher agreed to allow them to view their own data. The information would not be revealed to any other person to protect confidentiality. Raw data would be destroyed two years after the research was completed.

As I mentioned before, participants were divided into two groups. The first group was composed of six Chinese international graduate students from the Faculty of Education and the second group members consisted of nine Chinese international students from other departments or faculties. Interviews were the main source of my data for this study. I also observed participants' reactions and made observations of their body language and non-verbal cues. The following were specific procedures.

Phase 1: One-on-one semi-structured interview with the first group.

Step 1: Introduction. I explained to each participant the general guidelines and total time for the interview (30 minutes approximately) and ensured that he or she knew clearly that the interview was confidential and voluntary.

Step 2: Consent. I gave the Consent Forms to each participant to read and sign.

Step 3: Data collection. Each participant was asked mainly open-ended questions based on designed interview questions. The whole procedure was recorded on a digital

voice recorder. Each participant had the choice of answering in English and/or Mandarin at his or her ease. All of them preferred to use Mandarin. The main idea of each answer and some other notes were kept on paper.

Phase 2: One-on-one semi-structured interview with the second group.

I repeated all the steps in Phase 1.

Phase 3: Transcription. All digital data from the digital recorder were translated and transcribed from Mandarin into English by the investigator.

Phase 4: Verification. I invited each participant through emails to check whether the transcript was written and translated accurately to represent what he or she meant. Each participant was asked to clarify, elaborate, confirm, and add or remove relevant information. Each participant had access only to those translated transcripts of interviews related to him or her.

Phase 5: Data analysis. I conducted data transcription and data analysis concurrently in and immediately after the interviews. Specifically, I used content analysis for this study.

Interview Guide

According to my topic and research questions, I derived four themes to conduct my interview: (a) comparison between China's traditional education and Canadian education, (b) understandings and concerns of Quality Education and its implementation (c) experiences with the constructivist approach, (d) informing Quality Education through a constructivist approach. Then I designed some questions for each group from these four themes to guide the semi-structured interviews (See Appendix A.).

Validity and Reliability

Various strategies were used in this study to enhance the validity and reliability. First, before data collection, I selected participants from various departments/faculties as diverse as possible to enhance the validity and reliability of the study. I also developed some open-ended interview questions to ensure the responses would not be limited by dichotomous (yes or no) questions. Furthermore, since the interviews were conducted in Mandarin which is the first language of both the participants and the researcher, the chance of errors in expression and inaccuracy of translation was reduced.

Second, during the interview, the main ideas of the answers received from the participants were jotted down to reduce distortions of later transcriptions. While conducting observations and interviews, both the participants' reactions, such as emotions and tones and the researcher's personal thoughts were recorded. These notes would help the researcher to grasp the real thoughts of the participants and remind the researcher of those special answers when doing data analysis later. I also frequently double checked in the process of interview with the participants using paraphrase, inference or conclusion according to my understandings of their answers.

Third, for data transcription and translation, the data was transcribed and analyzed concurrently during and immediately after the interviews. This would keep me fresh with the data and leave fewer misunderstandings. An initial data analysis helped to improve my interview skills and questions. For complete data analysis, I listened to each interview several times to make myself familiar with the content and general ideas and to ensure that I would not misunderstand the interviewees and that I could translate the data as accurately as possible. Besides the answers, the specific questions were also transcribed

in order to gain a better context of the corresponding answers although there were designed questions for interviews in advance. Additionally, member-checking was also an important way to verify the transcripts. I invited each participant through emails to check whether the transcript was written and translated accurately to represent what he or she meant. Each participant was asked to clarify, elaborate, confirm, and add or remove relevant information.

Fourth, for doing data analysis, I kept referring to the original data any time when necessary. I compared one participant's descriptions of something with another participant's descriptions of the same things to check whether there were discrepancies in descriptions. I also invited several colleagues to review and evaluate the report.

CHAPTER IV

FINDINGS

According to the research questions and interview questions, I would like to highlight four major themes that emerged from the data. First, I offer a comparison between China's traditional education and Canadian education based on the Chinese international students' understanding of the differences they experienced between the two educational systems. Second, participants discussed their understanding of Quality Education in China and its implementation. Third, I present the research participants' experiences with constructivist teaching and learning in Canada and China. Finally, I explore how their understanding of constructivism might serve to inform Quality Education in China. In this paper, I argue that Chinese international students in Canada bring a unique perspective from their educational experiences in both China and Canada. The literature suggests that there are some connections from constructivism that have direct implications for the implementation of the new Quality Education in China. Perhaps, these international students' understanding, comparisons and reflections on their experiences in both educational settings might provide some insights into the links between constructivism and Quality Education.

Chinese Education versus Canadian Education

The Chinese international students in this study identified a number of differences in their comparison of the Chinese and Canadian educational systems. For example, they believed such issues as the classroom environment, the relationship of the teacher to the students, the teaching approach used in the classroom, teaching content and emphasis, and the evaluation measurement of students were major points of difference between both

systems. To be specific, first, these participants' impressions of the Chinese classroom environment were that it was too rigid and students were passive. At the same time they felt very relaxed and active under the environment of the Canadian classrooms. Second, the participants recalled the feeling of being controlled by the teachers in China while they felt the Canadian professors were more like guides. Third, regarding the teaching approach, they viewed Chinese teaching as curriculum- or teacher-centered and Canadian teaching as flexible and student-centered. Fourth, according to the participants' views, the teaching content in China was theoretically emphasized while the Canadian professors paid much more attention to practical abilities of students. Fifth, under the Chinese educational system, the objective final exams were the only evaluation measurement while the Canadian educational system used various and flexible forms to evaluate a student. Finally, there were some common paradoxes that emerged from the data, i.e., the participants identified learning in China as extrinsic based on outside pressure, and learning in Canada as intrinsic based on inside stress. The following section elaborates on these findings.

Classroom Environment: Closed versus Open

The participants in the study identified the environment in the classrooms as a major difference between studying in China and studying in Canada. In general, they described the environment as rigid or inflexible in the Chinese classrooms, which was totally different than in the Canadian classrooms. That is to say, they described Canadian classrooms as being more relaxed and active.

For example, participants had this to say about the Chinese classrooms: "In China, students are required to keep quiet and sit well and those primary students are even

required to put their hands behind their back” (Judy). “Students are passive. They sit there, listen, simply accept what teachers teach, and rarely raise questions” (Christina).

Some participants also identified some possible reasons for the rigid and inflexible environment. For example, Simon indicated that the Chinese culture meant being silent was a way of respecting teachers. Another student, Susan believed that the traditional approach to teaching in China required students to be silent listeners or receptors of knowledge from the teacher.

Others had this to say about the Canadian classrooms: “In Canada, students can eat food, drink water and even have jokes with the professors. It is impossible in China” (Victor). “Canadian classes are more dynamic instead of rigid” (Judy).

Approximately half of the participants indicated that they did not like the too rigid and passive environment in the Chinese classrooms. Among them, four participants clearly stated that they believed that the active and relaxed environment in Canada was beneficial to students’ learning. For example, Judy said, “In Canada here, students are not so reserved and nervous in class, which I think is very helpful to students’ learning. After all, students are not under any pressure.”

As has been said, the participants described both the Chinese educational system and the Canadian educational system with respect to the classroom environment. They described the Chinese system as rigid and closed in a negative tone while they preferred the Canadian system because it is more free and open. By rigid and closed, the participants meant that they believe the Chinese traditional culture in teaching and learning is still too inflexible and it is less conducive to stimulating students’ initiative. By free and open, the participants meant that in Canada, students are motivated to think

actively and therefore the learning involves intrinsic motivation. The comparison corresponds with the contrast between the traditional classrooms and the constructivist classrooms. Their description of the two educational systems suggests that creating a free and open classroom environment for students is one aspect of constructivist learning that appeals to participants because it seems less restrictive than education in China.

Relationship of Teachers to Students: Controller versus Guide

Another important issue for understanding students' perceptions of the differences between the two educational systems is the relationship of the teacher to students.

According to the participants, the Chinese teachers were more like "controllers" while the students were "followers." They indicated that in China's setting, teachers were viewed as authoritative in class and students rarely had their own opinions. The teachers dominated the class and controlled all aspects, such as the assignments, the agenda, and the environment. The participants also indicated that the teaching was one-way: that is to say, teaching was simply lecturing from the teacher without students' feedback. The teachers used a transmission approach where knowledge was assumed to be transmitted to students. For example, Jessica had this to say, "In China, the teacher is in the center and students are dominated and teachers have the right of control absolutely." Similarly, Christina had this feeling that "the teachers in China are always transmitting knowledge and students follow the teachers."

In contrast, these participants felt more equal and free in Canadian classrooms and believed that Canadian professors played the role of guide. The participants indicated that the students were given more ownership of their learning, and they had to do much more independent study and learn to think for themselves. Learning was more democratic and

negotiated. For example, participants had this to say about the relationship between professors and students in Canada: “The relationship between students and professor here is more equal, which is not a relationship between the superior and inferior as in China. Knowledge is not just from teachers’ lecture, but is constructed on mutual study” (Jessica). “It is a kind of ‘constructivism’ and the professors play the role of ‘guide’” (Christina). “Unlike in China, you need to spend a lot of your time on reading books or doing research by yourself here” (George).

On the whole, from the comparison of the relationships between the teacher and students, the participants described the Chinese educational system in relatively negative terms and as being more teacher-controlled. On the other hand, they described the Canadian educational system as being more student-centered. This open type of learning environment was appealing to the participants in this study. At the same time, the teachers’ role as a guide, not a lecturer is definitely a distinguishing characteristic of constructivist teaching they see as important in developing students’ initiative.

Teaching Approach: Rigid versus Flexible

Participants’ description of both the Chinese teaching approach and the Canadian teaching approach is also a significant contribution to the difference between the two systems. An emphasis on recitation, note taking, and exclusively following the syllabus and the teachers were aspects that the participants found typically in Chinese classrooms.

For example, Judy had this to say about the Chinese educational system: “Although each teacher has his or her own teaching methods, all of them follow one model of teaching. They follow the textbooks in fixed steps.” According to Jessica’s own teaching experience, “The teaching design is kind of easy. It could just be arranged

according to the syllabus.” Lydia’s university experience in China also demonstrated the rigidity of teaching and learning: “Professors almost lectured word by word based on the teaching materials. Every day we were busy taking notes while the professors read the notes for us.” Similar expressions could be found in Victor’s whole learning experiences in China, “I was always busy with classes, assignments, recitation, and exams. In a word, it could be called ‘routine’ or ‘institutionalized.’”

In contrast, their impressions of Canadian teaching were that it was much more flexible and variable. According to the participants, the Canadian professors were more flexible in teaching and were likely to adopt various teaching approaches. For example, the professors emphasized more interaction in class and they preferred to hear more voices from the students. The participants indicated that the Canadian professors encouraged students to ask questions, express their ideas and communicate with other classmates instead of lecturing only. They also found that the Canadian students actively participated in class discussions and would express their thoughts or raise questions in class.

For example, Judy had this to say about the Canadian teaching approach: “In Canada, for the same course, different professors would be totally different in teaching. Even though the teaching effect might be the same, they would adopt many various teaching methods.” Jessica also considered the teaching and learning in Canada as flexible: “Students will probably raise some unexpected question, which might initiate a wide discussion around the question. It would be impossible if preparing for classes strictly based on the syllabus.” Jennifer had similar feeling that “it is more flexible here and students can speak anything that they want to.”

These participants believed it was beneficial that the students were encouraged to speak out their own opinions and the Canadian professors would help to explore and develop their thoughts. For example, Brian and Lee had this to say about the interactive teaching and learning: “More students here would raise questions than in China and each professor has ‘office hours,’ so questions can get resolved” (Brian). “No matter if it is right or wrong, they encourage you to answer, which is beneficial to creativity. For example, if you have some ideas, the professor will not deny you at all” (Lee).

Ken and Christina also indicated that they noticed that the Canadian students had been more accustomed to this teaching style. “Students can ask questions any time and they like to volunteer to answer questions in class” (Ken). Similarly, Christina had a more vivid example to explain this:

Here in Canada, the professors encourage you to think, even if it is far away from the topic. For example, I had a course on “literacy” yesterday. We Chinese students could only think of reading and writing with “literacy” while the Canadian students could associate it to driving. What was the relationship between them? They also linked how to learn playing guitar with the theory of “literacy.” As Chinese students, our thinking was still narrow. I think the difference is probably because the Canadian students had received this kind of teaching approach from childhood.

Christina’s experience implies that Chinese students have been used to thinking in a narrow and fixed frame. Their thinking has become rigid and lacked creativity under a rigid and closed system. However, since Canadian students are cultivated under a more

flexible and open system, they have formed the habit of flexible thinking with more creativity.

Aside from these common views, there were some exceptions to the feelings on the teaching style from four participants. For example, two participants from the Department of Economics (Nancy & Lynn) did not think there was much difference in teaching between China and Canada. “There is not much difference except that those Canadian professors use heuristic methods and preferred more interactive communications” (Nancy). “In China, the atmosphere is not very active. The professor lecture and the students listen. There are not many questions that need to be answered impromptu. It is ‘lecture-based.’ These are similar to the situation here in Canada” (Lynn). But she also indicated the possible reason for the similarity:

It’s probably because there are many Chinese professors in our Department of Economics. Some of them are very “typical Chinese” in teaching. For example, they don’t like to ask questions too much. They often give us some “hint” by saying that “supposing the similar problem appear in the exam, what should we do with it”? It is very similar to that in China. Then we will mark it as a key point for the exam. There are also many Chinese international students in our department so the competition for graduate assistantships is as intense as in China. Even though some Canadian professors would like to encourage us to speak out, there were only a couple of Canadian students volunteering to answer questions and these professors seemed to give up gradually.

Lynn’s statement suggests that holding the deep-rooted traditional philosophy, both Chinese-born professors in Canada and Chinese international students have formed some

common habits in both thoughts and activities. Especially, since they have been all immersed in the exam-oriented education, they are used to thinking around exams for education.

George, who was enrolled in the graduate program from the Department of Biology, had different experiences with the interactive and flexible teaching in Canada than most other participants. George had this to say: “Our department is a little special from other departments. We are required to take three courses only for graduation and do projects and research most of the time. For one course, we only met in class four times.” George also indicated that this was exclusively for the graduate program and the undergraduate students in his department still had a lot of classes and assignment.

George’s program had its special characteristics. As a graduate student in biology, he did not have much in-class time and most of his time was spent on doing experiments by himself in laboratory or doing research by reading books. Less direct in-class communications with professors and much more time in self-study made him feel that he did not experience interactive and flexible teaching.

Another participant (Susan) from the Department of Communication Studies had a more critical view. She argued that:

Regarding the difference in class between China and Canada, I think it is controversial. In China, teachers sometimes did not require us to participate because they wanted to teach us more. In Canada, although professors want us to “get involved,” and the atmosphere here in Canada is more active, it might not be virtually. As some Canadian students said, “I answer questions simply in order to get the participation marks.” Sometimes they might not understand the topic very

well. They joined the discussion insincerely. On the contrary, although most Chinese students did not express their opinions, it did not represent that they did not know or understand. That's just because they did not like to speak out. So I think we should utilize it comprehensively. If students would participate in discussions and interact with professors sincerely, then it is good for teaching and learning.

I believe that these exceptions are largely because some departments or programs have their own special characteristics. According to the participants who come from the Department of Economics (Lynn & Nancy), Chinese-born professors and Chinese international students occupy the majority of class and that leads to both a physical and psychological situation similar to that in China. The participant from the graduate program at the Department of Biology (George) has less in-class time thus less experience with interactive teaching. Another possible reason for the exceptions is their variance in perspectives that each participant brings towards their experiences in a Canadian classroom. For example, another participant also from the Department of Economics (Lee) still believed that there was great difference between the two educational systems. The participant from the Department of Communication Studies (Susan) held her own views that there were still some shortcomings with the Canadian educational system from her own unique perspective.

From the responses of these four participants, there are two implications. First, how to really facilitate a constructivist approach also challenges the Canadian professors. Although some Canadian professors advocate the constructivist approach, such as counting class participation as one of evaluation measurements, some students simply get

involved in the discussion even though they do not really understand the discussion topic and do not think about it seriously. Second, Canadian professors should notice the special learning philosophy of the Chinese international students influenced by their cultural background as being different from Canadian culture. Chinese traditional culture in education has established a deep-rooted educational philosophy and a relatively rigid teaching model. This traditional philosophy and system has formed the Chinese international students' habitual thoughts and activities about studying and learning. For example, they do not challenge the teachers and they listen to the teachers silently since teachers are regarded as the authority and as superior. They also get accustomed to focusing on exams. They do not engage in much divergent and flexible thinking as they are used to being under a rigid exam-oriented educational system. Therefore, it requires Canadian professors to consider these differences brought by the Chinese international students when teaching. Third, since there is such a deep influence on these Chinese international students and the Chinese-born professors from the Chinese traditional educational philosophy, it might also pose great challenges to the Quality Education reform in China since it requires a shift from the traditional educational philosophy.

In summary, most of the participants indicated that Chinese teaching was rigidly teacher- and curriculum-centered, and a lot of repetitive memorization for students. Their description of the Chinese teaching approach demonstrates that it is largely a transmission approach and is totally dominated by textbooks and exams. It can be inferred that the Chinese students have formed a rigid thinking and lacked creativity due to being under the rigid system for a long time. In contrast, Canadian teaching is described as a constructivist approach and student-centered. The participants believe that

interactive and flexible teaching in Canada could develop students' flexible thinking and creativity. There are only four participants, who do not see much difference in the teaching approach between the two countries. This exception is largely because of special characteristics of some departments or programs. It implies that in general the difference in teaching approaches still exists and most of the participants favor the Canadian teaching style. From the Chinese international students' descriptions and comments, it suggests that on one hand, the constructivist educational philosophy might serve to guide the Quality Education reform for cultivating the students' creativity which is regarded as one focus of the reform. On the other hand, it should be acknowledged that the shift from the traditional educational philosophy with the Quality Education reform might encounter great challenges.

Teaching Content: Theoretical versus Practical

The difference in teaching content between China and Canada was also considered by the participants as a necessary component of the difference between their learning in the two countries. The participants indicated that there were some differences in the emphasis of teaching content. They believe that Chinese teaching is theory-focused, which is discrete and content-centered; Canadian teaching is practice-focused, which emphasizes big ideas or holistic learning and problem solving. For example, Lee had this to say about theory-focused in Chinese teaching:

Many Chinese students can't apply what they learned to practice and their project or research is too "childish." For example, in China, many students majored in accounting cannot keep accounts after their graduation. Education is too far from the practice.

Coincidentally, Louis, a student from the school of business, also mentioned the accounting he learned here in Canada, which is “very practical. For example, students will have opportunities to practice what they learned, i.e., the co-op.”

Regarding the big ideas or holism in Canadian teaching and discreteness in Chinese teaching, Christina gave a vivid example:

The Canadian professors tend to provide you a “whole picture” to give you a clear impression. You learned some big ideas based on some “basics.” In China, although you learned a lot, you didn’t know how to use what you learned.

Similarly, Ken also described Canadian teaching as holistic and practice-focused and viewed Chinese teaching as lack of systematic links:

Here, you get a deeper understanding of the theories through continual reminding and application. Even though you come to a high level, you are still required to apply the basics. In China, you forget what you learned after graduation because you learn a lot blindly and rarely get them connected and reviewed. However, I can say clearly what I learned in Canada. It is sort of “real” and very practical.

Participants’ experiences imply that although the Chinese students learned a great deal in China, their knowledge lacks connection and application. Blindness in pursuing quantity of knowledge and disjointedness between theory and practice result in students’ lack of deep perception of knowledge and practical abilities. In contrast, the holistic teaching approach and emphasis on knowledge application in Canadian teaching helped to deepen students’ understanding of knowledge and develop students’ practical abilities.

Generally speaking, most participants realized that the teaching content in China was indeed discrete and theory-focused rather than holistic and practice-centered, as is

the case in Canada. Consequently, these participants favored the Canadian teaching approach because they believed that what they learned in a Canadian university could be used in their daily life and would be applicable or beneficial to their future life. At the same time, it can be found that the characteristics of Canadian education that emerged from the descriptions of the participants correspond well with the constructivist teaching approach. Therefore, these Chinese international students' preference for holism and practice-centeredness in Canadian teaching suggests that the constructivist approach can serve the Quality Education reform in China in such aspects since the tendency to the development of practical abilities is one of its significant characteristic.

Student Evaluation: Single versus Comprehensive

The participants identified the evaluation system of students as an evident difference between the two educational systems. They indicated firmly that the exams, especially the final exams were the only measurement to assess students in China. The participants additionally mentioned that these exams were overly objective and standardized. In contrast, they stated that various forms were used in Canada to assess students' academic and comprehensive abilities, such as participation, presentation, assignments, quizzes, projects, and papers. All of these forms were flexible and weighted in the overall evaluation of students.

For example, Jessica indicated that "the purpose of studying was simply for the sake of exams, which dominated everything in Chinese schools or universities." Lee also gave an example of the difference between the two evaluation systems: "In China the final exam has 100% weight in student assessment and especially the UEE plays a decisive role in students' lives. However, in Canada the final exam only occupies 40% of

the final marks.” Judy indicated that the form of the Chinese evaluation system of students was objective and rigid while the Canadian evaluation forms were varied and comprehensive:

In China, the objective exams are the only evaluation measurement on students. However, in Canada, the student assessment does not depend on marks only but can also involve many other extracurricular factors. For example, if you work as a volunteer, do some social work, or join some community activities, these can be added into the comprehensive evaluation on student capacity.

Furthermore, the participants indicated some problems with the Chinese exam system and some advantage of the Canadian exam system. For example, in China, since the exams were too rigid and only the final exam is decisive, intense memorization just before the exams could be very effective and efficient. Although this rote memory study was effective in getting high marks, students might not understand knowledge well enough and they lacked application of this knowledge. On the contrary, in Canada, since the evaluation was flexible in forms and content and each one had its weight in assessment, students had a more all-round understanding of the knowledge. Their practical abilities were enhanced during the process of understanding and application of knowledge. The exam-focused approach in China was very one dimensional. Take Christina’s teaching experience as an example for the Chinese exam system:

Sometimes my students came to ask me how to learn English and I told them to simply recite words, texts, and grammar. One of my students told me that he recited a lot of words and practiced a lot of previous exams just before the exam and he got a mark twice as high as he did before.

Similarly stating the effectiveness of rote learning, Jennifer also indicated that “although students can get high marks on exams, they don’t have much practical ability. We usually call it as ‘high marks but low ability.’” Regarding the Canadian exam system, Susan believed that the frequent and flexible exams could be more beneficial to them. She said, “I think the Canadian system is better because frequent quizzes or exams require more self-study, which makes you familiar with the knowledge.”

To summarize, most participants believed there were major problems with the student assessment in China. They indicated that the objective and standardized exams as the only evaluation of students impeded the development of students’ practical abilities. At the same time, they favored the Canadian evaluation system as more flexible and comprehensive, which requires more on students’ independent-study ability and practical abilities and thus conducive to developing these abilities. From the Chinese international students’ concerns on the Chinese evaluation system and preference for the Canadian evaluation system, perhaps, the exam system and the evaluation system in China is limited in its scope to effectively measure students’ all-round abilities. I explore deeper differences between the two educational systems based on the data and I identify these as paradoxes in the following subtheme.

Paradoxes: Extrinsic Learning under Outside Pressure versus Intrinsic Learning under Inside Stress

The theme of extrinsic versus intrinsic learning actually emerged from what the participants described as the difference between the two educational systems; combined with the five foregoing subthemes. In addition, I identify an interesting and surprising theme from the data that the students learned mainly through rote memory and preparation

for exams and tests in China. Learning was not self-initiated and there was little intrinsic motivation to learn. In contrast, their learning in Canada was more self-motivated with some stress as well. Even though the environment seemed to be “free and relaxed,” the stress or pressure to succeed was more internalized by students.

For example, all of the participants unanimously expressed that they needed to spend more time and energy on independent study in Canada than they did in China: “the biggest difference is that you have to ‘study’ in Canada while you did not need to ‘study’, in the same sense, in China” (Lydia). Because of the openness of the curriculum and the shared ownership of their own learning, students found that they brought a different investment in learning in Canada. They felt a lot more detached in China where they approached learning without any feelings of involvement.

These Chinese international students also acknowledged their stress from the greater independent-study requirement under the free and relaxed environment in Canada. For example, Louis and Victor had this to say about their stress experienced with Canadian teaching:

Unlike in China, the professors here do not urge you to do anything, such as to register, attend, and do assignments. You have to do all of them consciously. You have to do self-study. Actually, you experience more pressure than in China.

(Louis)

You are always forced to do something in China. Here in Canada, nobody will force you to do anything and you can choose not to do it. Although it looks very casual, loose and tolerant, it actually puts a lot of pressure on you because the

assignments require you to spend a great deal of time and energy on them. You have to learn to study and live independently. (Victor)

This stress that participants speak of is related to the greater responsibility that comes with taking more ownership for their learning. With the same feeling about the learning experiences, Simon, who has a combined major in computer science and business, indicated the difference originated from the evaluation systems:

In China, all pressure culminates in the final exam or the UEE, which decides your destiny. Parents and teachers add much pressure on you during exams.

However, in Canada, the stress is frequent and is from the system itself; e.g., there is a quiz every several days and marks are recorded every time. You have freedom to choose, e.g., you can choose to drop a course, but once you choose, you have to study or else you will fail.

Similarly, Lynn, who is from the Department of Economics, considered the difference in the characteristics of exams as the reason for the feeling of greater stress:

In China, you only needed to recite those key points that the professors indicated before exams and you could get high marks; in Canada, you have to do self-study a lot after class because the exams are flexible instead of rigid as in China.

Another recurring theme is the contrast between the openness in Canada and the rigid system in China. Students quickly realize that the open curriculum in Canada requires more personal investment on their part. In China, the educational system is rigidly exam-centered and teacher-controlled. At the same time, the final exam is usually the only evaluation method of a student and the UEE especially plays a decisive role in students' academic lives. There is pressure on schools to boost their proportion of students' moving

to a higher division, especially entering a university or college. Parents expect their children to get into a reputable university to honor their family. Under such an exam-oriented educational system and the traditional educational philosophy, teachers, parents, and even the society force students to do well for the exams and thus put pressure on them.

Although the students did well under external pressure, their interest in the learning material was lost and their learning was not self-initiated. The students only needed to “follow” the teachers’ instruction. Students were engaged in very little self-initiated thinking and learning. At the same time, in preparing for their examinations, students relied on intense memorization before the exams. Such short-term gain of knowledge was easily forgotten and they often lacked understanding. As Brown (2000) claimed, rote learning was inefficient for long-term retention because of its discrete and isolated acquisition without reinforcement.

In contrast, according to the Chinese international students, they believed since Canadian professors play the role of guide and both teaching and exams are more flexible, students learned not to depend on professors completely and had to put more time and energy into independent study. Furthermore, the student evaluation system involves various evaluation forms and each one was weighted in a comprehensive form of evaluation. Therefore, the students had to be more self-disciplined because of the freedom and flexibility of the system itself. Thus the pressure from the system was internalized into the stress originating inside students. Students were encouraged to study on their own initiative. In this way, students felt they gained a deep and systematic understanding of knowledge, became more independent in their thinking and learning,

and enhanced their creativity through independent learning. Furthermore, since Canadian education is student-centered, involving student self-edification and practice-focused teaching, students can have their practical abilities enhanced through this form of learning.

Of course, some of the participants acknowledged that Chinese teaching was not all negative. For example, Louis believed that the traditional approach in China prepared him for some of the lecture and exam-oriented courses. Louis found that he was more successful in class because of this congruence:

The Chinese students have a very strong basic knowledge, which is the reason that many Chinese international students here excel in academics. The Chinese-style teaching can also train one's logical conceptions. That's why the Chinese students hardly have problems in Quality Demand Management.

At the same time, all students believed there were some problems with Chinese traditional education to various degrees. For example, Victor had this to say: "It's especially not good for kids. Their natural qualities and interests are killed and their talents and interests are not explored" (Victor). "There was nothing new at all and it was very painful" (Lydia). Although many students could pass the exams and get high marks according to what the teachers emphasized in class, students used the popular Chinese phrase, "high marks but low ability" (Jennifer & Lynn) to express its shortcomings. For their learning experience in Canada on the other hand, most of them favored it as "the teaching style stimulates creativity and cultivates students' practical abilities" (Lee).

The variance in the participants' perspectives indicates that Chinese education has something positive in that it develops students' strong basic knowledge and study skills

to succeed on an exam. However, it suggests that the students do not have a deep understanding of the knowledge to be learned. They are unable to apply what they learned in practice and develop skills for further learning by themselves due to rigid teaching and lack of understanding of knowledge. Furthermore, their creative thinking and talents are not stimulated and explored. It suggests that perhaps the Quality Education reform in China need not abandon some beneficial traditional teaching approaches, but should conduct necessary changes to develop students' practical abilities and their own potentials. Perhaps, in the initial implementation stage of Quality Education, a gradual introduction of the new philosophy and approach needs to be integrated in a gradual way. This will give both teachers and students enough time to adjust to the new reform.

In summary, the paradoxes that emerged from the data imply that it might be fundamentally necessary for the Quality Education reform in China to gradually introduce the new educational philosophy. Some facets of the traditional educational systems like student evaluation and the exam system can be kept, but should be overhauled. The comparison between Chinese education and Canadian education suggests that the student-centered educational philosophy is the central difference between these two systems. The Chinese international students preferred Canadian teaching and learning because under such a philosophy, which can cultivate their initiative, creativity and practical abilities. The students valued the independent study skills they developed in Canada. Since these qualities are also key qualities required by Quality Education, it suggests that the reform should take the philosophy of student-centeredness as its guiding ideology. Furthermore, since the participants have

experienced this educational philosophy in Canadian classrooms, perhaps their perceptions the Quality Education reform lend a unique perspective to the reform. The next section explores these ideas.

Perceptions of Quality Education

In this section, the Chinese international students' perceptions of the meaning of Quality Education and its implementation in practice are examined. These participants were first asked to interpret Quality Education from their own understanding. Then their concerns and perceptions of the implementation the Quality Education reform were elicited.

Meaning of Quality Education

Participants' description of the meaning of Quality Education in China represents one of the sources of their understandings of Quality Education and its implementation. They perceived Quality Education in China to be a shift from the traditional exam-oriented educational system. They also believed the aim of Quality Education was to enhance the all-round qualities of students, especially the practical and creative abilities.

First, the participants understood Quality Education as a shift from the old educational system to an all-new system. They viewed the old educational system as more traditional, closed, and exam-oriented, while Quality Education is a conception opposite to the old one or a reform to improve the old educational system. For example, participants had this to say about their understandings of Quality Education. Lynn indicated that "Quality Education is a reform directed against the old exam-oriented education." Simon thought "Quality Education is a proper noun in China. The so-called

Quality Education is a shift from the cramming education of the past to a Westernized and internationalized track.”

Second, the participants agreed that the aim of Quality Education is to balance students' qualities; that is to say, the purpose of education is not only to promote intellectual development of students but also cultivate students' other qualities, such as physical, ethical, and aesthetic qualities. Some participants held that “Quality Education is to develop all-round comprehensive qualities of students” (George, Jennifer & Victor), or to make them become more “versatile” (Christina).

Third, agreeing with the above opinion, most of the participants also emphasized some specific qualities, such as initiative, social communication, cooperation, creativity, knowledge application, and practical ability. For example, in Brian's opinion, “Quality Education gives students more free space to self-study and it is not as strict as before.” Lynn indicated that “Quality Education is all-encompassing, which is to cultivate students' social practical ability, communication ability and group work ability.” Lee thought that “the ‘quality’ in Quality Education is a kind of learning ability and creative ability.” Jessica especially elaborated her understanding of learning ability:

I think the key of Quality Education is “learning.” I mean the grasp and application of knowledge. It is never enough if you have read a lot of books and known a lot of theories. As a “learner,” the final purpose is the application of knowledge instead of getting high marks for exams. Many people who can get high marks on exams are very poor at practical skills. The purpose of Quality Education, I think, is to teach students how to apply what they learned in classes

to practice. The higher the practical abilities of students, the better the quality of education.

According to Jessica's perception of Quality Education, the Chinese students lacked true understanding of what they learned from class and their knowledge remained on the theoretical level. She believed that the students' ability to apply knowledge to practice is not only the purpose of education but also a measure of the value of education. It suggests that developing the practical abilities of students should be a major task of the Quality Education reform.

In summary, participants' understandings of Quality Education coincidentally agree with the official definition. Their perceptions emphasize practical and learning ability, creativity, and initiative, which are also the focus of the Quality Education reform. Another interesting phenomenon from my field notes is that when I asked the participants about their own understandings of Quality Education, most of their initial reaction was to skip the question and jump to the problems with its implementation. Regarding their avoiding the question of understanding Quality Education itself and eagerness to discuss the problems of Quality Education, I perceived it as their certainty and concerns about the problems with the implementation of the Quality Education reform.

Implementation of Quality Education

As I mentioned above, the participants had much to say and indicated many problems currently existing during the implementation process of the Quality Education reform. There are three major problems that emerged from the participants' description. First, some key words from their initial reaction of the reform revealed its superficiality. Second, according to the participants, no change or little change on the exam system or

the evaluation system impeded the implementation of the Quality Education reform.

Third, various misunderstandings of Quality Education were also regarded by the participants as a major cause of superficiality and deviation from the original purpose of the implementation.

First, regarding the Quality Education reform, the initial reaction of these Chinese international students was “not good enough” (Lee, Lynn, & Susan), “not deep enough” (Ken), “not much change” (George, Jennifer, & Jessica), “no difference” (Nancy), “too superficial” (Lydia & Victor), “sort of vain” (Christina), “just a name” (Judy), and “no changes in content although a little change in the forms” (Brian, Louis, & Simon). These descriptions demonstrated clearly that the Quality Education reform was implemented superficially and did not bring much change.

Second, another major problem was linked with the exam system or the evaluation system. The most frequently-mentioned problem by the participants was that the current exam system, especially the UEE was still the measurement to decide whether or not a student could enter a university or a college. This was still the greatest source of pressure on schools, teachers, parents, and students. This severely hindered the development of Quality Education and caused the implementation to stay on the surface. The Chinese international students discussed this problem to various degrees.

For example, Brian mentioned that “the pressure from moving to a higher division, and especially from high schools to universities, is still very high.” George indicated that “since the overall educational frame, such as the exam system and the recruitment system, has not changed, schools do not have much room to maneuver to implement Quality Education.” Christina elaborated more on this problem:

Students simply become busier under Quality Education because they have to learn more skills. But their creativity is not enhanced much. They are still busy with exams, which is “objective” and “knowledge-based.” Only if you recite more knowledge points, can you get higher marks on exams. At the same time, exams decide whether or not a student can enter a more prestigious school or a higher division, e.g., from a high school to a university. Even if teachers want to cultivate students’ “higher-order thinking,” and “critical thinking,” it is hard to achieve because it is opposite to the current orientation of education.

These participants’ views correspond with the literature of the Quality Education reform. As required by Quality Education, students should develop other qualities aside from intellectual quality, such as the arts. That means schools tend to require students to learn more skills, such as drawing, dancing and playing the piano. However, under the unchanged exam system, that is to say, exams are still in the center of education and control all other aspects as well, education still serves exams and students do not experience much difference under Quality Education. In other words, the Quality Education reform remains on the surface due to its educational system.

Third, it is also a major problem that the meaning of Quality Education was not clarified and the participants identified many misunderstandings about Quality Education. For example, Lee incisively pointed out, “There is no clear definition of Quality Education,” and he elaborated his view with vivid examples as the following:

What on earth is Quality Education? How can we define comprehensive qualities? It’s hard to say. For example, a man became a billionaire without any certificates or degrees. Can you tell he does not have high comprehensive qualities? A Ph.D.

or a scientist can't cook or do some simple daily trifles. How about his comprehensive qualities? I think it is not very clear in the official definition.

Various misunderstandings about Quality Education result in superficiality of implementation and deviation from the original purpose, such as simply making changes in forms, and evaluating Quality Education with some rigid standards. For example, Victor believed that "most educational institutions in China required students to join in various classes to develop special aptitude while not letting them choose on their own. Teachers told students what to do instead of exploring students' own potentials and creativity." Lee also believed that the changing of students' way of thinking was essential for Quality Education instead of working on some forms:

For example, some parents send their kids to some very good schools, such as bilingual kindergartens to cultivate kids' qualities. But it's no better if their children's way of thinking or creative thinking is not enhanced even though they learned more English or gain more knowledge.

Ken argued that it was not real Quality Education that every student was required to learn some skills. He believed that Quality Education should not be evaluated by some rigid standards but by exploring each student's own potentials:

The standard for Quality Education is too rigid, such as requiring students to learn computer science or the arts. I think such an understanding is too one-sided. Each student should develop according to his or her own characteristics. For example, some people may have talents for something, but you should not require everybody to develop towards it. If everybody is the same, then it cannot be called Quality Education.

Lynn also supported that view through her own story. According to her experience, to promote Quality Education, schools should cultivate students based on their own interests instead of assessing students' qualities on their own talents:

In our university, to promote Quality Education, extracurricular activities were involved as one measurement for scholarships competition. Although I also got these extra marks for scholarships, I think for Quality Education, everybody should have equal opportunities no matter what talents you have. Quality Education should explore your own potentials. Whether to join those extracurricular activities should be based on interest. It is inadequate to evaluate Quality Education based on students' own talents.

These participants identified the problem of misunderstanding Quality Education. Their incisive comments suggest that students' acquisition of more skills simply required by schools or parents should not be called Quality Education. Similarly, evaluating students' qualities by their original talents is not real Quality Education either. Quality Education should cultivate students' independent thinking and explore their own potentials, or else, it will be a *rigid* Quality Education.

Although all of the participants thought there were problems with Quality Education, nearly all of them agreed that Quality Education was necessary for China and acknowledged that Quality Education had gained some success in some aspects, such as new curriculum materials, pressure-reduction, and some encouraging results in some areas. For example, Simon and Louis identified the textbooks reform and the pressure reduction as the success that the Quality Education reform had achieved: "The textbooks have been modified better. The topics have become richer and some prose and novels

which would arouse students' interest have been added into the textbooks" (Simon). "The pressure on the students has been reduced due to the change in the evaluation system from the strict percentage grading system to level grading system" (Louis). Some participants mentioned that in some large cities, or some places where sufficient conditions were in place, Quality Education had gained some success. As Victor said, "practical abilities and comprehensive qualities of many students in some large cities have been enhanced."

In summary, according to the Chinese international students, the Quality Education reform is a necessary reform and some success has been achieved as recognized by the Chinese international students. Thus, the Quality Education reform should be pursued regardless of the complexity and difficulty there might be. However, it should also be noted that there are many problems such as superficiality and deviation from the original purpose during the implementation process of the Quality Education reform due to some objective reasons such as the unchanged exam system and some subjective reasons such as various misunderstandings. These problems themselves and the causes of the problems imply that it is the exam system, especially the UEE system that needs some fundamental changes. It also suggests that the Quality Education reform needs an educational philosophy to clarify people's misinterpretations and offer some orientation to guide its implementation. The Chinese international students emphasize that practical ability, creativity, and initiative are the major qualities of Quality Education. At the same time, these abilities are also key points in Canadian teaching as experienced by these students. It alludes to the suggestion that the Canadian teaching approach or the constructivist teaching model can offer something to the Quality Education reform.

Experiences with Constructivism

From the Chinese international students' description of Canadian education and perceptions of Quality Education in China, it can be seen that most Canadian professors are facilitating constructivist teaching fully or partly and the constructivist philosophy might guide the implementation of Quality Education in practice. Thus, I would like to present the participants' experiences with the constructivist approach in this section. First, I examine the participants' perceptions and experiences with constructivist teaching and learning in Canada. Second, I explore some constructivist teaching experiences in China with the participants exclusively from the graduate studies in education or the M.Ed. program. I use this group because they were the only ones who identified that they had experiences in teaching.

Examples with Constructivist Teaching and Learning in Canada

According to the participants' responses, all six of the participants from the M.Ed. program and another six participants from other departments confirmed they have experienced the constructivist approach or could see examples of constructivism in their learning experiences in Canada while the remaining three participants claimed they did not experience it. Among them, the participants from the M.Ed. program identified some key characteristics of Canadian education as a reflection of constructivist teaching, such as a free environment created, student or problem centered, guiding role of professors adopted, big ideas focused, open-ended questions and students-initiated questions preferred, as well as individual experiences and thinking emphasized. For example, the participants took the following as examples of their experiences with constructivist teaching and learning in Canada:

The educational philosophy here centers mostly on constructivism. The class is relaxed and free. Everyone can link his or her experiences and perceptions with the discussed topic. Professors encourage students to speak out their own answers through thinking. There are no “wrong” answers but “good” or “not good” answers. (Victor)

I remember once the professor asked us to draw a personal timeline. We wrote down those important events that influenced our career and explained to other classmates. This process, based on individual experiences, through thinking over, writing down, and telling out, is a process of knowledge construction and expression. (Judy)

For participants from other departments, I had to make a brief explanation of constructivism first because they had not learned about any of these educational theories. Confirming that they understood the definition of constructivism, six participants among them believed that they experienced constructivist teaching and learning. They mainly took examples of “big ideas,” “problem-solving,” “flexible teaching,” and “creativity development” as evidence.

For example, Simon, who has a combined major in computer science and business, took mathematics as an example: “In Canada, the professor simply teaches you some guiding theories. You come to understand the theories from basic to complex through applying them in solving some problems by yourself.” Lee, who is from graduate studies at the Department of Economics, acknowledged that “it depends on different professors; that is to say, some professors would like to be more traditional and others would like to use more flexible teaching approaches and try to develop students’ creativity.”

The remaining three participants held views different from the above six participants and also different from the six students from the M.Ed. program on this issue. For example, one participant from the Department of Economics (Lynn) did not see obvious examples of constructivist teaching but she explained that “it might depend on different departments and it might be facilitated only in small classes.” Another participant (George), who comes from the graduate program at the Department of Biology, did not say anything about constructivism since he did not spend much time in class due to the special characteristics of his program. An extremely opposite view was held by Ken:

I did not see any aspects of constructivism. How can it be possible? I think this kind of teaching aims at only those students who have strong initiative in studying. Under such a teaching model, those students with low ability in understanding can only get superficial knowledge.

However, from a review of Ken’s previous description of Canadian teaching, such as “active learning,” “students-initiated questions,” “interactive,” and “practical,” I found that he virtually experienced constructivist teaching and he supported these teaching approaches. I perceived his denial of experiencing the constructivist approach as limited understanding of the meaning of constructivism.

In summary, all of the participants from the M.Ed. program have a better understanding of the constructivist approach due to their knowledge of constructivism and most professors at the Faculty of Education are facilitating constructivist teaching. In other departments, the constructivist approach is also facilitated fully or partly. But the exceptions demonstrate that to facilitate the constructivist approach also depends on some

pertinent factors. For example, it is not very apparent in some departments where classroom lessons are infrequent or teaching is usually taken in large classes. Their experiences with constructivist teaching and learning in Canada convey that Canadian education can inform Quality Education in China in such ways as student-centeredness, initiative-development, and practical-orientation.

Experiences with Application of Constructivist Teaching in China

Some of the participants from the M.Ed. program indicated that they even had some opportunities to apply the constructivist approach in China. They identified their tendencies towards the constructivist approach such as the student-centered educational philosophy, the role of a teacher as the guide, focus on big ideas, and a supporting and encouraging classroom environment. Some of them told me that they tried it but gave up finally due to various reasons. For example, their colleagues and principals would not support their teaching approach that was different from the traditional one; students were unable to adjust themselves to the new teaching style; and fundamentally, the exam system and the evaluation system restricted the constructivist teaching approach owing to their contradiction. Christina, who was an English teacher before, presented her trial on the constructivist approach as follows:

I have read some articles on constructivism in China. I wanted to facilitate constructivist teaching in my class. But the objective exams only needed students to recite instead of understanding something really. For example, I hoped that my students could read English articles as a whole first while other teachers or leaders in our department would like to use the traditional approach. They always taught new words first, grammar points second, and then translated sentence by sentence.

I did not like this way at all. I preferred students to grasp the author's views and attitudes, catch the main idea of one paragraph, and infer what was written in the next paragraph. However, after trying for some time, I felt that students did not react warmly because this teaching method would not be very helpful to exams. Although Christina felt disappointed at her failure, Lydia enjoyed some success with constructivist teaching. She believed that teacher quality or the educational philosophy held by the teacher, and creating a student-favored environment was important.

Last summer, I went back to China and taught for three weeks. I would call it a success. I facilitated some educational philosophies that I learned here, such as "human-based teaching." Students liked it. I let students know that the new knowledge had connections with their old one. If it was "totally new," students would feel the difficulty and resist it. So the teacher should create an encouraging environment. I remembered that I praised every student no matter what they spoke. If a student came to the blackboard, I would ask the whole class to applaud for him or her. I think these practices were a kind of encouragement for students, which was what I learned here in Canada. I think it is good if the teacher has high quality and knows some advanced teaching philosophies and methods as well.

In short, from these Chinese international students' teaching experiences with the constructivist approach or philosophy in China, the constructivist approaches such as the student-centered teaching and learning, teachers as guides, and a free and open classroom environment are preferred to be used in Chinese classrooms. The failure experience tells us that the exam system and the traditional educational philosophies should be changed first, while the success experienced reveals that creating a free and open environment and

respecting and encouraging students can help to facilitate constructivist teaching.

Furthermore, both of the experiences demonstrated that Quality Education could use the constructivist approach to orient the shift of teachers' educational philosophy and its implementation in practice.

How Constructivism Informs Quality Education

In the previous sections, I presented three themes on the comparison between Chinese traditional education and Canadian education, participants' perceptions of Quality Education in China, and their experiences with constructivist teaching and learning. It was demonstrated that the constructivist approach in Canada has links to Quality Education in China and can inform the reform in China in important ways. In this section, I explore the ways in which constructivism can inform the Quality Education reform. I also examine some obstacles to the facilitation of the constructivist approach for Quality Education.

How to Inform

The participants held that there were some links between Quality Education and constructivism mainly in the aspects of the goals and focuses. Some of them believed that both approaches were opposite to traditional education and were designed to explore students' potential abilities and interests, and especially to develop their practical abilities. Specifically, Victor stated that "constructivism is a guiding theory of Quality Education, while Quality Education is the application of the theory. Quality Education is the first stage of constructivism. It will finally come to constructivism in the real sense." Some of them believed that both of constructivism and Quality Education aimed to develop students' practical abilities (Jessica, Lee, & Louis).

All of the participants believed there was something in constructivism or the Canadian system that could inform China's Quality Education or Chinese education. They valued such aspects as the emphasis of initiative-encouragement, big ideas and self-study, communicative and practical abilities, knowledge systematization, flexible and heuristic teaching, individual development, the cultivation of students' flexibility, and the educational philosophy and the evaluation system.

For example, participants had this to say about the ways in which the constructivist approach can inform the Quality Education reform in China. Nancy believed that presentation was a very good form for encouraging students' initiative. "It gives students opportunities to express their ideas and develops students' communicative, practical, and creative abilities, and even arouses their interest in computers or other things." Nancy also preferred big ideas and self-study. She said: "I would like to teach some big ideas and give students more time for self-study." Similarly, Jessica held that developing students' communicative and practical abilities were those that could be learned from constructivism. "For example, I will give students more opportunities to speak out their opinions and practice what they learn." Christina emphasized self-study and problem-centered study as following:

As an English teacher, I prefer a "task or topic-centered" approach. You could raise a question first. Take the problem of how to borrow books from the library as an example. Here, "library" is a big frame. You can ask students to think of relevant words to the library situation and ask them to imagine what will be said under such a situation, so that the students will imagine themselves in the library using the words they thought of themselves. It's not the case in China that

teachers will tell the relevant vocabulary to be used in the library first instead of asking students to imagine or search by themselves. If you provide these words to students first, you subconsciously tell them what your expectation is and then students will cater to you.

Christina's preference for topic- or problem-centered approach suggests that this teaching approach will promote students' initiative and creativity and enhance their independent study ability. This is also a reflection of the constructivist philosophy of student-centeredness.

Regarding knowledge systemization, integration and coherence, Ken emphasized that "the continual application and consolidation of knowledge is more effective instead of learning blindly as in China." Jennifer and Lee also indicated the importance of flexible and heuristic teaching. "Teachers should be flexible in their teaching methods, use various teaching methods, and give students more encouragement" (Jennifer). "The heuristic teaching style could be introduced, which will stimulate thinking" (Lee). Louis believed that individuality development should be valued. "For example, there are many specialties in Canada, such as car-repairing, silver-forging, and cooking. You have more choices than in China." Simon believed that Quality Education could learn from constructivism that students' flexibility should be cultivated. He indicated that "the Chinese have always been deprived of the rights of exploring their own talents. They have been accustomed to thinking in a fixed frame; as the saying goes, you can't draw a rectangular or circle without compasses and squares." Additionally, Julia and Victor emphasized the importance of the shift to the philosophy of constructivism instead of introducing some superficial approaches only:

I will not only use the forms but also transmit the philosophy to my students. Thus, it will influence many people by transmitting one by one. I will inform students the measurement of student evaluation, the real objective of study, and the real approach of how to study, such philosophies and psychological status, not just through the instructional design or the process of instruction. (Judy)

If I were luckily to get into the system of educational administration, I wish I could implement it in every educational level. Beginning with the understanding of constructivism as a basis, I hope the constructivist approach will result in real understanding and application and not just superficial understanding and application. Only through this way, we can solve problems fundamentally and enhance our education at a higher level. (Victor)

In summary, the constructivist approach can serve to inform Quality Education in many ways whether in specific forms or from the educational philosophy. The participants believed that Quality Education could learn from the following aspects: initiative, flexibility, individuality, practical ability, the evaluation system and the philosophy. According to most of the participants, the constructivist approach should be advocated. They indicated that constructivism is a trend of education and “how the constructivist approach can inform Quality Education is a significant topic, which is worthy of serious thoughts” (Victor). Their support for the constructivist approach suggests that the Quality Education reform in China can refer to the Canadian constructivist approach for the problems with its implementation.

Obstacles or Gaps

Regarding what would be still lacking if the constructivist teaching model or Canadian teaching were introduced to Quality Education, the participants indicated several factors or materials. Generally, these factors can be divided into objective and subjective categories. The objective factors refer to the system, funds, time and population; the subjective factors are related to the philosophy, schools, teachers and students.

Objective factors: system, funds, time and population.

First, as most of the participants mentioned earlier about the problems with Quality Education, the exam system was a big and fundamental problem. Since the Quality Education reform is a shift from exam-oriented education, the reform will always remain on the surface level unless the exam system and evaluation system are changed from the foundation. For example, Christina indicated that “if the fact of standardized exams as student performance evaluation is not changed, Quality Education will become a slogan and will never be achieved.” Lydia elaborated on the restriction of the exam system:

China’s educational system is “exam focused” and depends on “standardized testing,” which requires teachers to think of it when teaching. Teaching must be kept in accordance with it since the purpose of “standardized tests” is to “test learning outcome.” If the teaching does not accord to this “standard,” it will not function. In China, Quality Education is in conflict with the exam system.

Second, education cannot be separated from economics, while in China, a developing country, the investment in education is always a problem. Some participants realized this problem and indicated that conducting Quality Education had to solve that economic

problem first since a lot of children were even unable to get into schools in many disadvantaged areas, as Louis pointed out: “Some towns or villages lack the most fundamental conditions, such as books and chairs. How can Quality Education be conducted in these places”?

Third, a large-scale reform or change will take a long time to achieve the goals. Most of the participants realized it was apparent that Quality Education needed time to achieve. For example, George indicated that “it needs time. For such a large reform, you can’t change immediately.” “To achieve the complete shift needs dozens of years and even hundreds of years,” said Louis.

Finally, aside from the time, some participants also related the problems to China’s large population. As Lydia said, “another problem is that China is so big that to popularize Quality Education needs dozens of years at least.”

In general, the participants suggest that first, the exam system and the evaluation system have to be changed fundamentally or else the Quality Education reform will not bring concrete changes to education in China. The participants also indicated other objective factors such as funds, time and population. Their concerns about the funding imply that although the funding investment in education needs to be expanded, the basic economic problems in most areas require the overall development of Chinese economics as a prerequisite of expansion of investment in education. Since a long time period is inevitable for the implementation of all educational reforms, especially the large-scale ones, teachers or educational administrators should not go in haste to gain achievement in a short term. If it is that case, the reform might easily fall into a faddism with superficiality and deviation. The large population also poses a problem to the

implementation of the Chinese educational reform as it does to nearly all aspects in China. In other words, it is really difficult and complex to make a change against the deep-rooted traditional educational philosophy and system on such a large scale.

Subjective factors: philosophy, administrators, principals, teachers and students.

First, the participants identified the shift of educational philosophy as a necessary and fundamental problem. Victor believed that:

The change of educational philosophy is important and necessary. Although to enhance all teachers and students' understandings to a high level is a very difficult task, it is necessary and this is what we have to do. I think this is the biggest problem confronting us.

Second, those people who are closest to the implementation of Quality Education, i.e., educational administrators, principals, teachers and students are the factors that will directly influence the result of the implementation of Quality Education. From my field notes, I found that those participants who mentioned these factors were mainly those students from the graduate studies in education or the M.Ed. program. Since these students had at least one year of teaching experience in China, they might have more thoughts and feelings on these factors which were closely related to their career.

At the administrative level, educational administrators and principals' decisions and their own educational philosophies directly affect the teaching orientation. For example, Jessica and Lydia had this to say about the obstacles of Quality Education. Jessica indicated that "the governmental administration have too much power to restrict and influence education, which would certainly influence the application of the constructivist theories in class." Similarly, Lydia also indicated that "most principals in

China are not teachers. They do not understand students and teachers. They also have too much pressure from their superiors.”

Teacher quality is a hotly debated issue everywhere in education. Some participants indicated that enhancing the qualities of teachers was very important for Quality Education. For example, Lydia and Lee emphasized the important role of teacher quality during the implementation process of the Quality Education reform. Lydia eloquently indicated that “The real difficulty is how to enhance the qualities of teachers. All kids are good. They are blank books when entering schools. What and how we write is the key.” Lee also indicated that “The qualities of teachers are not high enough. We must have some teachers who can stimulate students’ thinking” (Lee).

Some participants believed that students probably would not feel accustomed to constructivist teaching or Quality Education at the beginning. “Years of learning under the traditional educational system in China make them unable to adjust themselves to these new teaching approaches” (Jessica). With three years of teaching experience in English as a foreign language in China, Jennifer elaborated on this idea and made some suggestions:

Students might not understand you and not be accustomed to working without context. Take the English lesson as an example, students might think why they need to do group discussion in English since they never do it before. They might not be interested in it and the discussion might turn from English to Chinese. I suggest having students do story-telling or debate on what they read in English instead of asking them to discuss something too abstruse or theoretical.

Therefore, from these subjective factors, it is suggested by the participants that the Quality Education reform needs a new educational philosophy to replace the traditional one or else the reform will stay on the surface level. It is also implied that the situation of too much control and pressure from educational administrators should be changed and principals should consider the teachers, particularly. The participants also indicated that teachers should enhance their own qualities, especially those required by Quality Education. Furthermore, students also need time to adjust themselves to the new teaching style and educational system.

In conclusion, first, from the comparison between Chinese education and Canadian education, the negative attitude of the Chinese international students towards their educational experiences in China has some implications for the Quality Education reform in China. As has been demonstrated, the difference between these two educational systems corresponds with the contrast between the traditional or transmission philosophy and the constructivist philosophy. Second, these students' understandings and concerns of the Quality Education reform in China reveal many problems during its implementation process. Third, the participants' experiences with the constructivist teaching and learning in Canada and China convey that constructivist approach is facilitated fully or partly in the Canadian university and the constructivist philosophy can be helpful to the Quality Education reform in China. Finally, these Chinese international students provided some ways describing how the constructivist approach can inform the Quality Education reform in China, while indicating some barriers as system, funds, time, population, philosophy, educational administrators, principals, teachers, and students. These barriers

also indirectly reveal that the constructivist approach can be used as a means to provide some orientation to guide and solve some of these problems.

CHAPTER V

DISCUSSION AND CONCLUSION

This study has explored a select group of Chinese international students' perceptions of the Quality Education reform in China and a constructivist approach in Canada. Through examining their comparison of Chinese education and Canadian education, concerns about the Quality Education reform, and experiences with the constructivist approach, I explored the ways in which the constructivist approach in Canada informs the Quality Education reform in China.

A review of the literature on the Quality Education reform in China reveals numerous problems with the implementation of the reform in practice. Although these problems, such as confusions and superficiality are usually taking place as claimed by ample research on educational change or reform, there is still much that can be done. According to suggestions of research in China and my own experiences as an international student in Canada, the constructivist philosophy or approach might have some links to the Quality Education reform in China and guide its implementation as well. The unique characteristics of the group of Chinese international students who have experienced the two educational systems may help us to better understand the ongoing educational reform and its implementation. It is demonstrated according to these Chinese international students that the constructivist approach in Canada can offer some orientation to the Quality Education reform in China.

Whether from the literature or from the participants' comments, it is unquestionable there are many problems in the implementation of the Quality Education reform, such as misinterpretation, superficiality and deviation largely due to both

objective and subjective factors, i.e., the unchanged exam system or evaluation system and people's traditional educational philosophy. Take superficiality as an example, Jiang (2001) indicated that the Quality Education reform policy was publicized perfunctorily in some schools instead of being changed into some particular applicable methods. Most participants indicated that the goals of Quality Education could not be achieved unless there were some changes in the essence of the UEE. Similarly in the review of the literature, many educational researchers contended that the negative influence brought by the UEE system would perplex the implementation of Quality Education all the way unless the system had been reformed from ground up (Hu & Wang, 2001; Yang, 2002). Regarding the subjective factor, the traditional educational philosophy has resulted in various misunderstandings, which cause the implementation of the Quality Education reform to remain on the surface and even to deviate from the original purpose. From these problems themselves and the causes of the problems, the Quality Education reform needs an educational philosophy to clarify people's misinterpretations and offer some orientation to guide its implementation.

Regarding the problems during the implementation process of the Quality Education reform, the Chinese international students agree that the constructivist approach in Canada should be advocated and has something to offer to the reform. Based on the students' experiences with the constructivist approach in Canada and China and their own perceptions of constructivism, it conveys that constructivism can inform Quality Education in China in such aspects of learning environment, the role of teacher, teaching approach, teaching content, the evaluation system, and the overall educational philosophy.

First, since the Chinese international students prefer to study under a free and open environment rather than a rigid and closed one, it suggests that Quality Education should try to create such a learning environment to cater to its students. These students believe that students can obtain knowledge in a better way under a relaxed or pressure-free environment. Similarly, Zhang (2000a) claimed that it was important to create a good environment which was beneficial for students' experience and feeling since emotion, attitude, interest and belief were important in the process of obtaining knowledge. At the same time, Milbrandt, Felts, Richards, and Abghari (2004) contended that one of the guidelines for successful constructivist teaching was to "develop a flexible classroom climate that encourages student inquiry and discussion" (p. 23). Since one of Quality Education's focuses is on cultivating students' initiative, a free and open environment should be a prerequisite for the implementation of Quality Education.

Second, to promote Quality Education, a more equal relationship between teachers and students should be established and teachers should act more as a guide not a teller. Milbrandt, et al. (2004) claimed that since the constructivist approach was more student-centered than the traditional approach, the role of the teacher-as-facilitator is critical to student success. Xiang (2002) held that more respect for students was required by Quality Education. According to the Chinese international students, it reveals that teachers as the guide and more opportunities provided for students' self-study can encourage their initiative, independent thinking ability, and creativity as they experienced. Therefore, the more equal relationship between teachers and students, or shared responsibility between them should be advocated to promote the Quality Education reform.

Third, flexible, interactive, and holistic teaching approaches should be facilitated to arouse students' internal interest in study and deepen students' understanding of knowledge. These approaches are actually exactly used in a constructivist classroom. As Glickman, et al. (2004) indicated, flexible teaching methods, students-initiated questions, and big ideas are characteristics of constructivist teaching. The Chinese international students favored these teaching approaches and suggested that these could be introduced to Chinese classrooms to promote the Quality Education reform since students' initiative, creativity, and knowledge systematization could be enhanced through these approaches.

Fourth, teaching should be practice-focused and constant knowledge-application should be emphasized to develop students' practical and flexible abilities. As suggested by the international students, students' great success in academics does not mean strong practical abilities and usually is the opposite case. The problem-based teaching model is proved by these students as efficient to enhance their practical abilities as well as advocated in Liu's (2002) research to support the link between the constructivist model and the Quality Education reform. Furthermore, Hirumi (2002) indicated that "with the increasing complexity and rate of change, self-directed learning and problem-solving become vital, along with interpersonal and team skills" (p. 499).

Fifth, the traditional exam system or the evaluation system should be more flexible, comprehensive and practice-oriented. Flexible and comprehensive are the evident characteristics of the evaluation system under the constructivist philosophy (Glickman, et al., 2004). There is ample research indicating that the Chinese traditional exam system, especially the UEE system was the origin of all problems with the implementation of the Quality Education reform (Hu, 2001; Hu & Wang, 2001; Yang,

2002). The Chinese international students also suggest that the evaluation system will impede the Quality Education reform and brought many problems, such as superficiality, unless the system was changed fundamentally. Some research on educational change also suggested that the government should provide system support to sustain the implementation of educational reforms, which was very important but at the same time was often ignored by the government (Fullan, 2001; Levin, 2001). From these Chinese international students' experiences with the Canadian exam system or its evaluation system, flexible and practice-focused testing in exams, and various and comprehensive evaluation forms, can stimulate students' initiative in study, promote students' flexible thinking, and enhance their practical abilities. I believe only after the fundamental change is made in the exam system or the evaluation system, can the outside pressure on students be internalized and the Quality Education reform be put forward.

Finally, the student-centeredness of the constructivist philosophy should be regarded as the central guiding philosophy of the Quality Education reform. "The heart of the constructivist approach to education is the understanding that students are in control of their own learning" (Milbrandt, et al., 2004, p. 19). Hirumi (2002) also advocated the student-centered approach as a facilitator of knowledge construction and development of life-long learners. This is what Quality Education pursues. On the other hand, lack of clarity is always a major problem as claimed in most of research on educational change (Fullan, 2001; Levin, 2001). A lot of research in China also demonstrated that confusions and misunderstandings of Quality Education are very common at present (Hu & Wang, 2001; Jiang, 2001). For example, Zhang (2000a) indicated that even though the Chinese people began to emphasize creative ability, the education did not realize that developing

students' sense of creativity should be the focus. Some of the Chinese international students also recognize that the implementation of the Quality Education reform should be focused on the philosophy not simply on forms. From their comparison between Chinese education and Canadian education, I capture the student-centered educational philosophy, which is the focus of constructivism, as the key difference between these two systems. I suggest the student-centeredness should be regarded as a guiding ideology of the Quality Education reform in China.

In conclusion, as Fullan (2001) has indicated, many attempts at policy and program change have concentrated on product development, legislation, and other on-paper changes in a way that ignored the fact that what people did and did not do was the crucial variable. Therefore we should recognize and take the problems seriously also experienced by the educators and all the society during the implementation process of the Quality Education reform. This study reveals the following ways in which the constructivist approach in Canada can inform the Quality Education reform in China:

- Teachers should create a free, open, safe and encouraging classroom environment for students.
- Teacher needs to learn to play a more equal and guiding role to motivate students' initiative and creativity.
- Teachers should adopt flexible, interactive and holistic teaching to arouse students' internal interest in study and deepen students' understanding of knowledge.
- Teaching should be practice-focused and constant knowledge-application should be emphasized to develop students' practical and flexible abilities.

- The government should make a fundamental change on the traditional exam system or the evaluation system, i.e., to make it more flexible, comprehensive and practice-oriented.
- The student-centeredness of the constructivist philosophy should be regarded as the central guiding philosophy of the Quality Education reform.

All in all, implementing Quality Education is a large and in-depth educational reform in China. It is a significant systematic project which influences profoundly and involves every aspect of the society (CCCPC & the State Council, 1999). To conduct such a large-scale reform against a deep-rooted traditional educational philosophy in such a big country, a lot of problems, especially complex ones, will occur inevitably during this process. Since we cannot avoid the problems, we should face them courageously, get to know them and learn from them. We should be patient to spend our time and energy consistently instead of falling into a faddism. At the same time, although I suggest using the constructivist philosophy to guide the Quality Education reform, we have to acknowledge that there never will be a definitive theory of change (Fullan, 1999) due to the complexity of the reform and particular problems in different situations. Regardless of these difficulties, however, we should remember “it is essential to be hopeful when things are not rosy” (Hargreaves & Fullan, 1998) and persist on the route of the Quality Education reform.

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APPENDIX A
INTERVIEW GUIDE

The following were the sample questions I asked each participant in the first group:

1. What are your first and general impressions and feelings of your previous learning experiences based on traditional teaching methods in China?
2. How is your learning here in Canada different from that in China? (I would suggest the participants to answer in these following aspects.)
 - Classroom atmosphere or environment
 - Relationship of teachers to students
 - Teaching approach
 - Teaching content
 - Evaluation system of students
3. How do you make sense of the Quality Education in China?
4. What do you think of the implementation of the Quality Education reform?
5. Are you clear with the constructivist theories? If yes, have you experienced any aspects of constructivism in your learning here in Canada? (If not, I would make a brief explanation.)
6. Is there some relationship existing between Quality Education and constructivist teaching? In what ways?
7. Have you ever applied the constructivist approach in your own teaching and how?
8. In what ways do you think the constructivist approach here in Canada can

inform Quality Education in China?

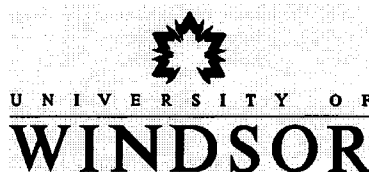
9. What other factors or materials will you need if you go back to China to apply the constructivist approach?

For the second group, the questions were slightly different from those asked of the first group because the second group members did not have teaching experiences and had not learned the theories of constructivism. I would not ask them about teaching experiences and would explain constructivism to them briefly. The following were the sample questions I asked the members of the second group:

1. What would you describe your initial feelings of your education in China?
2. What is the difference between your learning in China and that in Canada? (I would suggest the participants to answer in these following aspects.)
 - Classroom atmosphere or environment
 - Relationship of teachers to students
 - Teaching approach
 - Teaching content
 - Evaluation system of students
3. What is your own understanding of Quality Education in China?
4. Are there any problems in the implementation of the Quality Education reform? What?
5. (I first briefly explained the theories of constructivism and constructivist teaching and learning to them.) Could you find me an example of a constructivist approach in your class in Canada?
6. Is constructivism related to Quality Education in China? If yes, in what ways?

7. What aspects of your learning here would you like to take back to China for Chinese education?
8. To introduce your experiences to China's Quality Education, what other factors or materials do you think are still lacking or are a hindrance?

APPENDIX B



LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Exploring Chinese International Students' Understanding of Quality Education in China and a Constructivist Approach in Canada

You are asked to participate in a research study conducted by **Haixin Liu**, from the **Faculty of Education** at the University of Windsor. **Results will contribute to her Master's thesis project.**

If you have any questions or concerns about the research, please feel to contact **Dr. Andrew Allen** at **XXX-XXXX ext. XXXX**.

PURPOSE OF THE STUDY

"Quality education" reform, a broad and in-depth educational reform in China, was initiated in 1999 by the Chinese government to produce well-rounded students with individuality and practical skills (CCCPC & the State Council, 1999), while constructivism holds that knowledge is created when people encounter new ideas, problems, or experiences, which interact with their existing knowledge, beliefs, and values (Glickman, Gordon, & Ross-Gordon, 2004).

After I came to Canada for my studies, I have met some professors identifying themselves as constructivists and are facilitating constructivist teaching. Since many Chinese international students like myself have experienced the educational philosophy here in Canada, the purpose of this study is to explore the perceptions and the concerns of Chinese international students at a Canadian university about the ongoing "Quality Education" reform in China and the different educational philosophies between China and Canada. Through their learning and/or teaching experiences in China and learning experiences in Canada, I will examine the difference between these two educational systems and the links between "Quality Education" and constructivism. I want to find out some possibilities of how to implement the educational reform in practice and how constructivism can offer some orientations for teachers on how to achieve the goals of the reform.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

1. **Read and sign the consent form.**
2. **Attend a one-on-one interview with the investigator (half an hour).**
3. **Check the accuracy of the data provided by you or related to you through emails sent out by the investigator.**

POTENTIAL RISKS AND DISCOMFORTS

There are no known risks involved with this project.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participants could have a better understanding of themselves as international students in Canada and be more aware of the difference existing between the teaching style in China and that in Canada, which might help them adjust themselves better to studies in Canada.

For those prospective teachers after their graduation, the results and discussion of this project might provide them with a better understanding of "Quality Education" in China and give them some orientations on how to implement "quality education" in their future teaching in China.

From Chinese international students' own understanding and concerns about "Quality Education," this study could give the educational administrators and the educators in China some new perspectives on this ongoing reform.

This project could provide professors in Canadian universities with a better understanding of the educational background of Chinese international students, which can contribute to their teaching with those students.

PAYMENT FOR PARTICIPATION

Participants will not be paid for attending the project.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

All interview transcripts will be given to the interviewees for verification. Audio tapes used in this project will be kept in a secure place and all data collection will be held for a maximum of two years.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time and have the option of removing the data that you provided without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

I will inform participants the copy of the study can be borrowed and read from the Leddy Library, University of Windsor. The result of the study will also be posted on the website of Research Ethic Board of University of Windsor, www.uwindsor.ca/REB.

SUBSEQUENT USE OF DATA

This data will not be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. This study has been reviewed and received ethics clearance through the University of Windsor Research Ethics Board. If you have questions regarding your rights as a research subject, contact:

Research Ethics Coordinator
University of Windsor
Windsor, Ontario
N9B 3P4

Telephone: 519-253-3000, ext. 3916
E-mail: lbunn@uwindsor.ca

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

APPENDIX C



CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Exploring Chinese International Students' Understanding of Quality Education in China and a Constructivist Approach in Canada

You are asked to participate in a research study conducted by Haixin Liu, from the Faculty of Education at the University of Windsor. Results will contribute to her Master's thesis project.

If you have any questions or concerns about the research, please feel to contact Dr. Andrew Allen at XXX-XXXX ext. XXXX.

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"Quality education" reform, a broad and in-depth educational reform in China, was initiated in 1999 by the Chinese government to produce well-rounded students with individuality and practical skills (CCCPC & the State Council, 1999), while constructivism holds that knowledge is created when people encounter new ideas, problems, or experiences, which interact with their existing knowledge, beliefs, and values (Glickman, Gordon, & Ross-Gordon, 2004).

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PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

4. Read and sign the consent form.
5. Attend a one-on-one interview with the investigator (half an hour).
6. Check the accuracy of the data provided by you or related to you through emails sent out by the investigator.

POTENTIAL RISKS AND DISCOMFORTS

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POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participants could have a better understanding of themselves as international students in Canada and be more aware of the difference existing between the teaching style in China and that in Canada, which might help them adjust themselves better to studies in Canada.

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This project could provide professors in Canadian universities with a better understanding of the educational background of Chinese international students, which can contribute to their teaching with those students.

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Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

All interview transcripts will be given to the interviewees for verification. Audio tapes used in this project will be kept in a secure place and all data collection will be held for a maximum of two years.

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FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

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Research Ethics Coordinator
University of Windsor
Windsor, Ontario
N9B 3P4

Telephone: 519-253-3000, ext. 3916
E-mail: lbunn@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study **Exploring Chinese International Students' Understanding of Quality Education in China and a Constructivist Approach in Canada** as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject

Signature of Subject

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

VITA AUCTORIS

I received my Bachelor of Arts in English Education at Sichuan Normal University in China in 2002. I also have one year of teaching experience in Rongxian No. 1 Middle School in China as a high school teacher, teaching English as a second language. I have experienced both the traditional educational system and the ongoing Quality Education reform, which began in 1999. Furthermore, I have over one year of study experience as a Master of Education candidate, majoring in educational administration at a Canadian university. All these learning and teaching experiences and the educational theories that I have learned from the universities have enabled me to be well prepared for this study.