Educational Development in Western China

Towards Quality and Equity

John Chi-Kin Lee, Zeyuan Yu, Xianhan Huang and Edmond Hau-Fai Law (Eds.)

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Towards Quality and Equity

INTRODUCTION

Education in China as a vast and fast-growing country has attracted international attention. In 2000, the "Western Development" plan which covers six provinces (Gansu, Guizhou, Qinghai, Shaanxi, Sichuan, and Yunnan), five autonomous regions (Guangxi, Inner Mongolia, Ningxia, Tibet, and Xinjiang), and one municipality (Chongqing) began.[1] Around that period, the Chinese government has also launched the basic curriculum and senior secondary school curriculum reforms which call for a fundamental and large-scale systemic change in achieving quality education (*sushi jiaoyu*) across the country. With increasing resources for expanding educational access, there remain issues of quality and qualitative disparities across China. Many published works, however, tend to refer to examples from the developed, Eastern part of China. This book focuses on recent educational development and related issues in less developed, western part of China which display the significance of ethnic diversity, urban-rural disparity and variations in school development. In addition, there have been entrenched problems of teacher and teaching quality, resources inadequacy and left behind children.

Under the context of educational and curriculum reform, there has been a quest for enhancing quality in teaching and learning as well as teacher and school development. At the same time, the "National Outline for Medium and Long-term Education Reform and Development" (2010–2020) highlighted the importance of the principles such as education development as a strategic priority, cultivation of people as the bottom line, quality improvement as the core task and equal access to education.

As regards equity in education, China has been active in allocating more resources in rural areas, outlying poor areas and regions inhabited by ethnic-minority groups, building boarding schools in Western China's rural areas, introducing modern distance education for elementary and middle in rural China and renovating junior middle schools in Central and Western China as well as implementing the Plan for Special Education in Central and Western China.[2]

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 1–20.

Status and Quality of Education in Western China

It is indeed to define clearly the notion and measures of quality in education. In many literature, despite its limitations, educational quality is also measured as outcomes which are often referred to students' examination or test scores (Liu et al., 2009, p. 470). However, quality of education could be defined from a multiple perspectives and at different levels (e.g., national, school and classroom levels) and with different indicators (e.g., Scheerens, 2011) ranging from inputs (e.g., student background, provision of financial, human and material resources), context (e.g., cultural aspects of the educational system), processes (e.g., number of formally qualified teachers; and outcomes (e.g., student attainment and drop-outs).

The Social Sciences Academic Press (China) has published the *Report on Development in Western China* (2013, 2014). In general, basic education has reached the stage from universalization of nine-year compulsory education to consolidation and quality enhancement. At the beginning of the twentieth century, the Chinese government launched the "Plan of Two Basics Action in Western region of China"《國家西部地區"兩基" 攻堅計劃(2004–2007)》, there had been measures such as the construction of boarding schools in rural villages, "two remissions/ waivers and one subsidy" "兩免一補" (involving the remission of miscellaneous and textbook fees and the subsidy for boarding students) and new mechanisms for protecting funds for rural basic education, the Project of Modern Distance Education in Rural Elementary and Junior Secondary Schools in facilitating rural children's access to education resources through a distance education network as well as establishment of rural teacher workforce in western rural villages. By the end of 2010, more than 2800 counties (cities and prefectures) across the nation of China including the western China has achieved the 100% targets of "two basics" "兩基" population which means "basically universalizing compulsory education and basically eradicating illiteracy among young and middle-aged groups" (Ministry of Education, the People's Republic of China (September 11, 2009); Ji, 2013, pp. 301–302; Li & Liu, 2014, p. 54; Yi et al., 2012, p. 556).

Issues of Education in Western China: Lacking Educational Quality and Existing Inequality

Despite significant progress has been made in educational investments and attainments in China, there remains some inequalities in education. Yang, Huang, and Liu (2014, p. 4) used decomposition results of Gini coefficient to analyze China's national and provincial education inequality and "from 1996 to 2008, education inequality in Tibet, Qinghai and Gansu has decreased 28.87%, 37.5% and 26.73% respectively, but such indices for Beijing, Shanghai and Tianjin are only 20.2%, 14.74% and 16.72%". This suggested that while gaps between the Eastern and Western regions still existed, there was a general reduction of educational inequality. However, the

results showed that the factors of urban-rural divide and social stratification division contributed to inequalities.

Another study using the fully modified ordinary least-squares (FMOLS) method for analyzing the data of thirty provinces in eastern, central and western China found that educational investment has narrowed the income gaps in eastern and central regions but has increased the gap between urban and rural areas in the western region (Liu & Liu, 2013).

For the urban and rural discrepancy, the cities and urban areas tend to enjoy greater development and have schools with better qualified teachers and modern equipment than rural areas. In addition, the division of urban and rural households system (hukou status) tends to generate more incentives and attraction for people to register in urban/city household which has led to rural areas somewhat disadvantaged regarding the provision of quality education and educational attainments. As regards social stratification related to income, families with better socio-economic background and higher income tends to provide their children with better education (Yang, Huang, & Liu, 2014, pp. 8–9).

A study based on the Gansu Survey of Children and Families (Cherng & Hannum, 2013) in 20 rural counties showed that parental educational expectations and their resources support in terms of having a desk and many books for children at home had a positive influence on students' participation in high school (zhongkao) and college entrance examinations (gaokao) in rural northwest China. However, the influence of family wealth only became somewhat insignificant for those senior secondary students who took the college entrance examinations (Sargent, Kong, & Zhang, 2014, p. 108). This implies that more works might be to be done for parental education and support for children's study.

In terms of access to education for ethnic minority students, there have been interactions among issues of "social equality, economic development, cultural autonomy, and national unity" (Postiglione, 2007, p. 99). Using the Tibet as an example, if ethnic minority families perceived a good chance of economic success and enhancement of their status with school participation, there would be a high likelihood of school attendance of their children (Postiglione, 2007, p. 111). The findings of Zhang's (2014) study from eleven western provinces in China corroborated that despite the "two remissions/waivers and one subsidy" policy has been implemented, students' families still have to bear other fees and costs of schooling such as textbooks, boarding and other informal fees. This might be attributed to the lower schoool attendance and higher dropouts from poorer families compared with richer households. In addition, low-income to middle-income families, which need to shoulder financial burden for their children to get better education, might fall into a new poverty trap because their children might not get a job with better income or economic return. Another study in four counties in two provinces in North and Northwest China found that financial reasons (such as relatively high indirect cost, high medical cost due to families with unhealthy parents or increasing opportunity

cost for poor families) and poor academic performance of students might affect the dropouts (Yi et al., 2012). The study conducted from 100 rural villages in Gansu by Hannum, Liu and Frongillo (2014) underscores the situation that children from poor households tended to suffer from poor nutrition and food insecurity which was associated with lower literacy scores.

For dropouts in upper secondary vocational schools, Yao, Yi and others' study (2013) in two provinces (Shaanxi & Zhejiang) found that the dropout rates of technical and vocational education and training (TVET) schools in Shaanxi ranged from 10% to 22% while their counterparts had only between 3% and 12% (p. 12). The results also indicated that while financial constraints did not have an association with dropouts, lacking maternal education and students with low achievement in technical skills tended to have a propensity to drop out (pp. 18–19).

In a recent survey related to the XiaoKang Index of Chinese Education, the respondents from the western part of China perceived that compulsory, basic education was still the most significant problem in education in western China. The ten problems in western rural education were as follows: Poor school hardware conditions; shortage of goverment funds on education; small educational inputs from the government; shortage of teacher; parents not attaching importance to education; small number of schools; related government officials not emphasising education; poor effect of large class teaching; and children not fonding to learn. In addition, there were two deficiencies and three "nos" for left-behand children before school-entry age which were lacking home education and missing family love as well as unsociable, unable to keep pace with learning and mentally unhealthy (Pan & Wu, 2013, p. 63).

Urban and rural disparity remains a challenging issue for educational development in western China. Even taking the more developed municipality of Chongqing as an example, a study of over one thousand teachers and around two hundred principals revealed that urban teachers tended to have a degree qualification while their rural colleagues mostly were non-graduates. Access to external intellectual resources by teachers also displayed a significant differences between urban and key-point schools and rural and ordinary schools It is therefore important for local governments to facilitate the provision of more specialist and quality teachers and enhance the infrastructure and resources for rural schools (Jin et al., 2013, pp. 54–55).

One of the educational problems associated with rural areas is the phenomenon of left-behind children (LBC) who have their parents working in other places (often cities) and are taken care of by one of their parents or relatives. One study on western China showed that children left behind and were taken care of by their father (while their mothers worked away from home) had the weaker performance in academic self-concept, teacher-student relationship and attitudes towards the school compared with their counterparts with different conditions of children left (Yao & Mao, 2008). This phenomenon has also created pressure for cities such as Chongqing where it has a high percentage of rural LBC of the rural children all over China. Four kinds of models ranging from care model (provision of material or spiritual support), society

support model (provision of long term and stable support), rural school education (provision of resources to rural schools), community model (using a bottom-up approach), and policies support and empowerment model (protecting LBC rights and introducing household registration reform) have been adopted to cope with the LBC issue (Beh & Yao, 2012, pp. 167, 176–178). Another study in other rural areas of China found that parental migration might not provide a clear advantage for the educational prospects of their left behind children. Instead there could be negative impact especially for young children and in particular, the disruptive effect "was also greater when their mother rather than the father migrated, which is what one would expect given China's patrilineal tradition that stresses the role of mothers in caregiving" (Lu, 2012, pp. 338–339).

Rural education remains one of the acute challenges among educational issues in western China. The research by Wang and Li (2009, pp. 86, 88) revealed that there existed some discrepancies in the teaching quality of compulsory education between the rural and urban schools in the western region. In particular, teaching quality at grade two in rural areas was not satisfactory and there were some differences in the quality of teaching between the urban and rural junior high schools as well as a higher drop-out rate and lower graduation rate in rural primary and high schools (pp. 86, 88). This might be related to the lack of technical titles, mismatch of teachers' majors with their teaching subject and insufficient attention to teaching research and professional development of teachers in rural schools.

This entrenched problem of rural education was partly exacerbated by the decentralized fiscal system in 1994 which made the central government acquire more revenues while the township government has less financial power. This has generated on one hand more financial burden shouldered by the lower level township and county governments and on the other hand more funds being allocated to higher education and urban compulsory education at city-level government than rural compulsory education (Wang, 2003, pp. 10–11). Another problem were related to rural taxation reform leading to reduced funds for rural education which has higher operation costs because of sparse student population distributed over a wide territory. Other problems include income disparity between urban and rural areas leading to drain of qualified teachers, shortage of bilingual teachers for ethnic minority children as well as teaching content deviated from the reality in rural areas (Liu, 2005, p. 25). In 2006/2007, the central government enhanced transfers to education in rural and western regions which helped relieve poor township governments and rural household from shouldering less financial burdens (Liu et al., 2009, p. 465). Moreover, with the emphasis on "to the county" (yi xian wei zhu) model for fiscal de/centralization, the impact on educational performance sometimes hinged on the dynamics and balance of autonomy and interference between the township, county governments and other local interest groups (Liu et al., 2009, p. 472).

The western part of China has a lot of ethnic minorities and implementation of bilingual education for ethnic minorities has been an important issue. Postiglione

(2014, p. 36) provides a succinct summary of some studies on ethnic minority responses to school environments in China:

> A common concern in all of these studies is about how critical pluralism is addressed in education, including…how minorities become marginalized by a lack of cultural recognition in university; how ethnic migrants experience double discrimination in urban schools; how minority students balance ethnic and national identities;…and how rural minorities make rational decisions about keeping their children in schools.

Different provinces such as the Sichuan Province implemented educational action plans for minorities in 2001 for ten years and the Tibetan areas have provided support for bilingual education. While many achievements have been made, there are still some physical, cultural, economic and seasonal constraints as well as entrenched challenges in Tibet such as high outflow of talents and teaching staff, acute shortage bilingual teachers particularly for school subjects of history, geography, politics and sciences, inadequate exposure to Mandarin Chinese before entering primary schools, insufficient skills and knowledge of Mandarin Chinese as a medium of learning and special irregular student mobility (Li & Liu, 2014, pp. 54–55). Using Lhasa as an example, a study showed that while schools in urban, rural and pastoral areas did not vary significantly in the usage of explanation and practice methods in bilingual teaching, schools in urban and pastoral areas differed in their teaching methods and urban teachers tended to adopt more frequently the discovery method as a kind of inquiry-based methods than their counterparts in pastoral areas. Likewise, students in urban schools tended to have more frequent opportunities to experience self-regulated learning, co-operative learning and inquiry learning approaches than their counterparts in pastoral areas (Wang & Wang, 2013, pp. 104–107).

The Chinese government has launched the new basic curriculum reform since 2001 and there has been achievements made on the changing practices in school-based curriculum development and classroom pedagogy (Lee, 2011). In a study of new curriculum implementation in five provinces of western China (Yunnan, Guizhou, Sichuan, Chongqing and Guanxi), Wang Biao (2013)'s study showed some remarkable progress in diversified school-based curriculum development (SBCD) but there existed provincial differences in the level of implementation as well as principals' and teachers' perceptions of curriculum implementation. For example, about 60% of principals responded that their schools had formulated the plan for implementing school-based curriculum while only about 30% of teachers reported that they had participated in SBCD. From the teachers' perspective, Sichuan and Guangxi had higher percentages (about 55% and 45% respectively) while Yunnan, Chongqing and Guizhou provinces revealed lower percentages (about 35%, 25% and 19% respectively) (Wang, 2013, p. 173). Compared with the progress in basic education, new curriculum implementation at the senior secondary level started rather late. The overall curriculum development in western China was also affected

by the diversity of school conditions, shortage of funds and quality rural teachers (pp. 174–179).

A study on a county in Linxia Hui Autonomous Prefecture, Gansu Province revealed that while teachers showed a high level of self-efficacy and work commitment, their traditional practices prevailed and the ideals of curriculum reform had not been fully implemented. This called for an enhancement of teacher development through school-based research, building up effective classroom through education informatization (Li, 2013).

In rural China, a qualitative study in rural primary schools in six different rural counties across China indicated that four broad categories capturing the reform implementation and teacher conceptions of teaching and learning could be identified: "old curriculum, no influence", "old curriculum, surface influence", "new curriculum, surface influence" and "new curriculum, progressive" (Sargent, 2012, p. 209). It was noted that "new curriculum, progressive" teachers tended to embrace the essence of new curriculum reform, conducted student-centred and varied classroom practices as well as made efforts to stimulate student inquiry and their expression (pp. 218–221). These results suggest that future professional development of teachers might to need to heed teachers' beliefs and conceptions.

As regards classroom climate, another study based on the Gansu Survey of Children and Families (waves 1 and 2 in 2000 and 2004 respectively) found that 40% of middle school students in the survey encountered physical victimization. It was further notable that higher risks of physical victimization tended to be associated with male students, students who have prior poor performance or previous internalizing problems, students taught by female or low performing teachers as well as students studying in disruptive classrooms or classrooms undergoing curricular reforms (Adams & Hannum, 2012, p. 1). Another study on teacher-student relationship in Yunnan Province found that students of schools in dam areas, which were close to the cities, differed from and had greater emotional distance as compared with, their counterparts in urban and hilly areas. In addition, male students had more emotional disturbance and distance than the female students (Zhang, Xie, Ju, & Lv, 2013, pp. 103–104). These results suggested that enhancement is needed for pre-service or in-service rural teachers to gear up their classroom management skills under the requirements of New Curriculum Reform.

Regional disparities occur in many levels or sectors of education in China. Taking early childhood education for illustration, a study using cluster analysis found that there were three tiers in the preschool educational development. The first tier was exemplified by Beijing and Shanghai while the second tier comprised twelve provinces and municipalities such as Shandong, Guangdong as well as Sichuan and Chongqing in western China. The third tier, consisting of 17 provinces and autonomous regions, are mostly located in western China. The preschool education in tier three showed that while student-to-teacher ratio tended to be higher, the gross preschool enrollment rate tended to be lower than those in other two tiers. Two exceptions, however, were detected with the pre child preschool educational

spending index being higher in tiers 1 and 3 than in tier 2. In addition, the percentage of preschool teachers with a college diploma or above (79%) was higher in tier three than that tier two (66%) but lower than that in tier one (93%). This might be due to the special financial support for preschool education and volunteer migration of excellent college graduates to work in the remote western China under government's policies (Hong, Luo, & Cui, 2013, pp. 72–76).

In the domain of higher education, while the central government has initiated reforms since the mid-1990s, the northwestern part of China, for example is still under-developed compared with other parts of China which is exemplifed by relatively small number of universities under the "211 project" (Berger, Hudson, & Blanco Ramirez, 2013, p. 4).

Chen and Wu (2011, pp. 22–24) conducted an analysis of the regional division of the higher education sector in China and classified higher education development at the provincial level into four zones: "Zone I: high development status and high development potential"; "Zone II: Low development status and high development potential"; "Zone III: Low development status and low development potential"; and "Zone IV: High development status but low development potential". The results showed that there existed regional gaps in higher education development in China and more than half of the provinces, mostly located in western China were in Zone III except Shaanxi being in Zone IV (pp. 22–24). Yao and Yu and colleagues (2013, pp. 268–269), using data of first-level indicators (scope and quality) and second-level indicators (scope of education, input of funding, teaching staff, level of research and construction of disciplines), to analyze the competitiveness of higher education among different provinces and areas in western China. The findings showed that there were two zones of competitive advantages (Sichuan and Shaanxi), one zone of relative advantages (Chongqing), six zones of relative disadvantages (Xinjiang, Qinghai, Gansu, Guangxi, Ningxia and Inner Mongolia) and zones of competitive disadvantages (Tibet, Yunnan and Guizhou). These results revealed a picture of unequal and uneven level of development for indicators in higher education. In another study on western China's higher education, Yao and Guan (2013, pp. 226–232) used the Context, Input, Process and Product (CIPP) evaluation framework and adopted the dimensions with first-level and second-level indicators which encompasses the following dimensions: Context with first-level indicators such as level of socio-economic development, status of human resources reserve, degree of rational educational distribution; Input with first-level indicators such as level of educational funding input, institution conditions of operation (property rights of institutions), level of construction of teaching staff; Process with first-level indicators such as level of education informization, level of education internationalization and level of educational equity; and Product with first-level indicators such as the degree of rational educational structure and level of educational development. Five groups or layers were identified with Shaanxi as the first layer; Sichuan in the second layer, Chongqing, Guanxi and Yunnan in the third layer, Gansu, Xinjiang, Inner Mongolia and Guizhou in the fourth layer and Qinghai and Ningxia in the fifth layer.

China's Western Higher Education Development as a part of the Western Development Plan was launched around 2000 intended to reduce the gap between the western region and other parts of China. Li Ying's (2013, pp. 93–94) policy analysis of western higher education in three provinces (Inner Mongolia, Qinghai and Yunnan) during the period of 2006 to 2010 showed that while student enrolments in higher education institutions and the overall educational funding had increased, the growth of funding had been slower in the higher education sector in western China when compared with other regions which could probably be related to attitudes of policy implementers towards the allocation of funding to higher education. The study of Tingjin Lin (2013, pp. 133–134) on the politics of financing education in China suggested that educational inequality at provincial levels might be probably related to the parameters of personnel policies such as the promotion speed and years before retirement which might shape the attitudes and behaviors of leaders and secretaries on resource allocation for compulsory education within a province. Using Ningxia as an example, Li (2013, p. 72) remarked that after the top leaders assumed their offices during 1998–2001: "The province extended universal compulsory education to the poor and guaranteed that the growth rate of educational investment would be faster than that of provincial revenue...Leaders in Ningxia were more interested in higher education than compulsory education, since the latter cannot produce well-educated human resources to meet the needs of the local economy."

Followed the "National Outline for Medium and Long-term Education Reform and Development", the Ministry of Education promulgated the Plan of Strengthening Higher Education in Middle and Western China (2012–2010) [中西部高等教育振兴计划 (2012–2020)] around 2011 (MOE, 2013). This document highlighted that by 2020, the middle and western parts of China would have some high quality and unique universities. There would be ten important tasks: strengthening the professional construction of advantageous and speciality disciplines; strengthening the construction of a talent workforce; deepening educational and instructional reforms; enhancing the level of research and innovations; reinforcing the capability of social services; promoting sharing of quality resources; increasing the educational access (to higher education) of students from middle and western parts of China; optimizing the layout structure of (higher education) institutions; enhancing exchanges and collaboration; and having a sound input mechanism.

Facing the constraints and educational challenges in western China, many western and international organizations have initiated research and/or development projects to assist its educational development. Under the umbrella of United Nations Girls' Education Initiative (UNGEI), a Working Group on Girls' Education and Gender Equality has been set up in China which is led by the UK Department for International Development and UNICEF.and under the auspices of the United Nations Theme Group on Basic Education and Human Resource Development. Efforts to enhance the early childhood development, the well-rounded development of children in basic education, enpowerment and life skills development of out-of-school children have been in progress.[3]

To address educational equality and equity in rural China, distance learning has been used as a measure to enhance the access to basic education. EU-China Gansu Basic Education Project, for example, highlighted the use of information and communication technology (ICT) in teacher training through the setting up of Teachers' Learning Resources Centres, most of which have internet connections in Gansu Province (Robinson, 2008, p. 3; McQuaide, 2009, p. 1). Another example was the Distance Education Project for Rural Schools (DEPRS) which encompassed three delivery models for instruction: Using Digital Video Disc (DVD) technology with a television set for rural elementary schools (e.g., Lee & Wang, 2005); the first model with adopting advanced satellite technology for middle schools; and providing computer rooms furnished with high-speed internet and multimedia classrooms for rural high schools. The evaluation results revealed that students' interest in study and their intellectual horizons have been enhanced and extended respectively. However, the DEPRS was beset with challenges such as the inadequacy of funding and the shortage of learning materials (McQuaide, 2009, pp. 3–4, 7).

There is not yet a book specifically on education in western China. However, there have been an increasing number of published books and book series (e.g., *Education in China: Reform and Diversity* series by Wah Ching Centre of Research on Education in China and published by Hong Kong University Press; *Palgrave Studies on Chinese Education in a Global Perspective* series;[4] *Critical Studies on Education and Society in China* series (Routledge);[5] *Brill's Series on Chinese Education*)[6] related to Chinese education. For example, the book, *Education and Reform in China* (co-edited by Emily Hannum & Albert Park, 2007, Routledge) emphasizes interdisciplinary views on the changing role of education in society and its impact on different social, ethnic, economic and geographic groups. Another recent book, *Curriculum Reform in China* (co-edited by Hongbiao Yin & John Chi-Kin Lee, 2012, Nova Science Publishers, Inc.) highlights curriculum and teaching reforms in different parts of China.

A recent book *Minority Education in China* (co-edited by James Leibold & Chen Yangbin, 2014, Hong Kong University Press) covers four parts: diversity in unity in diversity; minority education on the frontier: Language and diversity; education integration in China Proper; and styles, stereotypes, and preferences (Leibold & Chen, 2014, pp. v & vi).

There will be a forthcoming book, *Rural Schooling in China* (co-edited by Heidi Ross and Jingjing Lou, Routledge)[7] While that book highlights rural schooling, our book focuses primarily on the educational issues of pre-school, elementary and senior secondary levels in the geographically western part of China.

Our book have eighteen chapters. These chapters cover broad context of educational development and the reform in western China, issues of quality and equality in different setcors of education as well as curriculum implementation and teaching innovations and teachers' professional development of teachers. Written by a group of Chinese and international scholars, the book will provide updated analysis

and discussion of educational development and related issues in less developed, western part of China.

Educational inequality in western China as reflected by regional disparity in China is also associated with gender and ethnicity inequalities as well as rural and urban disparity.

Wang Jian in Chapter 2 has conducted a review of the research on western China's ethnic minority education. He highlighted examples from Xinjiang and Guangxi provinces as well as Tibet and Inner Mongolia and discussed certain issues of ethnic minority education ranging from the shift from preferential to special policy, educational functions and challenges of conserving cultural heritage to basic curriculum reform and bilingual education.

In Chapter 3, Stephen Bahry adopted Deweyan perspectives to analyze the education for minorities in western China, which emphasized approaches ranging from place-based rural education, school-based curriculum development as well as multicultural and bilingual education. Through the analysis of survey findings by gender and age group in Xinjiang, Tibet, Qinghai and Gansu, he found that there was a diversity of patterns of changes in primary, junior secondary and upper secondary completion during the periods of 1972–78, 1977–1983, 1982–88, 1987–93 and 1992–98. He suggested that there might be the potentials of having multiple case study research which could illuminate how educational attainments could be linked with external, internal or mixed influences through the innovation diffusion perspective and be connected with policy and schooling experiences.

In Chapter 4, Yanbi Hong examines gender inequality and ethnicity in western China from the perspective of stratification from 1949 to 2004. The results of analyzing the sampling survey data for basic and secondary educational attainment from Monitoring on Social and Economic Development in the Western Regions of China showed the following trends. First, there was a gradual decline of gender gap and inequality for basic education. Secondly, there was a trend of gender inequality when students entered their transition into senior secondary education. However, there was no conspicuous trend of ethnic difference in gender educational inequality either in basic or secondary schooling. Thirdly, the differences were largely accounted for by urban and rural areas and the disequilibrium between northwest and southwest areas. These results highlight the imperatives of enhancing rural and regional development even with the vast territory of western China.

In Chapter 5, Bernadette Robinson analyzes the phenomenon of left-behind children (LBC) focusing the welfare and education of rural LBC in China. There were evidences that revealed more girls than boys being left behind but there were pros and cons for left-behind girls. There are negative impacts on LBC such as emotional and behavioral problems, feelings of loneliness and lacking frequent communication as well as "dimmed filial affection". Under these contexts, it is advocated that resolving the challenging issue of LBC is a shared responsibility and there is a need to enhance corporate social responsibility and the awareness of

children's rights. The involvement of schools, teachers as well as the central and local government is also important. The chapter then refers to the Chongqing model which illustrates the importance of collaboration and coordination of various parties in supporting left-behind children and their families.

As for higher education, Jef C. Verhoeven and Jianxin Zhang in Chapter 6 discuss the pathways to higher education for ethnic minorities which have insufficient cultural, social and economic capital for their development in a Han society. Based on a random sample of more than two thousand students in ten universities in Yunnan Province, the results revealed that Han students tended to have greater access to key universities and private colleges while their ethnic minority counterparts tended to study in public undergraduate universities and advanced vocational colleges. In another study through interview with more than 800 grade three students from five senior high schools in Yunnan Province, the results suggested that fewer ethnic minority students had aspirations of studying at public key undergraduate university than their Han counterparts. While there is inequality between Han and the ethnic minorities in their access to higher education, there are inequalities within the ethnic minorities as well which call upon immediate attention for eradication of such inequalities.

In Chapter 7, Ju Huang and Shijing Xu adopted narrative inquiry to explore the cross-cultural learning experiences as well ass quality and equity issues of a pre-service teacher, Guli, developing into a novice in-service Mongolian teacher in a ethnic minority school in Northwest China through the Teacher Education Reciprocal Learning Program between the University of Windsor, Canada and Southwest University, China. Her experiences highlighted the tensions between the need for maintaining students' native ethnic language and the instrumental importance of learning Putonghua and English. This has probably influenced Guli's identity formation to be a bilingual/trilingual Mongolian and a teacher in the Monglian school. Moreover, Guli's overseas experiences has enhanced her understanding of the meaning of multicultural education and its application in a Chinese context.

Timothy Grose, in Chapter 8, explores the experiences of some graduates as informants from Beijing's Luhe "Xinjiang Class" as one of the schools participating in China's national boarding school program for Xinjiang's youth. Despite the central government efforts to provide incentives such as government scholarships and special teacher education programs for graduates of the "Xinjiang Class" to become teachers in rural Xinjiang, only a small number of graduates were willing to teach. Some graduates thought that to become a teacher would be a waste. Some remarked that gradual marginalization of Uyghur from the Xinjiang's curriculum and increasing dominance of Putonghua deterred them from becoming a teacher. Only some graduates from poor family background opted to become teachers in Xinjiang because of job stability. This complements to some extent, to Chen's (2014, p. 202) study of the experiences of Xinjiangban university graduates, which highlights that "this new Uyghur educational elite stratum could not only create

more Uyghur in-group discrimination in Xinjiang but also add a new challenge for Uyghur-Han interethnic relations in China".

In Chapter 9 on development of trilingual education, which encompasses the minority language, Chinese and English, in Western China, Eric Johnson, Fu Ma and Bob Adamson address two pertinent issues which on one hand how to harness the potential students' first language in learning and on the other hand how to cope with the shortage of minority of English as an international, third and foreign language. They then discuss the experiences of initiatives implemented in two minority regions in the Zhetu Township in Yunnan Province and Tibetan-speaking areas of Qinghai Province. In the case of the Zhetu Township in Yunnan Province, secondary students were taught through their first minority language (the Nong Zhuang dialect) instead of the Mandarin Chinese in supplement to the teaching of English.

In case of Tibetan-speaking areas of Qinghai Province, a teacher development program was designed to boost up the trilingual competence of junior high school English teachers. The content entails the blending of theoretical knowledge and practical skills, the analysis of teaching materials, pedagogical strategies, lesson planning and evaluation as well as enhancing student motivation. While the results were positive, there were still challenges such as the call for better connections between what was taught by the lecturers and the reality in rural classrooms as well as logistical and financial constraints for developing localized professional development programs.

In contrast with the development of localized professional development programs, Daguo Li, Xiaorong Zhang, and Viv Edwards in Chapter 10 explore the impact of continuing professional development through overseas training by a UK university in collaboration with China Scholarship Council (CSC) to secondary teachers of English at four sites (Guiyang, Zunyi, Chongqing, and Chengdu) in three provinces or municipality (Guizhou, Sichuan and Chongqing). The results revealed that the program had led to changes in teaching philosophy and teaching practices, enhancement in competences such as their English proficiency lesson planning and implementation and cultural awareness, as well as assumption of new leadership roles and enhanced interest in research. It is interesting to note that the one-week school placement had generated enormous impact on the participants. Nonetheless, there were constraints such as the influence of National College Entrance Examination, large class size in some schools, resources shortage in county schools.

In the arena of adult education, Mary Ann Maslak in Chapter 11 discusses adult education policy and practices from the perspective of women from minority groups. She pointed out that while the Chinese government has pursued a lot of endeavors in adult education, the meaning of ethnic minority for women has not been given sufficient attention. She calls for more emphasis on the notion of access which covers physical accessibility, availability of courses in terms of schedules, and useful materials in terms of languages adopted in teaching and learning. In addition, she promotes an Integrated Education model, which encompasses building

blocks of informal education, covers basic skills and connects with business and entrepreneurial enterprises as well as uses both native/minority languages and Mandarin, coupled with a recognition scheme of educational credentials could be considered in adult education for women.

In Chapter 12, Mingren Zhao, Chenzhi Li and Edmond Hau-Fai Law explored the status of school-based curriculum development (SBCD) in northwestern schools. The quantitative survey findings revealed that the factor "benefits to others" was one of the key factors that affected teachers' intentions of their participation in SBCD activities. In addition, while teachers had positive perceptions of the practical values of and principals' support for SBCD activities, they might have less than positive perceptions of SBCD innovations because of limited self-benefits, lacking supports and costs involved. Based on these findings, they proposed that teacher empowerment, action research, principals' curriculum leadership and government's support for SBCD could further be enhanced.

In Chapter 13, Xiaogang Xia, Chuanhan Lv, Bingyi Wang and Yun-ming Song discussed the research on the mathematics teaching experiment of "situated creation and problem-instruction" based on the Guizhou experiences in middle and primary schools which were now extended to other provinces and places such as Sichuan, Yunnan and Chongqing. This example shows that under the context of curriculum reform in Guizhou of western China, there exists successful curriculum and teaching reforms through the enhancement of teachers' instruction in "problem posing", the provision of ICR-type school-based teaching research for teacher development and the cultivation of a classroom environment that is conducive to students' development of problem-solving in mathematics.

In Chapter 14, Xianhan Huang, John Chi-Kin Lee, Zhonghua Zhang and Jian Wang examine teacher commitment in Northwest China based on an empirical study of Han and Uighur teachers. The findings show that teacher commitment entails two dimensions, namely, commitment to school and commitment to students. In addition, scores on school commitment are significantly higher for the teachers in the Han district than those in the Uighur district. However, teachers in the Uighur District scored higher in student commitment than their counterparts in the Han District for student commitment. These might be partly due to the influence of the co-schooling policy and other socio-cultural factors.

For early childhood education in western China as shown in Chapter 15, Xiaoping Yang, Min Li, Shanan Wang, based on the survey conducted in Xinjiang, Chongqing and Sichuan, discuss the findings related to children's development level in mathematics, hands-on activities in kindergarten, teachers' job satisfaction, and bilingual teaching in ethnic minority areas. It is noteworthy that there is a difference between children's mathematics development in urban and rural areas but there is no significant difference between teachers' job satisfaction in urban and rural areas. In addition, it is notable that while increasing teachers' income could heighten teachers' overall job satisfaction, it is also important to take into account teachers'

work conditions and opportunities of in-service development as well as to enhance the leadership and management in preschool education.

As regards special and inclusive education, Meng Deng and Kim Fong Poon-McBrayer in Chapter 16 examine the progress and challenges of parallel systems of special schools and the Chinese model of inclusive education illustrated by "Learning Regular Classrooms" (LRC) in western China. Until 2020, while it is anticipated at the national level that at least one special school would be set up for each city or county with a population of 300,000 or more, there would still be a shortage of special schools in the western region. In addition, these special schools could not serve as a resource centre and provide support for LRC program like their counterparts in the developed region because of resources and expertise constraints. Therefore development of more LRC program becomes the main option for students with disabilities. Despite the government has devoted a lot of efforts into LRC programs and training of special education teachers, the western China region is beset with challenges such as negative social attitudes towards special and inclusive education as well as children with disabilities, serious inadequacy of special education expertise and professionals, and shortage of resources.

In the domain of higher education, the study of university governance of a top university in western China by Manhong Lai, Linlin Li and Ping Du in Chapter 17 showed that while there is some discussion on shared university governance in the West and the recent introduction of the new policy "Regulations on academic committees in universities", the sampled university still adopted a top-down hierarchical system of decision-making at university, faculty and department levels in which professors' voices were not taken into serious consideration. In that sampled university, no formal "professor committees" were set up. Taking promotion of academic staff as an example, the faculty-level "Teacher Appraisal Committee" played a consultative function which could only make recommendations to the Joint Committee of the Faculty Dean and Party Secretary for consideration. There is, however, an expectation that the university should enhance the participation of ordinary university teachers in all major decisions within the university.

There has been a lot of educational development and professional development for teachers projects which has involved international partners in western China. Bernadette Robinson in Chapter 18 probes into the contribution of international aid to the development of basic education in western China. There are ample examples of international aid exemplified by individual donor support and World Bank's Basic Education for Western Areas Project (BEWAP), United Kingdom (UK)'s the UK-China Gansu Basic Education Project (GBEP, 1999–2006), the Project to Support Universal Basic Education Project in Gansu (2006–2010), the UK-China Southwest Basic Education Project (2006–2011), European Union (EU)'s support for the EU-China Gansu Basic Education Project (EU-China, GBEP) aimed at improving rural teachers' knowledge, skills and understanding through the support of information and communication technologies (ICT) and various modes such

as the residential courses, mobile training teams and school-based professional development via the local Teacher Learning Resource Centers (TLRCs). These initiatives have produced benefits such as helping China understand more the essence of "Education for All" goals as advocated by the UNESCO[8] and putting innovative educational approaches and model into pilot testing. Nonetheless, during the process of realizing aid projects, there are challenges from both the receiving country and the donor organizations.

CONCLUDING REMARKS

The content of the chapters in this book together with other existing literature seem to paint a picture of educational inequality for the western China despite the Chinese government has implemented policy directives, started initiatives and has provided funding to western China for enhancing the quality of education. The educational status of western China is often affected by economic/financial (relatively low level of development), geographical (remoteness in some areas) and cultural factors (e.g., ethnic diversity). For higher education, more needs to be done to enhance the educational development through educational financing to less developed provinces and areas while focusing on construction of high quality universities and zones of competitive advantages through improving the quality of teaching staff which could act as a coalition for sharing resources and assisting other provinces (Yao & Yu et al., 2013, pp. 274–277).

In the area of language education for ethnic minorities and educational development, it may be desirable to adopt just, pluralistic and liberal views that under the globalized world, more efforts could be devoted to preserving the values and potentials mother/native ethnic languages while equipping ethnic children to learn the national Putonghua language and the international English language and enjoy the benefits of trilingualism (Zhao, 2014, pp. 256–257). As regards the enhancement of teachers' competence under a multicultural context, Wang and Gou (2013, pp. 261–268) suggested that more attention needs to be given to enhancing the specialized funding and training system for multicultural and minority teacher education. There is also a need to incorporate more localized content into the school curriculum in western China and adopt a "school-based" and more decentralized approach (e.g., county-based) to teacher education and development. For localized approach to school and educational reforms, examples could be made reference to the comprehensive approach of "Gyaltsen national vocational school", which emphasizes moral education, women and monk education in Tibetan and Qinghai areas (Li, 2014).

Last but not the least, resolving the challenges of education in Western China needs a concerted partnership approach which calls for shared responsibility as echoed by Bernadette Robinson in her chapter on left-behind children. It needs the government's policy and resources support, schools and teachers' commitment in

making a difference on children's learning, the universities, business and community agencies' contribution in various ways.

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NOTES

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2 Retrieved 22nd September 2014 from http://www.china.org.cn/government/whitepaper/2010-09/10/content_20906126.htm
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5 Retrieved 22nd September 2014 from http://www.routledge.com/books/series/CSESC/
6 Retrieved 22nd September 2014 from http://www.brill.com/products/series/brills-series-chinese-education
7 Retrieved 22nd September 2014 and 27 June 2015 from http://www.fishpond.com.hk/Books/Rural-Schooling-China-Heidi-A-Ross-Edited-by-Jingjing-Lou-Edited-by/9780415537018 http://www.amazon.com/Rural-Schooling-China-Multidisciplinary-Education/dp/0415537010
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JIAN WANG

2. REVIEW OF THE PRESSING RESEARCH ISSUES ON WEST OF CHINA'S ETHNIC MINORITY EDUCATION[1]

INTRODUCTION

In the context of the accelerating development of ethnic minority education and the deepening of educational reform in China, education research focuses on the pressing issues related to policies and scientific theories of ethnic minority education. The study and analysis of these prevalent issues are significant in understanding the field of ethnic minority education and deepening research in this field. In this study, several major journal articles on ethnic minority education in China are analyzed, and the pressing concerns in this educational field are commented on.

STUDY ON POLICIES OF ETHNIC MINORITY EDUCATION IN CHINA

The government of the People's Republic of China has always placed great importance on the development of ethnic minority education. Numerous practical policies of ethnic minority education have been formulated according to the characteristics of ethnic minority groups and the actual situation of ethnic minority areas. Since the foundation of the People's Republic of China 60 years ago, particularly since the implementation of the reform and opening up policy, ethnic minority education in China has been gradually developed and continuously improved. Thus, remarkable achievements have effectively promoted the reform and development of ethnic minority education. However, alongside the changes came many new problems in recent years. The question arising from this phenomenon centers on the kind of ethnic minority education policies necessary to ensure and promote the sustainable development of ethnic minority education.

Scholars have been actively discussing this issue and have proposed many new and valuable opinions.

Preferential Policy Serves an Important Function in the Development of Ethnic Minority Education

Preferential policy is known as compensation policy in most Western countries. This guideline is a type of preferential or priority development policy that fully

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 21–35.

considers special natural, historical, and social conditions, as well as the factors in the development of ethnic minority education. Since the 1950s, special preferential development policy has been enacted for the ethnic minorities in China. Such policy is primarily based on the theory of fairness, equilibrium, and harmony. Taking school development as reference, the policy focuses on the outside of the school; that is, the focus is on the relationship of the school with society, nature, religion, economy, and other factors. Three kinds of external constraints in the development of ethnic minority education are at the center of this policy. Among all policies and measures, the great and significant ones are the bilingual education policy; the policy of awarding marks in the college entrance examination, and having ethnic classes and preparatory classes in regular colleges; Tibetan and Xinjiang classes offered in the mainland (the school); partner assistance; implementation of compulsory education; the policy of two exemptions (tuition and incidentals) and one subsidy (living expenses); assurance of funds for rural compulsory education; construction of rural boarding schools; training programs for high-level personnel of ethnic minorities; and faculty development. Through these policies and measures, the development of China's ethnic minority education has been significantly promoted, and the gap in education development between the ethnic minority areas and other areas has been narrowed.

Policy Related to China's Ethnic Minority Education Should Be Shifted from Preferential to Special

Since the founding of the People's Republic of China, the preferential policies have promoted the development of ethnic minority education, and a large number of ethnic minority personnel have been trained to promote economic and social development in ethnic minority areas. However, notwithstanding the social progress and the cultural changes, the preferential policies of ethnic minority education should be transformed to adapt to the changes in the external environment. In the first seminar of China's Ethnic Minority Education Society, the society president stated that research on special policies of ethnic minority education should be strengthened to further explore the specific bases proposed by ethnic minority education policies and thus establish a special policy system for the development of ethnic minority education in China.

A special policy fully considers both the special factors in the development of ethnic minority education and the specificity of the language and culture of ethnic minorities in order to cover the intrinsic goals, values, contents, methods, evaluation and other issues of ethnic minority education. Using the development of schools as reference, the key of such a policy lies inside the school, that is to say, it focuses on the relationship between the various elements within in-school education and the particularity of those elements. In western countries, such policies include those on bilingual education and multicultural curriculum. Preferential policy differs from special policy in that the former is formulated from the external

specific characteristics of ethnic minority education, whereas the latter is formulated from the internal specific characteristics. Attention to both preferential and special policy is a scientific and sustainable approach because it signifies that the problem of quantity has been addressed and the focus has shifted to the quality of ethnic minority education. Initiative and commitment in exploring the development patterns of ethnic minority education are important in the study of ethnic minority education theory, crafting policy, and developing ethnic minority education. Simultaneous with the strengthening of preferential policy since the 1990s, special policy has also been receiving attention. On the one hand, efforts have been increased in dealing with the remaining issues, such as the renovation of school buildings, improvement of teaching conditions, guarantee of funds for compulsory education, growth of teaching groups, and implementation of modernized distance education. On the other hand, special policies have been introduced with regard to teacher training, bilingual teaching, local course development, and school-based curriculum implementation, with consideration for the particularity of the language and the cultural heritage of the ethnic minority. Considering that the remaining problems have been gradually solved, the crafting and introduction of special policy has become the main task. Ethnic minority education is multicultural because of the diverse ethnic minority culture; thus, in the context of gradually providing solutions to the external problems of school education, the policy on ethnic minority education should be adjusted to focus on the solution to internal problems, including the two main problems, namely bilingual teaching and cultural curriculum.

In addition, ethnic minority education suffers from high dropout rate, low teaching quality, inadequate school fund, shortage, insufficient teachers, scarce high-quality educational resources, unsuitable curriculum and teaching materials, and difficult implementation of bilingual education. Therefore, special policies should be implemented in ethnic minority areas to develop the education. These policies include special measures to strengthen the teaching staff, develop the curriculum and the teaching materials in a manner that reflects and suits the culture of the ethnic minority, offer free and practical vocational education to ethnic minority students or in minority areas, establish courses or majors taught in minority languages, or offer bilingual teaching in colleges and universities. Not only should the special policies be implemented, they should also be prioritized in developing ethnic minority education. Priority in the process of development can be interpreted in two ways: taking the development of ethnic minority education as the key of developing national education, or taking the development of ethnic minority education as the focus of all developing programs in ethnic minority areas. The special mission of ethnic minority education and particular geographical and historical characteristics of ethnic minority areas determine priority. In addition, several scholars have compared the ethnic minority education policy of China with the American multicultural education policy in terms of concept, content, category, approach, and other policy aspects. Their findings show that both China and America insist on protecting the weak, as well as the complex and integrative structure. Thus, in the process of crafting ethnic

minority education policy, the essence of American multicultural education policy should be absorbed while the study is localized.

Study on Ethnic Minority Education and Inheriting of Culture

Ethnic minority education and inheriting of have always been important and difficult issues in the study of theories of ethnic minority education in China. Ethnic minority culture should be inherited through education and thus becomes an integral part of education. Considering the influence and the challenges of modernization, in-depth researches has been carried out on ethnic minority education and the inheriting of culture and focuses on numerous aspects, including the mission of ethnic minority education, the educational function of ethnic minority culture, the meaning and approaches of school education in the inheriting of a culture, and the method of local and school-based curriculum in reflecting culture.

Mission of Ethnic Minority Education

For society, the mission of education is to help form an atmosphere of tolerance, understanding, and respect for diverse cultures. For groups, the mission of education is to carry forward an excellent traditional culture and to develop culture-specific characteristics. For the individual, the mission of education is to arouse the cultural identity of the nation and bring the people into a new spiritual world. Ethnic minority culture serves as basis for the survival and development of ethnic groups. Thus, the knowledge and wisdom it contains is a valuable cultural resource. Each nation has unique customs, artistic content, psychological traits, religious beliefs, and other cultural symbols, which become fundamental elements of national character and temperament. Therefore, the excellent traditional culture of the ethnic minority should become an important part of ethnic minority education. In addition, the mission of ethnic minority education lies in developing the characteristics of the ethnic minority. Diversity and unique characteristics of nations must coexist to ensure the richness of global culture. However, developing the characteristics of ethnic minority does not mean isolating their culture from others, nor does it mean self-enclosure or excluding other cultures. Instead, it means innovating and integrating the national culture in the process of contact with different cultures to promote the development of their own culture.

Educational Function of Ethnic Minority Culture

Ethnic minority culture is the gathering of wisdom of ethnic minority people that reflects how people live. Culture outlines the natural environment and the birth of all creatures, portrays the early condition of human beings, describes how ancients explored culture, and tells the story behind the resource of a nation and the long process of migration. It introduces national heroes who either provoked community

enemies or resisted oppression, presents technical and medical craftsmen, models intelligent or innocent women, and implies the desire for an ideal life. Heroism, patriotism, optimism, dedication, humanity, and other noble ideals and precious virtues are held and reflected in culture. For instance, the colorful costumes of the Miao people reflect both the material and spiritual culture of its nation. Being a symbol that contains profound cultural connotation, the costumes allow students to learn the origin and history of the Miao people, form national identity, and establish an outlook of harmony between nature and humans. Culture reflects not only the unique wisdom for survival and the ecological environment of the ethnic minority but also the classic character and noble quality of people who pursue a good life and struggle against enemies. Spiritual wealth will always be the inexhaustible source of thinking and moral consciousness for ethnic minority people and even for all people.

Problems of Cultural Inheriting of Ethnic Minority

Problems and challenges in the inheriting of Chinese ethnic minority culture consist of three aspects, namely (a) the context of globalization, in which culture shock and conflict challenge the inheriting of culture in education, thus creating a crisis in the survival and development of culture and breaking the fixed space for inheriting culture; (b) the separation of culture in education from real life, such that culture education in real life suffers from weakening while culture education in the scientific world becomes out-of-life; and (c) lack of culture-inheriting education in school, such that teaching and the training courses for teachers ignore culture. A case in point is the Napo County of Guangxi Province. Scholars discuss the existing problems in the inheriting of multi-ethnic language and culture based on the analysis of interviews and data from questionnaires. In the context of accelerated modernization and the development of mediated communication, several of the ethnic minority languages are in danger of disappearing. Thus, saving these endangered languages becomes an important social topic.

Influencing Factors of the Inheriting of Culture in School Education

The education of a nation is closely connected with its culture. In general, education is the approach of inheriting a culture, whereas culture is the content of education. Ethnic minority culture is the collective wisdom of an ethnic minority people and an important factor in promoting political stability, economic development, and national unity. However, the current status of protecting minority culture is pessimistic, in that school education is short of culture in ethnic minority areas, and the youth lacks the necessary understanding of the traditional culture. School education in ethnic minority areas should have served a special function in the inheriting of culture. The factors influencing the inheriting of culture in education are the following: (a) lack of institutional guarantee from the law that makes difficult the carrying out education of ethnic minority culture, which results in the absence of rules about requirements

for the teaching faculty, curriculum, teaching equipment, and implementation of culture-inheriting education that does not really enter into classroom despite being in textbooks; (b) shortage of funds for education, which limits educational resources in regular teaching and thus results in the consideration of culture-inheriting education as secondary choice; (c) inadequacy of teachers, which basically means very few teachers know the traditional culture well and fluently speak both Mandarin and the native language, thus blocking the inheriting of culture in education; (d) mainstream culture, which has become the focus of school education, thus leading people into leaving very little consideration for the culture of ethnic minority and ignoring diversity in different minority areas and different cultures.

Significance, Approaches and Measures of School Education Inheriting Ethnic Minority Culture

The culture being protected and inherited in school education helps to promote national identity and enhance sense of national pride. Approaches of protecting culture in school education include (a) collecting ethnic culture resources, (b) increasing courses on language and culture and the content of ethnic minority education, (c) guiding students to experience the charm of national culture, and (d) inviting cultural celebrities to be teachers. Approaches for active inheriting of ethnic minority culture in school education include (a) bringing the culture of ethnic minority in line with the national curriculum plan, with the government setting up a special fund for the inheriting education of culture and increasing the investment and policy support for teacher training, curriculum resource development, and school construction in ethnic minority areas; and (b) developing local and school-based curriculum that uses and explores in depth the culture of the ethnic minority to gradually increase the proportion of ethnic minority culture courses in the school curriculum and encourage the development of school-based curriculum that is closely connected with local customs and traditions and that integrates folk songs, folk instruments, folk dances, costumes, and handicraft products into teaching. Several scholars once investigated the status of inheriting Mongolian traditional sports in local primary and secondary schools and found that the students had a strong sense of identity for the Mongolian traditional sports in the Mongolian region, but the function that local primary and secondary schools served in physical education is far less effective than that of the Nadam Fair, communities, families, and clubs. Thus, a flexible inheriting system should be established for Mongolian traditional sports at all levels, with various forms and from different directions. The system should consist of schools, communities, families, clubs, and traditional sports competitions presented by Nadam Fair. Several scholars believe that the national psychology and national values can be reflected in intangible cultural heritage, which is the essence of ethnic minority culture. The accelerated process of modernization and the increased communication between ethnic areas and the outside world reveal the lack of national characteristics. The popularity of education results in the decreased

opportunity of students to learn their native culture; simultaneously, new ways of inheriting of ethnic minority culture has been put forward. Research on how to inherit culture in the curriculum installation in ethnic minority elementary schools has been carried out, with the local primary school in Wulagaelunchun, Heilongjiang Province as a case study. Existing problems and confusion in the local schools with regard to inheriting national culture in school education have been concluded, and corresponding policy recommendations have been put forward in combination with reports on actual condition.

Strategies about how to inherit the intangible cultural heritage in primary and secondary education have been explored. The main problems existing in inheriting intangible cultural heritage in primary and secondary education are as follows: (a) fractured vicissitude of national psychology and intangible cultural heritage; (b) static protection for national, intangible cultural heritage; (c) conflict between the methods adopted in inheriting intangible cultural heritage in primary and secondary education weight and the cohesion/unity of education and culture inheriting; (d) ignored difference between nation and culture in the educational evaluation of intangible cultural heritage in primary and secondary schools. The protective strategies include: (a) establishment of a symbiotic mechanism of the inheriting of national psychology and intangible cultural heritage in primary and secondary education; (b) clear definition of the objectives of inheriting intangible cultural heritage in primary and secondary education; (c) reasonable selection of the content of inheriting education of intangible cultural heritage in primary and secondary education; (d) selection of appropriate inheriting approaches; and (e) setting of different education evaluation for the inheriting education.

CURRICULUM REFORM OF BASIC EDUCATION IN ETHNIC MINORITY AREAS

Curriculum reform of basic education in ethnic minority areas is a part of curriculum reform of basic education of the whole nation. As a multi-ethnic and multi-culture country, China experiences problems in dealing with the relationship between mainstream culture and ethnic minority culture in the context of basic education curriculum reform in ethnic minority areas. Many studies on this theme have been carried out from different angles.

Problems Existing in the Curriculum Reform of Basic Education in Ethnic Minority Areas

During the 60 years since the foundation of the People's Republic of China, remarkable achievement has been gained in basic education. Yet, cultural heritage and cultural characters of the ethnic minorities have been lost in the pursuit of achievements, thus resulting in the fractured culture inheriting and the one-sided curriculum that reflects the mainstream culture. Although curriculum reform in basic education has been implemented eight times in ethnic minority areas, all of

these reforms were dominated by a single cultural value. Students learn from these curricula only a concept or an ideology. The specific performances are the following: (a) the irrational knowledge structure of the curriculum and the unequal reflection of the culture of all nations; (b) separation of the course content from actual life; (c) adoption of the principle "one side fits all" in the curriculum system; (d) lack of course resources; and (e) outdated and monotonous national language textbooks.

The Direction of Curriculum Reform of Basic Education in Ethnic Minority Areas

To establish a cultural outlook of curriculum reform that mainstream culture and ethnic minority cultures should coexist. Although different cultural factors are embodied and reflected in mainstream culture and in ethnic minority culture, promoting the reform and development of basic education curriculum in ethnic minority areas and improving the cultural quality are interlinked in the basic education system of a unified multi-ethnic nation, thus becoming integral parts of the basic education of ethnic minorities. They co-influence and restrict the reform and development of basic education curriculum in ethnic minority areas.

To strengthen the development of curriculum resources of ethnic minority culture. Culture inheriting and the education of ethnic minority are integrated. For instance, the Tibetan monastery and Muslim scripture hall is both a religious site and a cultural institution that introduces and inherits the national culture. The Bimo of Yi ethnic group is both a priest and a host of original religion, taking the function of teachers. However, with the establishment of modern schools in ethnic minority areas, the inheriting of ethnic culture has become a problem. Among the existing courses, not one is devoted to minority cultures, such that the minority students in school do not come into contact with the history, religion, literature, and art of their own nation, not even with the ethnic minority language. The cultural tradition, which produces the method and lifestyle of the ethnic minority, is rarely reflected in the ethnic minority education courses. Currently, the nationally edited textbooks of all subjects in the ethnic minority education are written in Chinese, and the teaching content of school education follows the national curriculum. This curriculum concept ignores the inheriting function of ethnic minority culture and makes students not enthusiastic enough in receiving education. An increasing number of ethnic minority students are alienated from their own traditions because of lacking education in ethnic minority culture. Ethnic minority education is an important means of cultural transmission and dissemination, and thus should bear the responsibility of integrating the traditional culture with modernization and promoting the development of ethnic minority areas.

The traditional curriculum in ethnic minority areas are as follows: (a) the national curriculum + ethnic minority language courses, which means that ethnic minority language courses are started based on the national curriculum program and focus on the study of ethnic minority language and characters; (b) ethnic minority

language + Chinese language, which means that the course of ethnic language is offered simultaneous with other subjects using national textbooks translated into the native language and the Chinese language; and (c) Chinese language + ethnic minority language, which means that the ethnic minority language course is offered and the national general textbooks are adopted for all other courses. Although the ethnic minority language course is offered in the areas of language and characters, it is far from being able to enrich the education with abundant ethnic minority culture. The problems of low enrollment, high dropout rate, student disinterest in learning, and lacking parental support and cooperation with school education are caused by this kind of school curriculum. In addition, the traditional ethnic minority religious educational institutions are packed with children failing in school (学业失败儿童). From the perspective of cultural consciousness, if the excellence of each ethnic minority culture could be inherited through its education, then the local courses and school-based curriculum would be the main channel.

The development of school-based curriculum is an important component of curriculum reform in basic education and is also one of the main approaches to improve the quality of basic education. For schools in ethnic minority areas, the development of school-based curriculum aims at helping the schools with various cultural backgrounds, in various natural environments, and with different social developing levels to better serve the people in all ethnic minority areas. Additionally, this curriculum development helps students in ethnic minority areas learn to use local resources and master practical knowledge and skills to avoid the wide generation of culture-marginal man. The school in Menghan County (Jinghong City, Yunnan Province) has been studied in an attempt to prove the need to take the theory of economic and cultural type as one of the guiding ideology for selecting resources for the school-based curriculum. The development of livelihood education, environment education, and innovation education should be included in the development of resources for school-based curriculum in ethnic minority areas. The function of visible culture should be considered in the selection of curriculum resources. Insider autonomy should also be strengthened in the selection. Science courses in high school have also been investigated; the researchers found that teaching in ethnic minority areas should adopt the concept of life-to-curriculum and curriculum-to-society transformations to foster the objective of high school science curriculum despite the lack of experiment equipment. In addition, the mode of inquiry-based teaching should be emphasized to actively develop the local curriculum resources of science experiments. Through these approaches, the problem of lacking resources could be alleviated and students could be encouraged to combine their living experience with the courses. Thus, student interest and enthusiasm to study could be aroused, and their ability to solve practical problems could be developed.

However, several problems still persist even though several pilot schools in ethnic minority areas have already developed their own school-based curriculum. Among the problems are the evaluation of the quality of school-based curriculum and ensuring the healthy development of a school-based curriculum. A reasonable

understanding of these issues is closely related to the value of school-based curriculum in the implementation process. Therefore, the practice and research of school-based curriculum in the future should include reasonably defining the value of such a curriculum in ethnic areas, optimizing the relationship between integration and diversity in the development of school-based curriculum in ethnic minority areas, and rationally allocating the ratio of national curriculum and school-based curriculum. Only when all these issues have been properly addressed can the curriculum reform in basic education in ethnic minority areas can truly meet the needs of all ethnic groups and promote the sustainable development of ethnic minority areas.

Several scholars have analyzed the status of implementation of the three-tiered curriculum in the minority areas in the northwest, based on the assumed numerous problems, such as the cognitive deviation of the value of local curriculum and school-based curriculum and the confusing relationship with three-tiered curriculum. Their studies suggest that the developers and practitioners of the three-tiered curriculum should: (a) clarify the value of the curriculum, coordinate the social and individual values of the curriculum, and make possible achieving organic unity; should enable the subjects of development of local curriculum and school-based curriculum to possess the characters of its own culture; (b) be flexible in selecting the form of courses according to the reality of the schools and districts; and (c) enhance the multi-cultural awareness of teachers and qualify them with multi-cultural literacy.

STUDY ON BILINGUAL EDUCATION OF ETHNIC MINORITY

China is characterized by the long-term coexistence of multi-ethnic, multi-culture, and multi-language basic national condition. At present, the mother language of the ethnic minorities is the main communication tool for communities in remote mountainous and pastoral areas. The basic national condition that takes the mother language of ethnic minorities for universal education and the development of intelligence determines the long-term existence of the bilingual education complemented in ethnic minority areas. In 2009, bilingual education continues to be one of the key foci of the academic community.

Problems Existing in Bilingual Education

Two tendencies exist in bilingual education: (a) biased understanding of minority languages, which advocates that the minority language is useless and just a transitional crutch, yet claiming that the goal of bilingual education is proficiency in Chinese language; and (b) fear for Chinese language learning, which will diminish ethnic language or even make it disappear, insisting that bilingual education should focus on ethnic minority language. Both tendencies are rooted in the lack of recognition of the long-term nature and complexity of bilingual education. Bilingual education is an overall process that includes the teaching of both mother tongue and

second language, and contains two interrelated and mutually independent education systems, namely the own-language teaching system and second-language teaching system. On the issue of bilingual education, the extreme ideology of language integration and language nationalism still exists.

Xibo language teaching, influenced by language utilitarian ideology and other factors, is facing new challenges. The bilingual education of the Xibo group confronts the shrinking of social function of the Xibo language and shoulders two major tasks: (a) to strengthen its language teaching to establish a signaling system of thinking in mother language; (b) to make full use of the signaling system of thinking in the first language to carry out Chinese language teaching to eventually establish the signaling system of thinking in Chinese. A top priority of bilingual education of the Xibo group is how to strengthen the teaching of ethnic minority language. Its focus differs from the bilingual education of Uyghur and Kazak groups in Xinjiang. The school basic education of the Xibo group in Xinjiang should take the form of Xibo language, which is the Chinese bilingual education. The bilingual education system should be constantly improved to develop toward healthy direction. Currently, the main problem of the bilingual education of the Xibo group is how to improve the teaching of the Xibo language.

Several scholars have conducted case studies on the bilingual education of the Tujia group and arrived at the following conclusions: (a) the study of the Tujia language lacks a language environment, although many language learners exhibit a strong motivation and a positive attitude; (b) the number of teachers is limited, such that the bilingual education of the Tujia group is inadequate in the process of promotion; and (c) national feelings and national consciousness are affected by practical and utilitarian values and thus diluted by rational choice. Through the surveys on the convergence of bilingual teaching in primary schools, secondary schools, and colleges in Xinjiang, the learning environment has been found to be disjointed with the teaching environment, the communication environment is disjointed with the classroom environment, and the learning methods are disjointed with teaching methods. Another problem is the lack of a follow-up study on bilingual education from primary schools to secondary schools to colleges. Several strategies have been proposed in solving these problems.

Modes of Bilingual Education

Scholars have reached a consensus with regard to the four main modes of bilingual education of the Xinjiang ethnic minority. Mode 1: science courses are taught in Chinese language, and other courses in ethnic minority languages. Mode 2: minority language courses, music, physical education, and art courses are taught in ethnic minority language, and other courses in Chinese language. Mode 3: all courses are taught in Chinese language, and ethnic minority language courses are added following the curriculum system in Chinese language schools; ethnic minority language courses starts from Grade 1 or Grade 3. Mode 4: the traditional mode of

bilingual education in mother language is the basic, and Chinese language is also taken. From the existing four modes of bilingual education of ethnic minorities in Xinjiang, mother language teaching is involved in the curriculum provision and both Chinese language and the mother language are the teaching languages. This observation agrees with the principle of bilingual teaching and is in line with national and regional policies of language education. However, in the actual teaching practice, many problems about bilingual education, or the use of Chinese language and ethnic minority language, do not agree with principles, objective facts, and rules. (1) During the process of transforming the traditional mode of bilingual education to new mode, strategic thinking for the gradual transition is not adopted based on the conditions of teachers, the language ability of students, and the language environment. (2) Owing to the unilateral understanding of bilingual education policies, the teachers are strictly prohibited by some local education authorities and schools from using in class the mother language of their students. (3) The traditional mode of bilingual education cannot meet the need of modern society and the increasing development of education. In the process of implementing the principle of "some or all courses are taught in Chinese," the objective fact of unbalanced development between urban and rural areas, between southern and northern parts, and across all nations is not reflected in these three new modes of ethnic minority.

Surveys revealed that bilingual education in Xinjiang is divided into retention and transitional bilingual education. Retention bilingual education refers to that in the multi-ethnic society, wherein minority students are allowed to receive education in their own language. Its purpose is to protect minority languages and prevent such languages from recessing or disappearing. Transitional bilingual education means that ethnic minority students are allowed to use their ethnic language in the early years of primary education or even longer, and the ethnic minority languages can be used as teaching language. Teachers are allowed to teach basic knowledge and skills in ethnic minority language until the students master the Chinese language. Transitional bilingual education emphasized that Chinese language should be systematically introduced in the teaching process and not in a sudden and massive manner. In Xinjiang, a unique bilingual education system has been formed from rural to urban and from basic to higher education. Bilingual education in Xinjiang region is not confined to the selection of teaching languages but is also related to a series of problems, including college enrollment with two different scores, dividing teaching classes, and different assessment systems. The ethnic minority education in Xinjiang is responsible for offering equal educational opportunity for all ethnic people and for promoting regional economic and social development, thereby allowing each ethnic minority nation to fulfill its cultural autonomy and to build inter-ethnic integration. Bilingual education is intended to protect the diversity of different cultures and maintain the equal relationship among national communities, thereby fostering students into becoming the citizens of the People's Republic of China who share a national identity.

Strategy of Bilingual Education

The characteristics of teaching for ethnic minority can be shown in bilingual education. Through the deepening and expansion of the research field of bilingual education, the theoretical basis can be settled and the teaching mode could be constantly enriched. Several strategies have been proposed with regard to the issues of the Xibo-Chinese bilingual education: (a) to vigorously advance the teachers; (b) to strengthen the construction of teaching materials by building the bilingual teaching system with local characteristics; (c) to reasonably set the course of Xibo language to improve the quality of Xibo language teaching and to enhance the development of Chinese language teaching; (d) to establish research institutions in bilingual education and strengthen scientific research; (e) to expand the channels to increase the education investment; and (f) to effectively guarantee the policies and regulations of developing bilingual education, thereby promoting the smooth implementation of Xibo-Chinese bilingual education. Bilingual education in primary and secondary schools has undergone field study and was found to exhibit a strong regional difference in bilingual education in Xinjiang. Based on this finding, the formation of teaching staff should be reinforced according to different conditions to cultivate teachers who know very well both the minority language and Chinese; the construction of teaching materials should be focused on and the selection of textbooks should be done according to student Chinese basis; and special attention should be given to the function of mother language in second-language teaching.

According to the problems existing in the modes of bilingual education in Xinjiang, several solving strategies are proposed as follows: (1) teaching in Chinese should be based on the equality of all languages in the context of bilingual education of Xinjiang ethnic minorities, considering that minority people select from the practical point of view (according to their actual life, social, economic and cultural development, and communication) despite the provision of qualified teachers and students with different languages during the fostering process and the transformation process from traditional mode to new mode; (2) in terms of the goals of bilingual education, three corresponding modes should be involved to meet the demand of bilingual education for ethnic minorities, namely the "Chinese-enhanced," "bilingual balance," and "the protection of mother language;" (3) the imbalance in Xinjiang education between rural and urban areas, between regions, and between nations, should be faced because the current bilingual education "taught in Chinese" cannot be generalized yet should be based on the different conditions of teachers, educational objects, and their Chinese proficiency. Classroom language teaching should be gradually transformed from "bilingual teaching with both Chinese and ethnic language" to "taught in Chinese" to ensure the fulfillment of two objectives while ensuring that it involves both Chinese study and learning knowledge.

Policies of Bilingual Education

Protecting the language and characteristics of ethnic minorities is always regarded a main part in building equal, united, mutually beneficial, and harmonious national relationship. Since the founding of People's Republic of China, problems about the ethnic minority language have been clearly stated in the Constitution, as well as in relevant laws and regulations. Implementing bilingual education is ethnic minority schools is a fundamental right under the law. Several scholars believe that bilingual education is a basic educational system for multi-ethnic or multi-cultural countries. During the process of formulating and implementing the bilingual education system for ethnic minorities, the right to education of the ethnic minority people should be highlighted. Owing to the concept of power, the connotation of minority bilingual education policy could be enriched and the execution of bilingual education policy could be strengthened to promote the reform and development of bilingual education of ethnic minority.

NOTE

[1] The chapter is based on the references listed below. For any enquiries, please contact Prof. Wang jian via wangjian68@nwnu.edu.cn

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3. DEVELOPMENT OF WHAT, FOR WHAT, AND FOR WHOM?

Deweyan Perspectives on Education for Minority Nationalities in Western China

INTRODUCTION

This chapter examines educational development among the minority nationalities of Western China, including Baoan, Dongxiang, Hui, Kazak, Kyrgyz, Mongolian, Salar, Tajik, Tatar, Tibetan, Tu, Uygur, Uzbek, Xibe, and Yughur nationalities. The introductory section of the chapter surveys a range of understandings of development and quality in education and the assumptions underlying them and debates on education of non-dominant groups in general, and proceeds to the more particular issue of minority education and development, internationally, and in China.

The second section of the chapter looks at minority educational development in Western China quantitatively, providing a profile of the proportion of each nationality completing each level of formal education, giving some particular examples further broken down by region, gender, and age cohort/period based on published statistical data from the 2000 population census. This section provides a quantitative window on changes in Western China's minority education development and the development of universal 9-year compulsory education and the achievement of mass post-secondary education among minority nationalities. Changes over time in the attainment of a particular stage of education by members of a particular gender-nationality group and differences among groups in levels of attainment will be examined and their implications for educational development will be discussed. In particular, changes within and among groups are treated as examples of innovation diffusion, based on external and internal influences, which may shed useful light onto the educational development process.

The chapter concludes with discussion of the need for supplementation of quantitative with qualitative data, and argues for multiple embedded case study method as one means to do so, giving examples of small case studies that have attempted this approach. In addition to research that balances internal and external factors, the chapter argues for a similar need for balance in policy formation, implementation and policy development; in particular, the need for a portrait of educational development from a qualitative perspective, examining available research on perspectives on quality education for the nation, and also giving

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examples of individual cases where this has happened. Finally, the chapter calls for larger scale extension of such an approach using quantitative and qualitative data to evaluate recent initiatives such as Xinjiang's Bilingual Education policy, and ends by discussing implications for a quality education that supports the development aims of both state and minority stakeholders.

Understandings of Development in Education

Discussions of education and development are rife with terminological ambiguity. In English, for example, quality in education can refer both to the presence of desired characteristics among learners and an effective process or system. Chinese uses different terms for these two meanings, 素质 (sùzhì) in the first sense, and 质量 (zhìliàng) in the second (Kipnis, 2006), more clearly distinguishing quality of people involved in education: learners, parents, teachers, administrators etc. from qualities of the education system. Judgments of quality vary with who is making the judgment (Beeby, 1966, p. 12); thus, evaluation of educational quality should include assessments of worth by all stakeholders (Chapman & Carrier, 1990, p. 14). Yet, educational systems tend to assess quality largely based on impersonal technical criteria: efficiency, standardization, and consistency. As Olssen, Codd, and O'Neill put it, "The quality of education is reduced to key performance indicators, each of which can be measured and reported" (2004, p. 191).

The notions *quality* and *development* are apparently positive and unproblematic, yet have multiple interpretations. The verb, *develop*, can be used in English intransitively and transitively. In the first case, development happens naturally through normal experience, akin to the physiological changes in organisms towards maturity. Education here is unfolding of latent potential: if a seed falls on fertile ground and rain falls, it will sprout and grow. In the second case, development is brought about intentionally: where the soil is barren and dry, we work fertilizer into the earth and water the ground before we plant a seed. This range of meanings of *develop* leads to a wide variety of curricular and pedagogical approaches. For example, one survey identified at least five curriculum orientations: *Academic Rationalism*; *Personal Relevance*; *Social Adaptation, Social Reconstruction, and Cognitive Development* orientations (Eisner, 2002). Dewey sees tensions between such educational views as deriving from rigid either-or thinking that excludes intermediate categories:

> The history of educational theory is marked by opposition between the idea that education is development from within and that it is formation from without; that it is based upon natural endowments and that education is a process of overcoming natural inclinations and substituting in its place habits acquired under external pressure. (Dewey, 1938/1997, p. 17)

Dewey (1938/2007) focused not so much on development, as on a parallel concept, *growth,* as a central construct in his educational philosophy. Dewey's notion of growth, as Eisner puts it, is "the extension of human intelligence, the increase in

the organism's ability to secure meaning from experience and to act in ways that are instrumental to the achievement of inherently worthwhile ends." According to whether it contributed to growth, had no effect on growth, or hindered growth, Dewey classified educational experiences as *educative, non-educative, or miseducative.* Miseducation then, prevents such extension of human intelligence, or perhaps even reduces it, while non-education has no discernible effect.

Dewey argues for the importance of *continuity of experience*. Each experience builds on previous experiences influencing the quality of further experiences. Where educational experience provides the child with the potential to enjoy further enriching experiences, Dewey would say that the experience is educative, whereas an educational experience that restricts a child's ability to enjoy enriching experiences or that provides harmful experiences would be miseducative. Dewey further posits *interaction* as a criterion to distinguish educative from non- and miseducative experiences. Interaction for him does not simply mean verbal exchange, but rather the interplay between external and internal factors in a context, or situation. Overemphasis on external or internal factors in a situation risks producing non- or miseducative experience.

The principle of continuity of experience implies that the child's previous experience, almost entirely derived from family and community, obliges the teacher to consider the interests, attitudes and wishes of the child, its parents, and their community in the planning of educational experiences. This further requires the teacher to be familiar with parents, the community and their attitudes towards education. Thus, continuity for a child arriving at school unfamiliar with English language and American culture requires that the child's home language and culture should be included somehow in educational experience and that lessons in *English* and of *American* society and culture should be introduced in a way not *disruptive* to experience. Dewey's principles of continuity of experience, interaction, and growth together with rejection of either-or epistemology suggest that learning in the mother tongue and home culture should continue alongside learning in English and of American culture.

Minority Language and Minority Education

For minority-language children, a potential barrier to educational achievement is the language of schooling. In industrialized countries, where educational finances are relatively strong, minority-language children still often have a higher dropout rate, lower attendance rate, poorer achievement scores, lower rates of secondary school graduation and of continuation to post-secondary study, and more frequent placement in non-academic or vocational streams compared to majority-language children. For example, a study of all students classified as ESL in Alberta, Canada from 1989 to 1996 found that average dropout rates never fell below 60% of the total (Watt & Roessingh, 2001). Similarly, an analysis of Grade 2 elementary school mathematics achievement scores in England found noticeable differences between majority and

minority language students with approximately 40% of pupils with English as an additional language performing below or well below standard, compared to less than 20% of pupils with English as a first language performing at this level (Hargreaves, 1997). Such studies suggest that minority-language children's education frequently suffers in comparison with that of other children (Baker, 2011; Cummins, 2001; Skutnabb-Kangas, 1995). Minority-language children's lesser proficiency in the language of schooling is a factor influencing their lower participation rates, transition rates, and achievement scores in comparison to majority-language children. However, a Deweyan response would be that the fact of the home-school language difference for such children is less central to their success or failure in school than is the provision of continuity of experience in their education and interaction or lack of interaction in the classroom between the internal factors of home language and the external factors of the school/national language.

Types of Bilingualism and Language Proficiency, Experience, Growth and Interaction

Some scholars distinguish additive and subtractive bilingualism: additive bilingualism provides additional second language abilities or skills to the learner, without replacing learners' first language and culture; subtractive bilingualism, in contrast, involves the second language taking on the predominant performance of certain functions in place of the first language. Under subtractive conditions, minority language speakers may accept a subordinate role for their language and culture, or may resist learning the second language and participating in education (Baker, 2011; Cummins, 2001; Lambert, 1974). Dewey's principles would support neither mother-tongue-only nor national-language-only education; rather continuity of experience, interaction and growth would suggest a balance of home and national languages, in effect, a strong version of bilingual education providing learning of two languages and of curriculum content via two languages.

Popular myth holds that children easily learn a second language when provided with a second language environment. However, research on the second language development of immigrant children in Toronto revealed some anomalies. One to two years after their arrival in school with little to no English proficiency, teachers would assess language minority children as "fluent" in English, and ready for unsupported instruction in that language. At the same time, data on language minority children reveal performance below expectations for grade level (Cummins, 1981). Cummins further examined immigrant children's vocabulary knowledge, finding it required 5–7 years of second language schooling for them to approach grade norms. This paradox of lower academic vocabulary in the second language together with seeming fluency in the second language is posited by Cummins as a partial explanation of language minority difficulties in mainstream schooling: during the 5–7 years needed to catch up, curriculum learning is impaired, and cognitive development

is also not stimulated to the extent that it would be for English-speaking children. Cummins calls proficiency in informal spoken language used for face-to-face social interaction Basic Interpersonal Communication Skills, or BICS. Typically, it involves rather simple syntax and high-frequency lexis, embedded in an interaction, with many contextual and extralinguistic clues to meaning. BICS is relatively easily acquired by minority-language children through interaction with majority-language peers where meaning may be negotiated. Proficiency in formal language used for academic purposes, Cognitive Academic Language Proficiency, or CALP, typically involves more complex syntax, a large abstract vocabulary, with fewer redundancies, extralinguistic and contextual clues to meaning lying and often involves higher-order abstract thought. CALP is usually acquired through exposure to written language, whether at home or school (Baker, 2011; Cummins, 2001, 2008). The sociolinguist J. P. Gee (2012) similarly distinguishes primary discourses acquired early in life through interaction, and secondary discourses acquired later in life.

From a Deweyan perspective, the challenge of education is to link not only the external aspects of academic concepts to the internal factors of previous experience, but also to extend BICS proficiency to CALP proficiency, or in Gee's terms to add secondary discourses to children's vernacular, or primary discourse, avoiding an overemphasis on external factors. Thus academic learning involves learning the language of academic discourse as well as factual and conceptual knowledge. This challenge exists of course in monolingual contexts, but is exacerbated in contexts where academic language differs extremely from vernacular language. Cases where standard language differs so broadly from conversational language Ferguson calls *diglossia* (1959). Examples of diglossic languages include Arabic, Bengali, and Greek, where the standard language is a classical language or classically-influenced contemporary language. Indeed, the campaign in China in support of Bai Hua in place of classical Wenyan as a standard academic language was in part a response to the challenges for mass education and development of Chinese diglossia (Chen, 2001). Fishman (1967) identified two types of diglossic situations: those with and without bilingualism (where the high prestige variety is a different language or dialect), and two types of bilingualism (those with and without diglossia). Language minority students often face a double challenge of bilingualism and diglossia.

Tomaševski (2004), based on United Nations agreements on the rights of children from non-dominant backgrounds to their identity and to education, argues that education should provide 4 As: availability, accessibility, acceptability, and adaptability. The last two refer to acceptability and adaptability to the students and their community. How can education systems, schools and teachers deal with the challenges of education of students from linguistic and cultural minorities who have so often been found to experience difficulties, and provide acceptability and adaptability in addition to accessibility and availability?

Banks, a proponent of multicultural education, notes that the approach to non-mainstream culture(s) in schools can vary among complete absence, weak inclusion,

and stronger forms of inclusion of non-dominant cultures (1993, 1994). A common response of teachers, schools and systems is a weak form of multicultural education that Banks calls the contributions approach, which focuses on colorful aspects of minority culture: songs, dances, folk costumes and games. Such curricula represent those aspects of other cultures of interest to and easily understood by mainstream children and teachers themselves. While weak inclusion somewhat mitigates the dominance of external factors in standard curricula, Banks argues for strong forms of multicultural education in which more significant content from non-dominant cultures is present. Gorski (2008) argues that weak forms of multicultural adaptation, such as multicultural foods night at schools, are not just insufficient, but also harmful, in that they provide institutional support to a superficial, oversimplified view of other cultures, which in his view reflects a deficit view of non-dominant students and cultures that authorizes dominant groups' own view of their inherent cultural superiority.

Similarly, the range of approaches to non-mainstream language(s) in schools can vary from absence to strong presence. No accommodation whatsoever of language minority students' language is termed submersion education, temporary use of minority students' first language as a language of instruction (LOI) before switching to exclusive use of the dominant language is termed transitional bilingual education, while strong forms of bilingual education use both non-dominant and dominant languages as languages of instruction for much, most, or all of the educational process

Table 1. Policy options for minority-language children's education

Features of policy options	*Minority submersion education*	*Second language instruction*	*Transitional bilingual education*	*Maintenance bilingual education*
Literacy introduced in:	L2	L2	L1	L1
Medium of Instruction in Early Primary Years:	L2	L2	L1 & L2	L1 & L2
Medium of Instruction in Secondary Education:	L2	L2	L1 < L2	L1 & L2
L2 as Second Language instruction provided?	NO	YES	YES	YES

Source: Adapted from Baker, 2011

(Baker, 2011). Cummins argues that inclusion of minority languages in bilingual education is not enough to assure quality learning of language minority students if they are still exposed to a "sanitized" mainstream curriculum and inadequate pedagogies (2001). Instead, Cummins argues for empowerment of minority students through collaborative student-teacher creation of power and negotiation of identities, focusing on development of additive learning of languages and cultures and identity development.

Approaches to Challenges of Development and Education in China

There has been an emphasis in Chinese education on quality in education content as identified with traditional school subjects that prepare for university study; even more particularly, that prepare students for the College Entrance Examinations (CEE), whose three compulsory subjects, Mathematics, Chinese, and English are the drivers of an enormous washback effect. Quality teaching, learning and schools have further been understood quantitatively in terms of scores on tests and proportions of students who are promoted to the next level. This elite model streams children at a young age not only within schools but also among schools with certain schools ear-marked to receive more resources, more experienced and highly trained teachers, and students with the highest grades and test scores ("Harmful key school system", 2006; Huang, 2004; Su, 2002). In a field study of rural minority students in Gansu, one teacher complained that the negative effect on education of the CEE extended to kindergarten. Indeed this study included Grades 1 and 2, but not 3; 4 and 5, but not 6; and 7 and 8, but not 9, since Grade 3, 6 and 9 students were too busy studying for serious examinations that would affect their placement in the next year (Bahry, 2012). Indeed, the obsession with protecting quality through incessant selection by examination and entrance standards at all levels of education except primary, has created not so much a phenomenon of dropouts as "push-outs" (Lin, 1993).

This philosophy of the aims and means of quality education in force after 1977 resembles Eisner's Academic Rationalism (2002) in its narrow conception of education as preparation for post-secondary study, as measured by examination scores, and its lack of relation to place or student experience: in Deweyan terms overemphasizing external factors at the expense of internal factors and neglecting a balanced interaction between the two. Of course, such a conception of education pays little attention to minority language and culture, but not in a special way: it ignores the local and particular in general, in favor of what it conceives as universal knowledge.

China's Ministry of Education has criticized this *examination-oriented* or *promotion-oriented education* that neglects the development of other important qualities of students. The Ministry of Education has proposed instead, *education for essential qualities* that fosters development of a broad range of innate and acquired characteristics, aiming at "all-round development." This is understood as

requiring not only intellectual but also physical, moral, esthetic and labor education. Centralized curriculum has also been criticized for its isolation from student experience, and so curriculum authority has been broadened to include local and school-based curriculum, more closely related to students, knowledge, experience and interests, as a way of compensating for national curriculum's disconnection from the majority of China's children (Huang, 2004; Su, 2002; Yang & Zhou, 2002; Zhu, 2002).

Of course, such examination-based education pays little attention to minority language and culture, and so the reform of Education for Qualities, and institution of local and school-based curriculum development seem intended to link local minority contexts, knowledge, skills and attitudes with those of the rest of the country and the outside world. Yet these MOE reforms do not refer specifically to the challenges of minority education, but respond to the general depreciation of the local, particular, and individual, in favor of what it conceives as universal knowledge. However praiseworthy the proposed reforms may be, they depend strongly on the ability of existing policy makers and educators who have themselves been prepared under the assumptions of examination-based education to balance external and internal factors. A philosopher speaking of university curriculum reform in Canada reminds us of the difficulty for members of an epistemic community to critique their own practices:

> We are unable seriously to judge the university without judging its essence, the curriculum; but since we are educated in terms of that curriculum it is guaranteed that most of us will judge it as good. The criteria by which we could judge it as inadequate in principle can only be reached by those who through some chance have moved outside the society by memory or by thought. But so to have moved means that one's criticisms will not be taken seriously from within the society. (Grant, 1969, p. 131)

In a similar vein, a study of the implementation of school-based curriculum development in Gansu quoted a skeptical local official, whose local bureau's attitude was: "not to encourage, nor to oppose or to concern ourselves [with this]" (Li et al., 2006, p. 262).

Multicultural and Bilingual Education in China

Some researchers in China have also looked at other ways of improving minority education experience and outcomes. Wang and Wan (2006), for example, provide a critical appraisal of multicultural education programs in USA, Canada, UK and Australia, and an assessment of its utility in China's multiethnic contexts particularly the northwest. Wang and Wan conclude overall that this approach has great potential to inform curriculum development in China, as long as it does not blindly follow foreign models. In fact, what they call for is sinicization of multicultural education on the national scale, combined with localization.

Some have argued for a balanced use of both Chinese and minority languages in schools (BadengNima, 2001; Feng, 2007), corresponding to a strong form of maintenance bilingual education aimed at producing additive bilingualism. Yet "bilingual education" is used in China in multiple ways that are not always distinguished carefully, ranging from practices that in international literature would be termed dominant language submersion to transitional bilingual education to maintenance bilingual education (Bahry, Darkhor, & JiaLuo, 2009). In fact, Blachford found that many contexts feature an abrupt rather than gradual shift from mother-tongue-dominant primary to Chinese-dominant junior secondary education (1998), which does not really fit international definitions of transitional bilingual education (For models of bilingual education see Baker, 2011; for research evidence supporting bilingual education see May 2008; for language-in-education models in China see Bahry, Darkhor, & JiaLuo, 2009, p. 113). The recent shift in minority-education policy in Xinjiang from minority-dominant LOI toward "bilingual education" is therefore hard to evaluate, since little has been published in English about details of its implementation besides Ma (2009).

Innovation Diffusion as a Window on Internal and External Factors Influencing Education

Human geographers such as Hägerstrand (1967) have examined macro-level changes over time and space of distribution of technical innovations, such as telephones, and developed models to predict their spread from their origin as a function of size of different population centers and distance between them. Viewed on a micro-scale, social, technical or economic changes, or "innovations", have also been viewed by some as the cumulative result of individual decisions made by key individuals or "innovators" within a social group who then influence others in the group to follow them in their innovation. Most researchers of the diffusion of innovations conceive of innovation as the adoption of any new product, process, technique or idea by those who did not use it before (Mahajan & Peterson, 1985; Rogers, 1995) by means of a channel of communication.

Communication, then, is key to theories of innovation diffusion. When the percentage of "adopters" of an innovation is graphed over time, it typically is shaped like the letter S, increasing slowly at first, then rapidly rising, and finally leveling off, with steepness of slope of the S-curve varying among populations (Rogers, 1995). The resulting curves can portray a population synchronically, providing a snapshot of the proportion of each subgroup of society that has adopted an innovation at a particular time, or it can display the level of adoption of an innovation by an entire group diachronically, as it changes over time (See Appendices 1 and 3 for a clear visual representation of the wavelike spread of attainment of various levels of education among the nationalities of western China over time). Studies in apparent time that present a synchronic snapshot of different age groups at one point have been used by some as an indirect indication of changes in real time (Cukor-Avila & Bailey, 2013).

Mahajan and Peterson (1985) present two main theoretical models to explain the differences in pattern of diffusion referred to by Rogers: the Internal Influence Model and the External Influence Model. The internal influence model is associated with a prototypical S-curve, beginning with a slow rate of change, followed by more rapid change, then slowing down as adoption approaches a maximum limit. This pattern of diffusion is found where decisions to adopt an innovation are influenced mainly by interpersonal social contact between previous adopters and potential later adopters of the innovation. The external influence model resembles the latter half of the internal influence S-curve, showing initially rapidly increasing rates of adoption, and then also leveling off to resemble final stage of the S-curve. This pattern of diffusion is influenced by factors outside the social network, such as mass media and government policies.

Lamontagne (1999) suggests that changes in educational participation in China should be treated as examples of innovation diffusion. Bahry (2011) applied this suggestion to tertiary education, examining data for China's nationalities in 1990 and 2000, providing two synchronic portraits, suggesting which nationalities are in effect innovators, early adopters, and so on. The internal influence model would explain increasing minority nationality participation in higher education as dependent on demand generated through personal contact between those who have entered postsecondary study and those who have not yet done so. When there are social, linguistic or cultural barriers between adopters and potential adopters, or when university students and graduates migrate away from their community, opportunities for interaction are few, and the degree of internal influence would be low. Further, the existence of alternate forms of indigenous higher learning within an ethnic community could be a negative internal influence on participation in state higher education. The external influence model would explain minority nationality tertiary attainment as resulting from information through mass media or policies designed to promote minority higher education. Free university tuition, for example, would constitute a positive external influence, while a policy of no financial support for postsecondary education would constitute a negative external influence. The decision to participate in and continue in the education system is, of course, subject to both external and internal influence. In some cases, external, and in others, internal influences may predominate, while in yet others, there may be a complex interaction between the two.

Development as Increasing Attainment of Formal State Education

China has long had a policy of compulsory primary education, later extended in 1986 to compulsory 9-year basic education (that is, universal junior secondary education), adding to this more recently the policy goal of mass higher education, defined as 15% of the population with post-secondary degrees (Hayhoe, 1995, 1996). These policies are stated in terms of proportions of the population having

completed particular stages of education, and thus can be seen as primarily policy goals for development of the *population through* education. At the same time, the degree to which the targets are achieved can also be seen as indications of development of the capacity of components of the education *system* to meet these targets. The changing cumulative percentages of the population of selected western minority nationalities that have completed primary education, 9-year basic education, upper secondary education, and post-secondary education have been calculated from the 2000 national census, which gives a breakdown of educational attainment by nationality, gender and age cohort, allowing curves to be generated which can be examined and classified as resembling external, internal or mixed diffusion patterns. The nationalities examined are those that reside primarily in the western regions of the country (Gansu and Qinghai provinces; Tibetan Autonomous Region; Xinjiang Uygur Autonomous Region) and comprise the Bonan, Dongxiang, Kazak, Kyrgyz, Russian, Salar, Tatar, Tu, Uygur, Xibe and Yughur nationalities.

SAMPLE DIFFUSION BY GENDER/NATIONALITY AND COHORT

Changes in Compulsory Primary Education Attainment

As is evident from the two figures below, the pattern of change in primary education attainment has differed widely among groups, with a classic external influence pattern for Hui, Kyrgyz, Mongolian, Tajik and Uygur females, while an equally classic internal influence curve pattern is evident for Bonan, Dongxiang and Salar females over twelve five-year cohorts. Although the completion levels for the most recent cohort are becoming close for all groups in Figures 1 and 2, the trajectory by which these levels have been reached show interesting differences. The pattern of increase in Figure 1 suggests that external policies in support of compulsory primary education, as well their enforcement have been effective in terms of rapid and then steady increase in primary completion. A closer examination, however, reveals that increases leveled off, approaching a maximum of 70–80% by the mid-1960s, and beginning to increase further towards 100% later on. For Kyrgyz, Mongolian and Uygur females this subsequent increase began during the late 1960s and early-to-mid-1970s, and coincides approximately with the change of national education policies associated with the Cultural Revolution. For Hui females, primary completion remains near 80% for four 5-year cohorts and does not begin to rise again until the mid-1980s. For Tajik females, there is no leveling off: after an initial rapid increase typical of the external influence pattern, we see a steady linear increase typical of the mixed influence pattern. This suggests that once a certain proportion of Tajik females had achieved primary education, internal influences supporting primary schooling then also contributed to later primary attainment increases rather than primarily external policy influences.

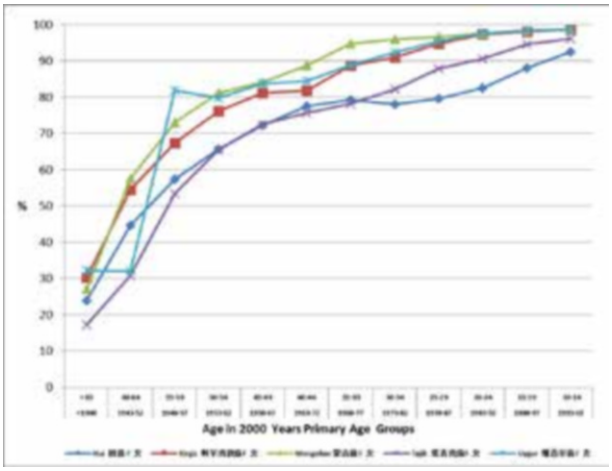

Figure 1. Primary completion by Cohort & group for initial stage I & II (0.0–40%): External influence pattern
Source: Calculated from China, 2003

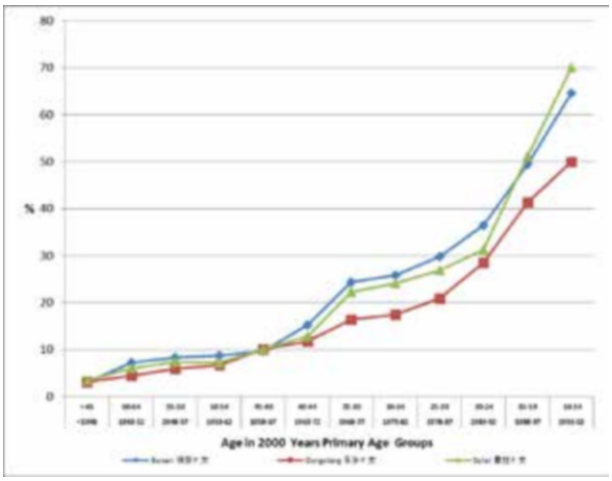

Figure 2. Primary completion by Cohort & group for initial stage I (0–20%): Internal influence pattern
Source: Calculated from China, 2003

The curves displayed in Figure 2 are typical of the internal influence pattern, which depends on communication within a social group as to the quality of the innovation. It is important to note that this can involve positive and negative internal

influences, according to how the experience of primary education is received. Note that initial rates of increase would be small regardless of the balance between positive and negative internal influences, which will affect the slope of the curve once more rapid increase begins. Note also that internal influence factors are a combination of Deweyan internal and external experience factors. In Dewey's terms, an overemphasis on either internal (personal experience, language, culture, community) versus external factors (school knowledge, second language and culture, national and international community) will constitute a net negative internal influence, and correspond to an exceedingly low rate of increase or even a stable low proportion of primary achievement.

Changes in Compulsory Basic Education Attainment: Junior Secondary Education

The policy change in 1986, making complete basic education, that is junior secondary completion, compulsory, can be examined also from the perspective of innovation diffusion. Figures 3–5 display cumulative junior secondary completion rates for four cohorts: the first, from the period before the compulsory policy; the second cohort during which the compulsory policy was announced; and the two subsequent cohorts. Figure 3 displays groups at Stage I of Junior Secondary completion (0–20%) for the first cohort: Bonan, Salar, Tajik and Tibetan females, and both Dongxiang females and males. As is evident, these groups exhibit the internal influence pattern. Despite the change of national policy, no change in the pattern of increase is seen, suggesting

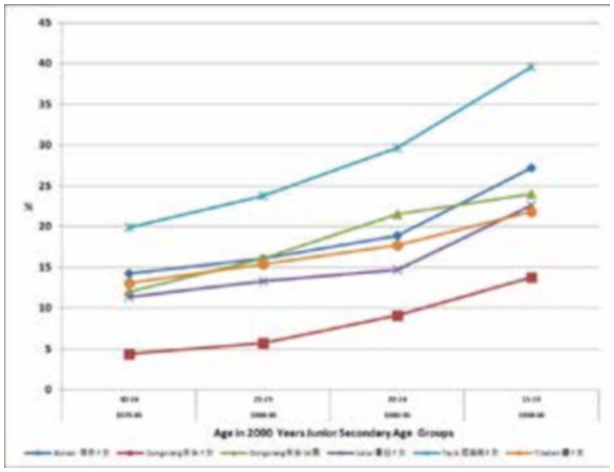

Figure 3. Changes in junior secondary completion by cohort for groups in stage I (0–20%) before 1986 compulsory basic education policy: Internal influence pattern
Source: Calculated from China, 2003

minimal effect of the external policy on basic education completion for these groups. Figure 4 displays similar results for groups at Stage II of Basic Education Completion before the policy reform, and also shows an internal influence pattern for Kyrgyz, Tu and Uygur females, and Bonan, Salar and Tibetan males. However, the rate of increase is higher among all the female groups, while for the Bonan and Salar males, it is quite low, and for Tibetan males it has stabilized.

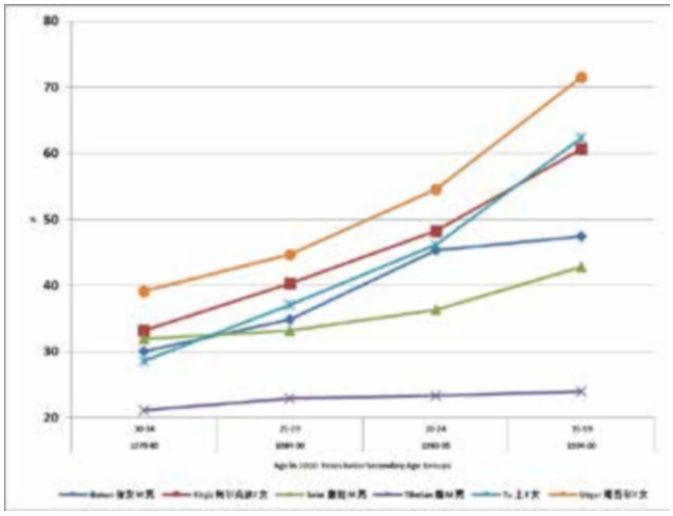

Figure 4. Changes in junior secondary completion by cohort for groups in stage II (20–40%) before 1986 compulsory policy: Internal influence pattern
Source: Calculated from China, 2003

Figure 5 shows changes in basic education completion for groups already at stage III of junior secondary completion before the policy of compulsory junior secondary education was declared. The pattern evident for most of these groups is steady linear increase typical of the mixed influence pattern here changes are responding to external and internal influences. The major difference between groups is the slope of the curve, with some showing a more rapid increase. The slowest rate of increase is among Hui, Kyrgyz and Tajik males, while the most rapid increase is shown by Yughur females. What is noteworthy among this group is that there is no evident increase in the slope of the curves immediately after the policy change: it remains steady for most of the groups and decreases for Tajik and Kyrgyz, and only increases slightly for these two for the next cohort. Thus, for the groups showing linear increase, there is likely a combination of external and internal influences; however, there seems to be no increase in external influence following the compulsory education policy.

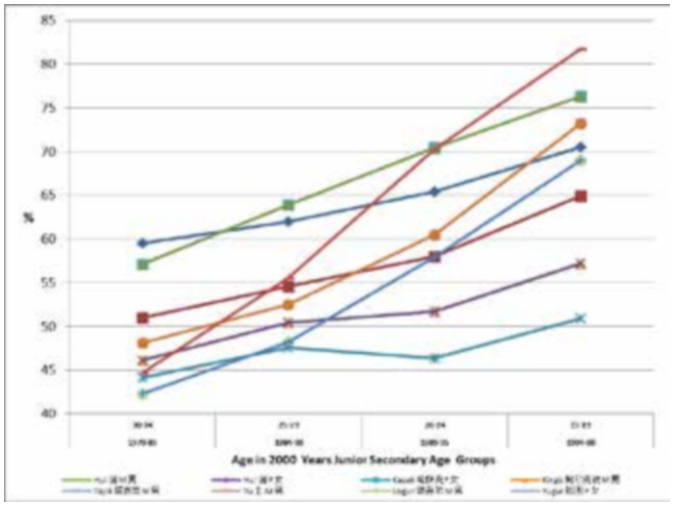

Figure 5. Changes in junior secondary completion by Cohort for groups in stage III (40–60%) before 1986 compulsory policy: Mixed & internal influence pattern
Source: Calculated from China, 2003

Changes in Upper Secondary Education Attainment (Non-Compulsory)

Despite the institution of free, compulsory, basic education in 1986, upper secondary education remains non-compulsory and subject to tuition fees. The figures below display cumulative completion rates for upper secondary education for the same five cohorts as above. In the figures, technical and academic streams are combined. The following stages of attainment of upper secondary education have been selected Stage I (0–5%); Stage II (5.1–10%); Stage III (10.1–20%); Stage IV (20.1–30%); and Stage V (>30%).

Completion rates from the last Cultural Revolution (CR) cohort continuing throughout the 1990s are shown in Figure 6 for groups at Stage I of Upper Secondary completion during the first cohort displayed. Here we see two groups displaying an external influence pattern, Bonan and Salar females, with a more rapid increase among the Bonan, with another two groups, Dongxiang and Tibetan females, showing near parallel change that could reflect a linear mixed influence pattern or an internal influence pattern which still displays a very slow rate of increase. The patterns of change suggest that for the latter two groups, there is very little positive influence of external policy, and as yet little positive internal influence. In contrast, the first two show evidence of external influence, with a much greater positive external influence for Bonan than Salar females.

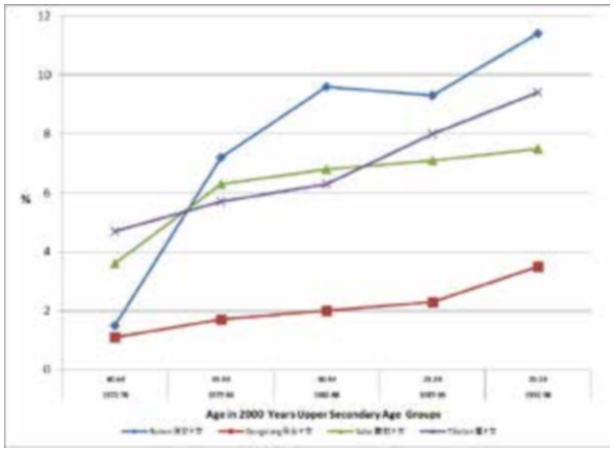

Figure 6. Changes in upper secondary completion by Cohort for groups in stage I (0–5%) at the end of the cultural revolution: External and internal influence pattern
Source: Calculated from China, 2003

Groups at Stage II of Upper Secondary completion during the first cohort are displayed in Figures 7 and 8. Those in Figure 7 show a mixed influence pattern, suggesting a balance of internal and external influences. Kyrgyz and Tu females show continuous linear increase, reaching 23 and 21%, while upper secondary completion for Uygur females soon begins to level off towards 20%. This suggests that for Uygur

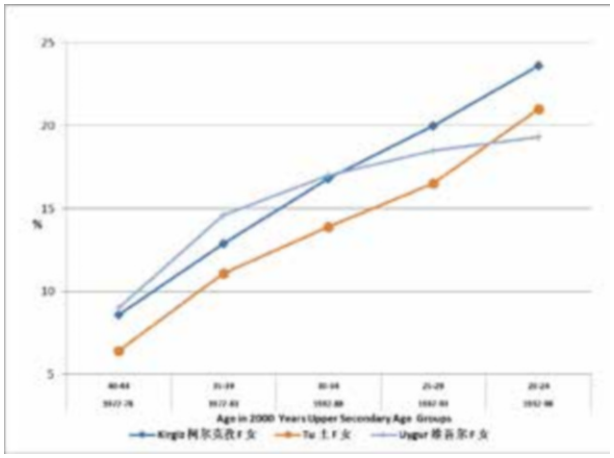

Figure 7. Changes in upper secondary completion by Cohort for groups in stage II (5–10%) at the end of the cultural revolution: Mixed influence pattern
Source: Calculated from China, 2003

females neither external policy influences nor internal influences deriving from positive classroom experience were as great as they were for the other two groups.

Those groups displayed in Figure 8 show a stable or decreasing mixed influence pattern. Here we see a consistently negative mixed influence pattern for female Tajiks, dropping from over 5% to just over 2.5% where it levels off, while for male Dongxiang, it falls initially, then rises, then falls again. In contrast, the pattern for Tibetan males has stabilized throughout the period at approximately 10% of each cohort completing Upper Secondary education. This linear drop for female Tajiks suggests a removal of positive external influences and perhaps the addition of negative internal influences over the period, suggesting no net positive influence of external policy, and also the possibility of changes in curriculum and pedagogies that could constitute negative internal influences. The linear pattern changes for male Dongxiang over this period also suggest a mixed influence pattern, with changes from net negative external and internal influences to net positive external and internal influences from the first two to the third and fourth cohorts, followed by yet another shift, from net positive to net negative external and internal influences from the fourth to the fifth cohort. The flat attainment level for Tibetan males suggests that there are insufficient positive external and internal factors to support increase of upper secondary attainment beyond this level for this group. At any rate, for all three groups there has been no net increase in upper secondary attainment in the post-CR period displayed in the figure, and no evident positive effect on upper secondary completion for Tajik females and Tibetan males of the 1986 compulsory basic education policy, although it may have played an effect on the increase in upper secondary attainment for Dongxiang males from the third to fourth and fifth cohorts.

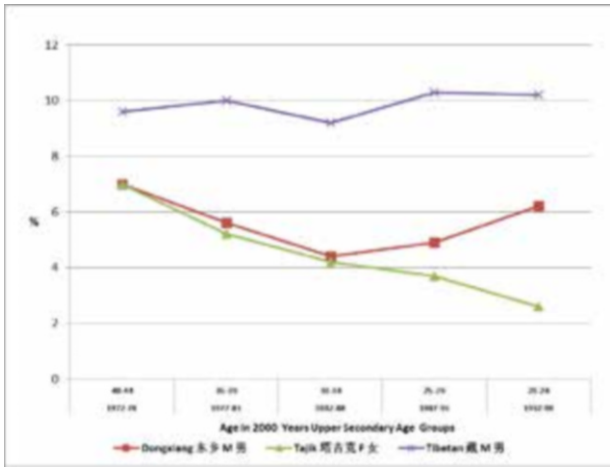

Figure 8. Changes in upper secondary completion by Cohort for groups in stage II (5–10%) at the end of the cultural revolution: Mixed influence pattern
Source: Calculated from China, 2003

Figures 9 and 10 show groups at Stage III of Upper Secondary completion for the same post-CR period. Groups displayed in Figure 9 generally show increases in upper secondary attainment in this period. Most notably, Kazakh females show a clear external influence pattern with increases throughout the period, eventually leveling off at around 30% attainment, with no greater increase following the

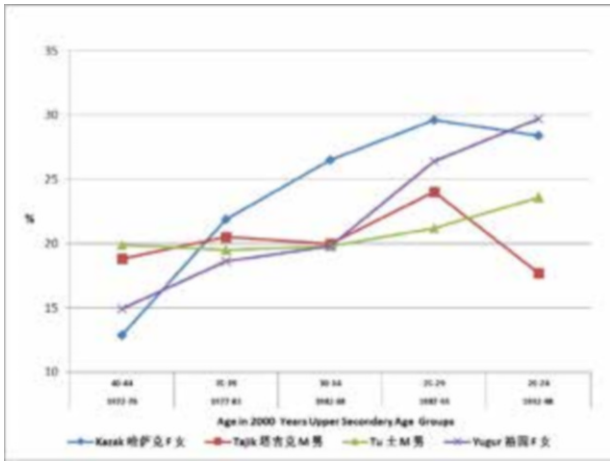

Figure 9. Changes in upper secondary completion by Cohort for groups in stage III (10–20%) after CR and before 1986 compulsory basic education policy: Increasing external and internal influence pattern

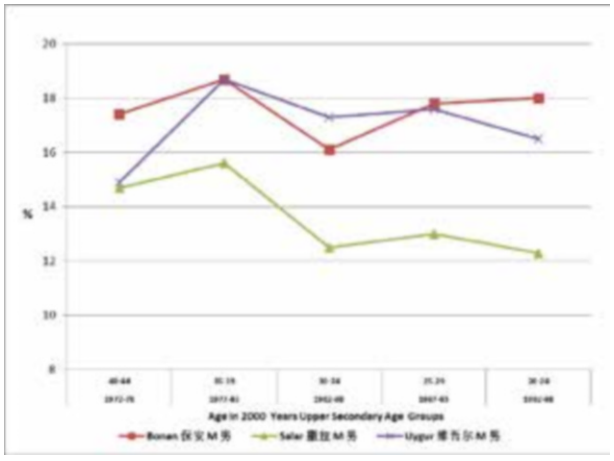

Figure 10. Changes in upper secondary completion by cohort for groups in stage III (10–20%) after CR and before 1986 compulsory basic education policy: Stable pattern

institution of compulsory basic education. Interestingly, Yughur females show a double external influence pattern, first leveling off towards 20% attainment; then in the cohorts following the announcement of compulsory basic education, rising rapidly again, reaching 30% upper secondary attainment. In contrast, Tu males showed stable upper secondary attainment of around 20%, before rising slowly for the two cohorts following compulsory basic education. Tajik males follow a similar pattern to Tu males, rising even more rapidly in the first cohort after the compulsory basic education policy, but showing a quite steep drop from the fourth to the last cohort, suggesting a major change in local policy and/or practices. In contrast, the three remaining groups beginning at Stage III, show a stable level of upper secondary attainment, which may indicate that some threshold has been reached beyond which attainment will not increase without the greater presence of positive external or internal influences.

Figures 11 and 12 show groups at Stage IV of Upper Secondary completion at the end of CR. Groups displayed in Figure 11, Hui males and females, and Mongolian females, show a stable or declining pattern until the period during which compulsory basic education was announced, and a subsequent linear increase typical of the mixed influence pattern from the third to fifth cohorts, suggesting some positive external influence from the policy change and some internal influences. In contrast, the groups displayed in Figure 12, Kazak, Kyrgyz and Yughur males, all show an external influence pattern; a rise followed by a leveling off as a maximum is approached, and then from the fourth to fifth cohorts a drop in upper secondary attainment. Changes in these patterns do not seem to

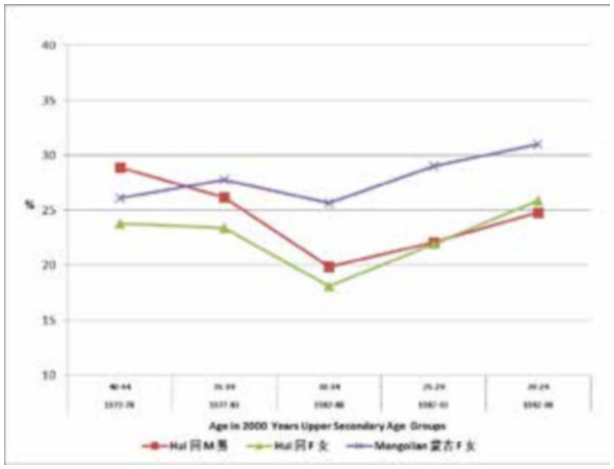

Figure 11. Changes in upper secondary completion by Cohort for groups in stage IV (20–30%) after CR and before 1986 compulsory basic education policy: Falling-rising pattern
Source: Calculated from China, 2003

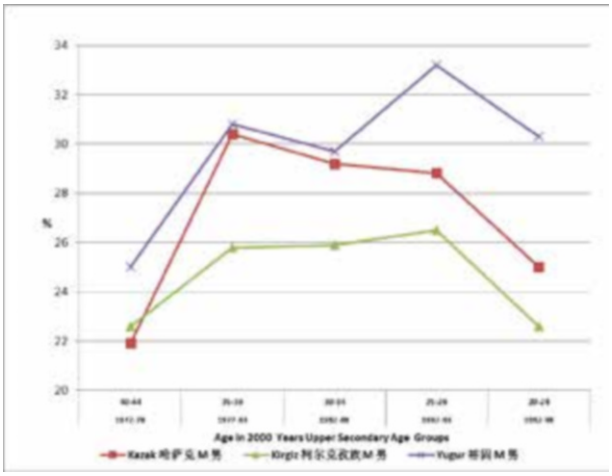

Figure 12. Changes in upper secondary completion by Cohort for groups in stage IV (20–30%) after CR and before 1986 compulsory basic education policy: Rising-falling pattern
Source: Calculated from China, 2003

coincide with national policy changes, and therefore more likely reflect changes in the local situation for these groups.

Changes in Post-Secondary Education Attainment (Non-Compulsory)

In recent years, China has been aiming towards the achievement of mass higher education, which can be understood as 15% of a population having completed some form of post-secondary education (Hayhoe, 1995). Despite the institution of this goal, relatively little work has been done on the possibility of mass higher education for China's minority nationalities. One study compared educational attainment statistics for China's nationalities as a whole, using data from the 1990 and 2000 censuses not broken down by gender and age cohort (Bahry, 2011). The following section uses a detailed breakdown by nationality, gender and cohort to provide a more nuanced examination of changes in post-secondary attainment (China, 2003).

Figures 13 to 17 display calculated cumulative total completion rates for any secondary education for five cohorts, combining statistics for highest level of education completed for short cycle (zhuānkē 专科), comprehensive undergraduate (běnkē 本科) and graduate education into a single cumulative post-secondary education statistic, in a similar fashion to the manner in which sub-types of upper-secondary education were combined. The following stages of attainment of mass post-secondary education have been selected, following Bahry (2011): Stage I (0–2.5%); Stage II (2.6–5.0%); Stage III (5.1–10%); Stage IV (10.1–15%); and Stage V (>15%).

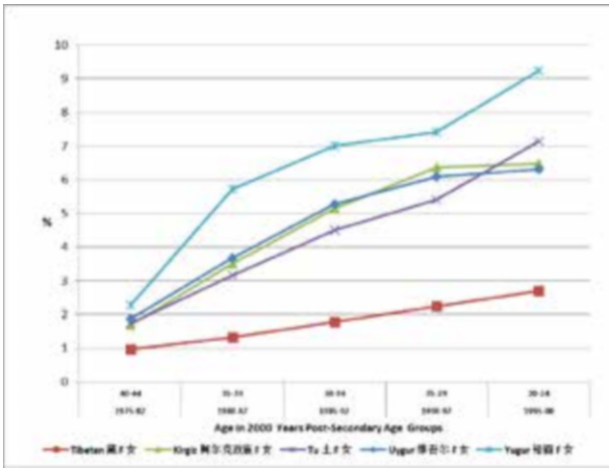

Figure 13. Changes in post-secondary completion by Cohort for groups in stage I (0–2.5%): External & mixed influence pattern
Source: Calculated from China, 2003

Figures 13 to 15 display groups at Stage I of post-secondary attainment during the first cohort displayed. Figure 13 incudes those groups that show an increase throughout the post-CR periods displayed. Changes for Yughur females follow an external influence pattern, while those for Kyrgyz, Tu, and Uygur females follow a quite similar mixed influence pattern, showing a fairly steep linear increase, leveling off for Kyrgyz and Uygur females at between 6 and 7%. Notably, changes for Tu and Yughur females do not level off, but continue to rise at a similar increased rate from the fourth to fifth cohort. Figure 14 displays those groups with little or no increase in post-secondary attainment throughout the period. Tibetan males show an increase from the late 1970s to the 1980s, after which there is a slight decrease leveling off towards 3%, whereas rates for Dongxiang males fluctuate around 1%, increasing slightly from the fourth to fifth cohorts, but showing no net increase over the entire period displayed. The rates for Dongxiang females, the lowest in this figure, increase from the first to the third cohort, but show virtually no increase throughout the 1990s. Figure 15 in contrast indicates groups for which post-secondary attainment falls during the period. Two groups, Bonan and Salar females, show an increase from the first to third, then a fall from the third to fourth cohorts. Both the increase and subsequent drop are sharper for Bonan than Salar females. In contrast, show a constant decrease, the inverse of a rising internal influence pattern, with a slow decrease followed by a rapid decrease, then leveling off towards .5%. Thus for a total of 11 groups at Stage I of post-secondary attainment at the beginning of the period displayed, 5 show a net increase, 3 show no net increase, and 3 show a decrease. Notably, nine of the eleven groups beginning at Stage I are female, and two male.

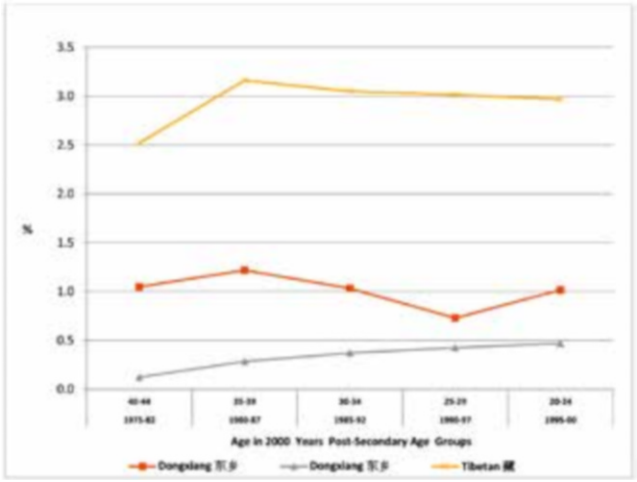

Figure 14. Changes in post-secondary completion by Cohort for groups in stage I (0–2.5%) before 1986 compulsory basic education policy: Stable pattern

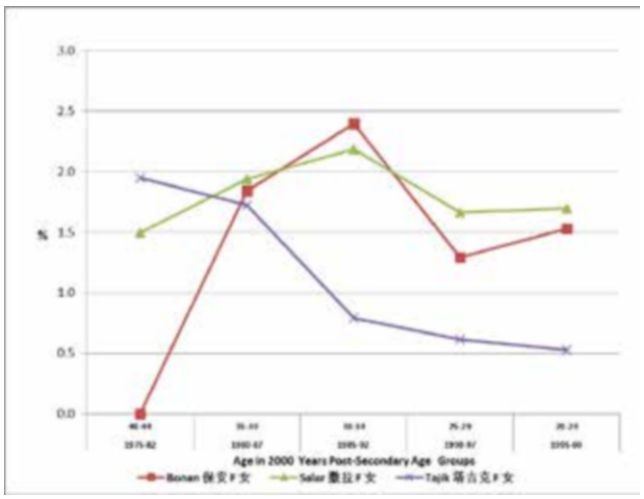

Figure 15. Changes in post-secondary completion by Cohort for groups in stage I (0–2.5%) before 1986 compulsory basic education policy: Falling external & mixed influence pattern
Source: Calculated from China, 2003

Figures 16 and 17 similarly display groups at Stage II of post-secondary attainment during the first cohort. Figure 16 incudes those groups that show a net increase throughout the post-CR periods displayed. Attainment levels for Hui and Mongolian females show a linear pattern moving in parallel, with Mongolian females consistently

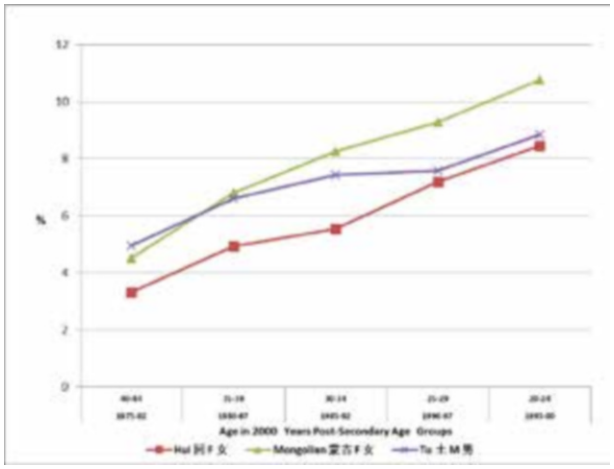

Figure 16. Changes in post-secondary completion by Cohort for groups in stage II (2.6–5%) before 1986 compulsory basic education policy: Mixed influence pattern

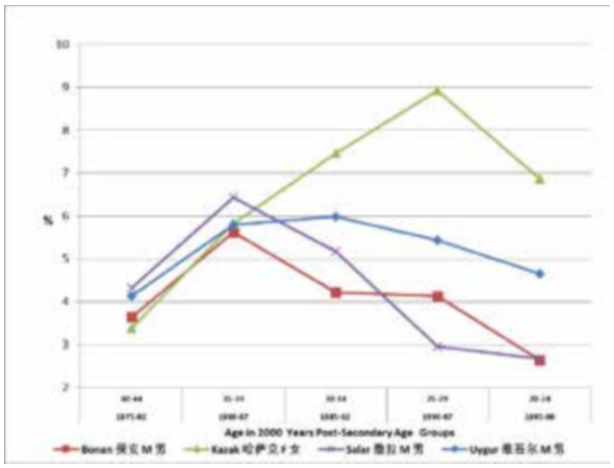

Figure 17. Changes in post-secondary completion by Cohort for groups in stage II (2.6–5%) before 1986 compulsory basic education policy: Rising-falling mixed influence pattern
Source: Calculated from China, 2003

displaying about 2% higher post-secondary attainment throughout the period. The linear pattern suggests a mixed influence diffusion pattern responding to both external and internal factors. The pattern for Tu males, however, shows a leveling off of the rate of increase from the second to fourth cohorts before increasing again from the fourth to fifth cohorts. Thus, for Hui and Mongolian females, there is no post-

CR change noticeable in the pattern of change, while for Tu males, the slowing of increases begins not immediately post-CR but in the third and fourth cohorts, which might suggest a reduction in upper-secondary attainment changes during this period; however, examination of Figure 9 shows near constant upper-secondary attainment, suggesting instead a decrease of the continuation rate of male Tu upper-secondary graduates to post-secondary education. Figure 9 does show an increase in supper secondary graduation from the fourth to the fifth cohort, suggesting that the increase in post-secondary attainment over this same period is more due to this increase than to any increase in rates of continuation to post-secondary study.

Figure 17, in contrast, shows those groups beginning at Stage II that are shifting from an increasing to a decreasing pattern. For two groups this downward shift begins after the second cohort, from the mid-1980s to early 1990s; while for Uygur males, it begins one cohort later, from the early- to mid-1990s, and one cohort later again, during the mid to late-1990s for Kazak females.

Figures 18 and 19 depict changes in post-secondary attainment for those groups having attained post-secondary Stage III at the beginning of the period displayed. Figure 18 shows those groups which maintained post-secondary attainment over the period, Hui, Mongolian and Tajik males, or increased post-secondary attainment over the period, Xibe females and males. Figure 19 in contrast displays results for groups which show an early increase followed by decrease, Kazak, Kyrgyz, and Yughur males.

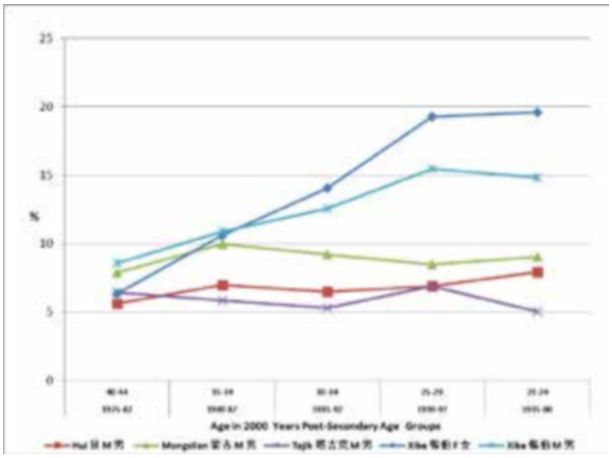

Figure 18. Changes in post-secondary completion by Cohort for groups in stage III (5.1–10%) before 1986 compulsory basic education policy: Rising and stable patterns
Source: Calculated from China, 2003

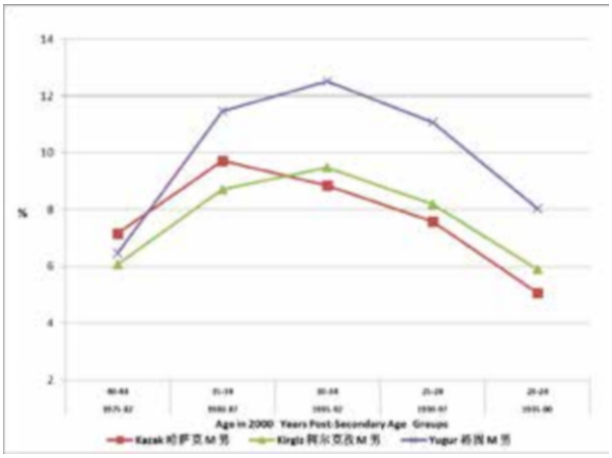

Figure 19. Changes in post-secondary completion by Cohort for groups in stage III (5.1–10%) before 1986 compulsory basic education policy: Rising-falling mixed influence patterns
Source: Calculated from China, 2003

DISCUSSION

The results presented above show several interesting phenomena. Perhaps most evident is the diversity of patterns of change and the resulting impossibility of treating changes in educational attainment of western minority groups as a unitary phenomenon. We find examples of increases, stability, decreases, and rising-falling patterns; we find similarities among ethnicities, even among some widely separated in space, such as the Yughurs of Gansu and the Kyrgyz of Xinjiang, while also observing differences among neighboring groups such as the Tajiks and Kyrgyz in Xinjiang. For some groups there is a clear difference in patterns between genders; for others, there is much less difference in attainment between genders, while for yet others, female attainment, initially lower than that of males, is increasing more rapidly than it is for males of the same nationality.

However, applying innovation diffusion theory, using its distinction between external and internal diffusion as a heuristic, allows hypotheses to be generated about the manner in which processes of change go on. Far from being a deterministic approach, this approach reflects the agency of the individuals of those involved in the process of change. External diffusion factors typically are related to factors such as policies and their implementation. Blachford (1998) sheds light on the process of policy interpretation and implementation in her study of practices and perspectives of local officials in minority education in Gansu and Xinjiang, identifying three broad

types of local policy maker, those who see themselves as center-representatives, advocating for central policies to be implemented; those who see themselves as local representatives, adapting and even resisting central policies that they see as counter to local minority interests; and those who take a flexible approach, adapting to the prevailing local climate, sometimes supporting, sometimes not supporting, central polices. Moreover, we can see from multiple examples in the figures above that while external patterns are associated with initial rapid increases, these are not always sustained: there are multiple examples of increases being followed by decreases. The balance of positive and negative external factors is subject to change, possibly corresponding to changes in policy, or in local implementation of policy.

At the same time, changes in implemented educational aims, curriculum and pedagogies strongly affect the experiences of students, their families, and communities, providing positive or negative experiences which constitute internal influence factors in innovation diffusion theory. Deweyan philosophy of educative experience requires balanced interaction between factors internal and external to student experience. Educational development, to count as *educational*, cannot overemphasize either external or internal factors of experience. Applied to education of non-dominant groups, exclusive emphasis of the groups' own experiences and values would thus be non-educational as limiting experience and growth, and encouraging isolation. By the same token, exclusive emphasis on dominant groups, their knowledge perspectives and language, would also count as non- or miseducative, functioning not to transform minority students and groups through education but to assimilate those who could and would be open to this form of education, leaving the rest semi-educated, non-educated or even miseducated.

Innovation Diffusion Theory

External Influence Factors	+	*Internal Influence Factors*
group-external communication channels		group-internal communication channels

Deweyan Theory of Experience

Overemphasis on external factors	*internal-external balanced interaction*	*Overemphasis on internal factors*

Figure 20. External & internal influence factors derived from innovation diffusion and Dewey

Relevance of Pre-2000 Attainment Data to Post-2000 and Current Situation

The evidence adduced in this paper is suggestive of contexts where the policy environment and school experience supported increasing educational attainment strongly, moderately, weakly, or even negatively. The use of innovation diffusion

theory provides a means to identify whether changes in attainment follow an external influence, internal influence or mixed influence pattern, and to infer from this whether the external policy environment or the group internal communication of school experience, or a combination of the two was more likely responsible for the pattern of change over time. Finally, the use of Deweyan theory of quality of experience, continuity of experience, and balance of interaction among factors internal and external to student experience provides a lens by which to interpret the internal influence pattern of innovation diffusion theory as resulting from the overall quality of the schooling experience, as judged and communicated by students and their social group, including future potential students.

The concept of resistance to education (Willis, 1977) is therefore regarded skeptically from a Deweyan perspective, since the notion of resistance presumes the quality of education offered and then theorizes lack of student response as rejection of a good; a Deweyan view, rather, would view low engagement in schooling as an understandable response to non-educative and miseducative experience, and look at the quality of experience organized by schools and teachers as one explanation:

> … lack of mutual adaptation made the process of teaching and learning accidental. Those to whom the provided conditions were suitable managed to learn. Others got on as best they could. … Otherwise, the pupil was expected to take it in the doses that were prescribed from without. If the pupil left it instead of taking it, if he engaged in physical truancy, or in the mental truancy of mind-wandering and finally built up an emotional revulsion against the subject he was held to be at fault. No question was raised as to whether the trouble might not lie in the subject-matter. The principle of interaction makes it clear that failure of adaptation of material to needs and capacities of individuals may cause an experience to be non-educative quite as much as failure of an individual to adapt himself to the material. (Dewey, 1938/1997, pp. 45–47)

Cross-tabulations for nationality, gender, age, and educational attainment from the 2010 census will provide very useful information on recent trends in educational development in Western China, once they become available. In the meantime, some limited, but very recent, information is available from the Annual Education Statistics Yearbook from Xinjiang UAR, which provides information on combined minority student enrolments relative to total student enrolment. About two thirds of primary students belong to a minority nationality, which is roughly comparable to the minority nationality share of Xinjiang's population, decreasing to just above 60% of junior secondary students, and dropping abruptly to about 45% of all students at the post-compulsory level, which indicates marked underrepresentation of minority students in upper secondary and post-secondary education (see Appendix 3). These are the most significant levels of education in developing minority community capacity to participate in local social and economic development in their communities, which in a Deweyan sense requires the development of individuals able to balance interaction between the outside world and the internal community.

Relationship of Educational Development and Minority Occupational Structure

This chapter has focused on the development of the education of the minority nationalities of the western regions rather than social or economic development as a whole. Indeed, Dong and Wan (2004) in their investigation of a rural Kyrgyz community in Xinjiang found that education and training of cadres was inadequate and could limit local development: in particular, Kyrgyz-speaking and Chinese-speaking cadres did not know each other's languages well enough to engage in dialog. Thus, the question can be raised of the relation between development of education in terms of increasing educational attainment of the various western nationalities and their participation in local social institutions and the economy. Since relatively little formal education is required to participate in the primary sector as agricultural workers, one indication of a link between educational development and broader development might be the degree to which increased educational attainment is accompanied by diversification of employment beyond the primary sector. A recent comparative study of the Kyrgyz nationality, located largely in Kizilsu Autonomous Kyrgyz County, Xinjiang and the Yughur nationality, located largely in Sunan Yughur Autonomous County, Gansu investigated this question (Bahry & Zholdoshalieva, 2012). Employment by industry and nationality were calculated as a percentage of the national rate for each industry. As is evident

Table 2. Employment by industry and nationality as a percent of the national rate (100=same as national rate)

Industry	*Percent of national rate*	
	Kyrgyz	*Yughur*
Farming, Herding etc.	132.2	121.0
Education, Culture, Art, Media	205.2	126.4
Government & Party Agencies; Social Organizations	144.5	202.4
Health, Sport, Social Welfare	120.5	202.5
Transportation and Telecommunications etc.	25.7	82.1
Wholesale and Retail	30.5	59.7
Banking and Insurance	32.3	42.4
Social Services	19.8	52.0
Scientific Research	12.7	48.7
Construction	2.9	45.5
Manufacturing	4.3	13.8

Source: Bahry & Zholdoshalieva, 2012, p. 41

from Table 2, for both Kyrgyz and Yughur, employment in agriculture is well above the national average. Nevertheless, there is evidence of some employment diversification in both populations with the index for employment in Education and Government above the value for agriculture for both nationalities, and for Health, for Yughurs. Remaining employment sectors are underrepresented (that is, below a value of 100) in both populations; however, values are higher among Yughurs than Kyrgyz, possibly reflecting a greater Chinese language proficiency among Yughurs, who are educated with Chinese-only language of instruction, in contrast with Kyrgyz, who were educated until recently mainly with Kyrgyz-only LOI. Nevertheless, the Chinese-only LOI of Yughur education has only made modest increases in employment diversification, which is coming at the cost of Yughur language endangerment (Bradley, 2005; Zheng & Gao, 2004).

Need for Comparative, Multiple Case Study Research

This chapter has suggested some cases of western minorities that stand out as possible examples of external, internal and mixed influence innovation diffusion, and possible relations to policy and schooling experience related with these examples, but these are merely exploratory hypotheses, inferred from the quantitative data interpreted through theoretical lenses. What is needed to confirm or challenge these hypotheses is detailed data of several types: a) on local education policy, implementation and perspectives of local officials, similar to Blachford's study (1998); b) local and regional quantitative data on enrolment, attendance, grades, test scores broken down by nationality, gender, age and educational level; c) qualitative data on perspectives of teachers, parents and students, broken down by district, school, age, gender and social group/nationality similar to Bahry's study (2012). A method is needed by which these various types of data can be compared within and across contexts: Bahry (2012) used multiple embedded case study method (Yin, 2003) as a means of providing rigorous analysis based on relatively small number of participants.

The use of embedded cases produces many miniature cases which can be used to test the findings of one embedded case against others. This method resembles mixed method in that it permits the use of quantitative and qualitative data. Using such a method, small scale case studies can be done reanalyzing existing data. For example Bahry and Zholdoshalieva (2012) used this method to study two small traditionally pastoral nationalities of western China, the Yughurs and Kyrgyz, comparing educational attainment statistics by cohort and gender, and survival rates from each level of education to the next, and available qualitative data and secondary research on perspectives towards education of the two communities, as well as employment profiles derived from census data. The study aimed at examining which of two groups would have higher levels of upper secondary and post-secondary completion and higher levels of employment outside the primary sector. The study focused on differences in the model of education experienced by the two groups: a) mother-tongue dominant for the Kyrgyz, and b) Chinese-dominant for the Yughurs.

It was hypothesized following Cummins' (2008) argument that second language submersion of language minority students does not produce the second language CALP or strong academic achievement necessary for success in higher levels of education that neither mother-tongue dominant nor Chinese-dominant education would produce high levels of Chinese CALP, and that both nationalities would show similar levels of upper-secondary and post-secondary attainment, and similar occupational profiles, which was indeed what was found. The conclusion was that a strong form of maintenance bilingual education where the mother-tongue and Chinese are both used as languages of instruction throughout education would be likely to develop additive bilingualism, with learners strong in BICS and CALP proficiency in two languages. One major difference noted however was that for the group with mother-tongue use in education (Kyrgyz) there was a much higher proportion of the minority nationality employed in education.

Similar small scale studies can be carried out using available data analyzed comparatively through several theoretical lenses. Candidates for such studies might be Xinjiang's Tajiks and Kyrgyz, both resident in a similar high mountain environment in Pamir and Tianshan, but until recently with different languages of instruction in basic education: Kyrgyz educated in Kyrgyz, and Tajiks in Uyghur (Dong & Wan, 2004; Luo & Zhao, 2004). Other candidates for comparison might be Xinjiang's Kazaks and Kyrgyz, both traditionally pastoralist and speaking mutually intelligible Turkic languages, but exhibiting some differences in academic attainment profiles. In Gansu and Qinghai, Bonan, Salar and Tu nationalities are candidates for comparison. Further candidates for small scale case study are the smaller nationalities of Xinjiang that show unusually high levels of educational attainment: Russian, Tatar, Uzbek and Xibe. What is responsible for their unusually high attainment rates, well above the national mean? To what extent do these high levels of educational attainment relate to a more diversified occupational profile beyond the primary sector with greater employment in secondary and tertiary, as well as professional and technical sectors? Results of multiple small scale comparative studies can then be compiled into a larger scale study of the western region. Finally, the case of nationalities with a large body of traditional literature and higher learning in their own well-developed literary languages can be considered. In the case of Tibetan and Uyghur education, a traditional alternative education, reserved mainly for boys, still exists as an alternative to state schooling, whose continued attraction constitutes a negative internal influence factor regarding state educational attainment. Educational statistics do not record the numbers of youth participating in such education, and so the strength of their internal influence can only be estimated.

Such studies can be used to generate hypotheses concerning the state of educational development in Western China after 2000, and combined with recent statistical and qualitative data, researchers can understand better the phenomenon of educational development in contemporary Western China, and in particular what students, parents, communities and teachers envisage as an ideal education; that is, their ideal of an educated member of their nationality in today's Western China. Parents in

one minority district in Western China face the dilemma of care for their children. In the name of increasing rural education quality, village schools have been closed and consolidated with township level middle schools, requiring language minority children to live as boarders away from their families at a young age. The thinking behind this reform is a notion of quality as related to an urban, Chinese-speaking environment in contrast to a low-quality rural non-Chinese-speaking environment. Officials have justified this by arguing thusly: 1) everyone wants all children to succeed academically; and, 2) strong Chinese-language skill is needed for academic success; and, 3) Chinese-language skill cannot be well-developed in the rural minority environment; 4) therefore, if minority children are provided with a high quality urban Chinese-language school experience, they will have a much greater chance at academic success (Bahry, 2012). Note that this logic applies equally to rural-Chinese-dialect-speaking Han Chinese students, who have also experienced closing of village schools in some districts. Despite assurances of increased quality, boarding students separated from their families have been found in some instances to be underdeveloped physically (Luo et al., 2009); and minority boarding students have been reported to run away in response to lack of "emotional warmth" away from their familiar environment they have trouble adapting and "crave emotional warmth" (Qian, 2007, p. 70). Parents are aware of the pressures their young children face and have set up as alternatives to dormitories, "Student Houses" where minority students live together in rented premises looked after by older members of the community (Qian, 2007).

What would a Deweyan analysis of this kind of initiative and its underlying notion of development be? Clearly, such programs emphasize external factors over internal factors of experience with little or no balance, interaction, or continuity of experience, which is disruptive of experience, and likely non-educative or even miseducative. In fact, the closing of rural schools signifies a deep pessimism regarding rural education, seeing penetration of urban schooling as rural development. One minority scholar refers to the effect of such thinking on individual development of minority students:

> Everything you study and come into contact with is from an extremely different culture; for more than 10 years of education, the teacher will not say a single word about your nationality, language, history or culture. Thus, this kind of lopsided education fosters students whose spirit and individuality are similarly lopsided. (Tiemuer, 2006, p. 41)

Some minority parents reported that as primary students they had been taught in Chinese, with different types of teachers: some knew both Chinese and Yughur and after teaching in Chinese provided "mixed bilingual education" giving oral explanation in minority language; others did not know minority language, but tolerated minority children with stronger Chinese proficiency explaining lessons in their language to children who did not understand; yet others reported they experienced a Chinese-only education, and were reprimanded or punished if they spoke their own language in class. Not surprisingly, parents preferred options a

over b, and b over c. In order to protect their children from the negative emotions they themselves had experienced in the 1–2 years before they could understand and speak Chinese, many parents have started speaking Chinese to children in the home before they begin school. Parents have also been shocked to learn that their children return from boarding school no longer able or willing to speak their mother tongue. Most parents interviewed support an additive linguistic and cultural philosophy desiring their children to develop strong grounding in their own language and culture as well as strong academic achievement and Chinese language proficiency. So what is at stake here is the notion of the ideal *educated minority person*, and what kind of education supports development of this ideal. Parents seem to strongly support an additive ideal: knowledge of one's own community's language, culture and perspectives as well of those of the country as a whole (Bahry, 2012).

Need for Dialog and Collaboration in Minority Education

Thus a notion of educational development as based on continuity of experience, balance and interaction between internal and external factors requires educators to know their students' and communities' well, a depth of knowledge which requires a high degree of dialog and collaboration among all stakeholders. This differs sharply from an external-dominated notion of quality in which the local is seen as low in quality and external understandings are simply imposed, and policy encourages educational participation through a combination of external carrot and stick, and non-compliance is seen as non-rational resistance, rather than as an understandable response to imposed overemphasis of external factors of experience.

Nevertheless, as part of a Canadian-Chinese collaborative project, efforts were made in Gansu to construct a local minority language curriculum which would support greater learning through use of local knowledge expressed in language more familiar local to minority children. The national curriculum, even when delivered in the mother tongue, is difficult to understand for children, and even for many teachers, in remote minority areas. National textbooks for example contain none of the distinct flora and fauna found in mountainous or regions or grasslands. In response, Wan Minggang, BadengNima, and JiaLuo (1999) prepared Tibetan-Mandarin bilingual textbooks that reflect the local environment and culture, incorporating, for example, traditional riddles and language games as means to stimulate creativity and advanced oral literacy. These initiatives involved scholars of Northwest Normal University and Northwest University for Minorities in Lanzhou, Gansu, the Gannan Tibetan Autonomous Prefecture Education Bureau**, s**everal school principals and 30 primary and middle school teachers as well as funding by Canadian International Development Agency (CIDA) and the Canada Fund (Canadian Embassy, Beijing). Two sets of readers were developed. The first set, *Tibetan Readers for Grades Four to Six* (Wan et al., 1999), focused on making cultural connections between the past and recent daily life. Quite innovatively, it also taught Chinese language through local minority cultural content. The second set, *Tibetan Readers for Grades One to Three* (JiaLuo,

2003), made connections between the local natural and social environment. Surveys of local teachers, parents and students where they have been used report a generally positive response to this approach. Follow-up evaluations also indicate increased attendance and more active participation of students and greater involvement of parents and local community (JiaLuo, unpublished field notes).

Figure 21. Tibetan-Chinese local curriculum readers for grades four to six (Wan et al., 1999, reproduced from "Tibetan Cultural Readers: Grades 4–6" with kind permission of Gansu People's Publishing House)

A recent conference in Lanzhou co-organized by the NWNU Center for Research on Minority Education and Development and Canada Fund of the Canadian embassy in Beijing brought together to discuss quality minority preschool education representatives of all stakeholders (except students): local government officials, education bureau staff and policymakers; local educators; researchers from several universities and colleges in Gansu and Qinghai and Canada; and community representatives, with participation

of Mongolian, Tibetan, Yughur, and Han nationalities ("Northwest Minority Mother-Tongue Preschool Education Feasibility", 2011). A Deweyan perspective on research on quality education for development of the nationalities of western China would support deepening and broadening such efforts.

To apply Deweyan perspectives further, social and economic development that is not only *for* minority communities, but *of* communities and *by* communities would seem to require the development of a significant number of individuals able to mediate successfully between two worlds: the external world of the wider society in China, which requires some specialized academic, technical, and professional knowledge and high proficiency in conversational and academic Chinese language, and the local community, which requires deep knowledge of the community, its culture, and a sophisticated command of the minority language, the registers and the genres respected by the community: in short, what is required is individuals who have received a sophisticated additive education, providing a significant basis for further development of formal education of Western China's minority communities in coming years.

NOTES

[1] China's published data on educational attainment provided raw numbers for highest level of education completed for members of social groups. Data in this form render comparison difficult among education levels and among social groups. For this reason cumulative total numbers completing each level have been calculated from these tables. For example the cumulative number for primary education completion should include *all* those who have competed primary education, and thus consists of the total of those listed under primary education and all those with highest level completed at a higher level, that is, primary + junior secondary + senior technical school + senior secondary school + junior college + university + graduate education; thus arriving at the total number of members of the population who have completed primary education. The same process is followed for calculating cumulative junior secondary completion: junior secondary + senior technical school + senior secondary school + junior college + university + graduate education are totalled to produce the cumulative number of junior secondary graduates. However, calculations are complicated by there being two upper secondary streams recorded separately: senior technical school (vocational stream) and senior secondary school (academic stream). It is uncertain which post-secondary graduates had previously attended senior technical school, and which senior secondary school, and so the two have been combined into a single category, upper secondary, avoiding this issue. For purposes of simplification, and in consideration of the small numbers involved, all three post-secondary categories have been combined into a single "Any complete post-secondary" category. While cumulative numbers per attainment level can permit intra-group comparison, comparison among social groups requires conversion to percentages. Data provided in this chapter are as a result in percent terms only. For original raw numbers, see China 2000 available electronically from China Data Online. For each level of education, stages of achievement of attainment goals are calculated, with the five stages for mass higher education based on a simplification of eight stages with band width of 2.5% (Bahry, 2011, pp. 63–64). The bandwidths for upper secondary education were calculated by doubling those for higher education, on the assumption that this would provide a necessary minimal base of students able and willing to continue to the post-secondary level. Stages for basic education were calculated by dividing the 100% target into five equal 20% bandwidths. Data from 2010 census data have been released on population by nationality and educational attainment, industry and occupation, but cross-tabulations for minority populations are thus far unpublished.

[2] Technical and Academic Upper Secondary figures are combined for two reasons: the first is that cumulative figures are calculated by adding the numbers of those with upper secondary as their highest level of attainment with those with post-secondary education as their highest level of educational attainment, who also have completed upper secondary education. It cannot be determined what proportion of post-secondary graduates completed technical and what proportion completed the academic streams of upper secondary education. Therefore, the two types of upper secondary school are not distinguished here. In addition, for purposes of comparison, it is more convenient to compare entire levels of education and not distinguish sub-types.

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APPENDICES

Appendix 1. Attainment of basic education among western nationalities, 1982–2005
(Percent of population completing each level of education)

Educational Attainment Stages	**9-year Basic Education**							
	Primary or higher				**Junior Secondary or higher**			
Stage I	**0.0-20.0**				**0.0-20.0**			
Stage II	**20.1-40.0**				**20.1-40.0**			
Stage III	**40.1-60.0**				**40.1-60.0**			
Stage IV	**60.1-80.0**				**60.1-80.0**			
Stage V	**80.1-100.0**				**80.1-100.0**			
Western Nationalities	***1982***	***1990***	***2000***	***2005***	***1982***	***1990***	***2000***	***2005***
Dongxiang	12.2	16.2	38.3	40.2	3.5	4.0	8.4	6.4
Salar	26.9	28.5	54.0	58.4	9.1	9.6	17.5	17.7
Tibetan	25.0	26.5	48.4	59.4	5.4	7.1	13.3	19.5
Bonan	22.9	28.1	50.1	61.4	8.5	11.9	18.2	22.8
Tajik	51.5	55.2	85.2	80.6	15.9	14.7	27.5	27.8
Hui	57.7	58.5	81.7	73.7	27.4	29.4	44.9	32.0
Tu	41.0	46.0	76.6	75.7	12.7	17.4	34.6	36.0
Yugur	57.6	63.1	84.9	84.4	16.5	24.0	45.0	40.4
Kirgiz	58.1	60.5	89.6	92.0	16.6	17.0	32.7	42.2
Uygur	56.4	61.3	88.3	90.8	16.9	18.0	35.3	48.1
Mongolian	70.2	69.2	92.1	84.9	30.1	34.0	54.8	53.6
Kazak	71.9	69.8	96.1	96.5	23.5	25.8	47.6	60.6
Ozbek	79.1	74.3	96.3	97.5	39.1	40.5	58.9	69.2
Xibe	87.1	78.5	97.3	96.9	44.5	45.2	65.8	72.2
Tatar	85.2	77.7	97.1	98.1	44.4	45.0	68.2	72.2
Russian	81.2	78.5	96.2	98.9	49.0	55.6	73.7	84.4
Total CHINA	68.1	69.8	90.5	86.0	28.2	32.6	52.3	52.7

Source: Percentages calculated from Tables 2–3, China, 1982, 1990, 2000, 2005

Appendix 2. Attainment of non-compulsory upper and post-secondary education among western nationalities, 1982–2005 (Percent of population completing each educational stage)

	Cumulative Educational Attainment by Level of Education System (%)							
Educational Attainment Stages	**Upper Secondary or higher**				**Post-secondary**			
Stage I	**0.0-5.0**				**0.0-2.5**			
Stage II	**5.1-10.0**				**2.6-5.0**			
Stage III	**10.1-20.0**				**5.1-10.0**			
Stage IV	**20.0-30.0**				**10.1-15.0**			
Stage V	**> 30.0**				**> 15.0**			
Western Nationalities	*1982*	*1990*	*2000*	*2005*	*1982*	*1990*	*2000*	*2005*
Dongxiang	0.8	1.2	2.4	1.7	0.1	0.1	0.4	0.5
Tajik	4.4	5.4	10.8	6.2	0.4	0.7	2.3	1.3
Salar	2.5	3.2	6.4	4.7	0.5	0.7	1.6	1.8
Bonan	2.7	4.7	7.9	8.5	0.4	0.8	1.5	2.3
Hui	8.1	9.4	15.9	9.5	0.8	1.5	4.1	3.2
Tibetan	1.4	2.5	5.5	9.1	0.2	0.4	1.4	3.8
Tu	3.1	6.0	12.4	11.8	0.5	1.1	3.6	4.1
Kirgiz	5.1	6.8	13.1	11.3	0.4	0.9	3.2	4.3
Uygur	4.6	6.0	10.7	12.3	0.4	0.9	2.7	5.0
Yugur	5.2	9.5	18.2	14.4	0.6	2.2	5.2	6.9
Kazak	6.3	9.4	17.2	22.5	0.6	1.2	4.1	8.9
Xibe	15.0	15.9	24.8	40.2	1.8	3.2	8.5	12.0
Mongolian	10.3	12.2	20.1	28.2	1.0	1.8	5.2	14.5
Ozbek	15.3	20.2	30.9	35.9	2.9	4.6	10.6	16.7
Russian	17.8	23.4	38.7	52.7	2.8	5.0	13.9	23.1
Tatar	19.3	23.0	37.0	44.4	5.0	6.2	14.0	27.8
Total CHINA	8.2	9.3	15.8	20.2	0.7	1.4	3.8	6.8

Source: Percentages calculated from Tables 2–3, China, 1982, 1990, 2000, 2005

Appendix 3. Student population at each level of education by nationality in Xinjiang Uygur autonomous region, 2011–2012 (%)

Year	*Preschool*		*Compulsory*				*Post-Compulsory*	
			Primary		*Jr. Sec*			
	Minority	*Han*	*Minority*	*Han*	*Minority*	*Han*	*Minority*	*Han*
2011	66.3	33.7	67.3	32.7	62.3	37.7	43.9	56.1
2012	67.5	32.5	68.4	31.6	62.8	37.2	45.1	54.9

Source: Xinjiang Jiaoyu Nianjian, 2011, 2012

YANBI HONG

4. GENDER INEQUALITY AND ETHNICITY

Educational Stratification in Western China, 1949–2004

INTRODUCTION

From the 1980s on, numerous research studies in China and oversea began to focus on China's market transition and social stratification, as the socialist state, market transition, and economic continuing growth made China the ideal context to examine various theories and basic questions about social stratification. In the educational stratification and inequality literature, gender, together with race/ethnicity and class, is one of the most important factors (McCathy, 2000). In recent decades, the gender educational gap has changed greatly. From the early 1990s, girls in western societies (developed countries) began to consistently outperform boys in most areas and at all levels of the educational systems (Giddens, 2006: 716). In the long run, that implies that the inverted gender gap from favoring males to favoring females may appear in the developing countries. However, to date, in many studies about Chinese class and gender stratification, relative fewer scholars have paid attention to gender educational inequality in ethnicity.

This article aims to explore the different patterns of gender inequality between the ethnic majority and minority in western China. From three major theoretical perspectives that emphasize economic growth, state policy, and cultural conflict respectively, the author examines the different trajectories and status quo patterns of gender educational inequality between ethnic minorities and the Han majority. Using large sampling survey data in western China, the analyses were conducted in two phases. The first part outlined the development of gender educational stratification in the second half of the 20th century in ethnicity. The second part analyzed the current ethnic gender inequalities of adolescents in the enrollment of basic/compulsory education and transition to academic senior secondary education.

PERSPECTIVES ON GENDER STRATIFICATION IN ETHNICITY

In the bulk of the literature in gender inequality, there are three main explanations. The first one focuses on the influence of industrialization and economic growth. The second one emphasizes the power of state policy and its ideology. And the third

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one pays more attention to the cultural conflicts among groups and their effects on gender inequality.

Modernization and Economic Growth

Modernization theory argued that the ascribed inequalities, remnants of traditional structures, including gender, ethnicity, and class origin, were likely to decline as meritocracy prevailed with industrialization and economic growth as its indicator. They believed that this kind of tendency advanced across countries and social institutionalisms (Treiman, 1970; Forsythe, Korzeniewicz, & Durrant, 2000).

In educational attainment, this declining trend is thought to be driven by a micro-level process: better economic circumstances erode incentives for families to make different investment decisions in children on the basis of gender (Hannum, 2005). The premise of this argument is similar to the rational action theory, which emphasizes the rational considerations and cost-benefit analyses procedures for individual/familial educational decision making (Breen & Goldthorpe, 1997). It is essential for a poor family to make a decision about which child, if they have more than one child, goes to school or continues their education. In developing countries, such kinds of decisions persistently and negatively shaped the type and level of girls' education (Stromquist, 1989). In a resource constraint circumstance, especially in rural areas, most Chinese parents prefer to invest in boys' education, as they think, it will return more benefits (Hannum, 2005). With this standpoint, gender inequality promises to decrease as the resources increase associated with economic growth.

However, Boserup and her proponents posed an alternative prediction in her "women in development" (WID) framework. They argue that economic growth during the initial stages of development is characterized by a growing gap between men and women and that such a gap only begins to diminish once countries develop beyond a certain threshold. Only in the long term, the gender gap begins to narrow, as expected under the modernization thesis (Forsythe et al., 2000). This argument, at macro level, is similar to Kuznets' "inverted U curve" rather than the maximum maintained inequality (MMI) hypothesis, as the former predicted that social inequalities grow in the earlier stages of one country's development, later stabilize, and finally narrow in later phases of economic growth (Kuznets, 1955); while the MMI was more pessimistic which argued relative educational attainment structure (the gap) does not change much though the whole schooling years increased (Raftery & Hout, 1993).

Using time-series aggregate data from 1960 to 1985 for Bangladesh, the Philippines, and South Korea, Lantican and her colleagues (1996) confirmed the inverted U tendency in gender inequalities in elementary education. Hannum's research on gender educational inequality in rural China, in some sense, also

supported the inverted U curve trend. She claims that girls' educational opportunities are more sensitive than boys' to household economic circumstance, and the market transition and economic growth slowed the progress toward gender equity rather than accelerated it (Hannum, 2005).

Hence, our question is whether the gender inequality patterns follow the same trajectory in various ethnic groups as modernization thesis expected across cultural borders or suffer the ceiling effect as MMI predicted.

State Policy and Ideology

The second explanation emphasizes the egalitarian ideology impacts of state policies, particularly in socialist states. Before the economic reform, the socialist state of China set egalitarianism as one of its main ideological goals. In order to obtain educational equality, the state intervened directly with a mass education program (low tuition or free), expansion of basic education, and even special administrative methods (Deng & Treiman, 1997). This is a distinguished way to obtain educational equality from industrialization and economic growth.

Zhou (2004) documented that the Chinese persons' life chances fluctuated closely with the state policy changes and political movements, especially before reform. In his analyses, we observed a continuous decrease of gender inequality through the historical periods from 1949–94 in the basic level of education (Zhou, 2004, 86). However, with aggregate data from the 1990 census and a 1985 survey, Hannum and Xie (1994) reported that periods with a strong emphasis on equality were indeed characterized by sharp decreases in gender educational inequality, while periods with a focus on economic development were characterized by increases or slow decreases in gender inequality.

In the western world, scholars have argued that a significant decline of gender educational inequality, compared with class inequality, is mainly due to the political mobilization (women movement) and the lack of the privileged groups' counter- mobilization (Karen, 1991, 2002; Giddens, 2006, 718). Nevertheless, we seldom observed such a kind of women's movement in China. This reinforced the strong influence of the state policy and egalitarian ideology on gender equality. For instance, the policy on maternity leave established in 1951 was very generous, even according to today's standard and practice in the industrial welfare states (Zhou, 2004, 226).

In China, another important issue of state policy on gender inequality is the one-child policy. Some scholars consider that the one-child policy has reduced the gender educational gap significantly in urban China (Tsui & Rich, 2002). However, other scholars argued that there was little evidence for the explanation that the sharp declines in gender inequality results from parallel declines in fertility on national and rural levels (Hannum, 2005; Hannum & Xie, 1994). Under the former argument, as

the one-child policy is not applied to the ethnic minorities, the female in minorities expects much more disadvantages than their counterparts in Han.

Culture and Ethnicity

The third perspective paid more attention to the gender culture, interaction between gender and ethnicity, and their effects on gender educational inequality. Some students view the gender culture as an important factor in gender inequality. Taking the traditional Chinese pattern of male dominance in trade of Singapore and Hong Kong as examples, Boserup argued, "Cultural traditions…seem to be a more important factor in determining the place of women in the modern trade sector than is the stage of general 'modernization' achieved by the country" (Boserup, 1989, 97). Examining gender educational inequality trends in third world countries, Stromquist (1989) suggested that the cultural norms and division of labor within the home determined the low educational attainment of girls. Gillborn (1997) reported that Teacher stereotypes concerning a lack of support for the education of young Asian females undermined those girls' school achievement in UK. However, Kfir (1988) reported that Israeli female students had an advantage in the curricular tracking, particularly when Asian and African girls are compared to Asian-African boys. These studies imply that gender inequality may exhibit different features in different cultural circumstances. Then not surprisingly, Ogbu's oppositional culture theory emphasizes the interplay between gender and ethnicity.

Ogbu (1991) pointed out that involuntary immigrants' low educational attainment should be explained by their historical experience, e.g., blacks' slavery history in US. This kind of experience made those ethnic minorities "distrust" the educational influence to their social mobility, and then enforced their own culture through resisting the dominant groups' culture which relates to school culture greatly. Those who work hard in school would feel great pressure as being viewed "acting white". In West Indies, Gibson found that black females are more academically successful than black males and immigrants are more successful than natives. She suggested the similar explanations to both the phenomena, which argued that boys were obliged to reject or defy the values and behaviors required within the mainstream system in order to gain respect and status within their own cultural/ethnic group, while girls felt no similar pressure (Gibson, 1991).[1]

In the following three sections, the relative Chinese context is to be discussed. And, on the previous theoretical basis, five hypotheses are to be proposed.

URBAN-RURAL DISPARITY

Incentives for education in rural China differ essentially from those in urban areas due to several institutional differences. First, sons are the main support to their old parents in rural areas. Second, the uncertainties of the household responsibility system and increasing cost of education in the market transition reinforced the

priority of sons (Byron & Manaloto, 1990; Hannum, 2005). Thus, the urban-rural disparity is one of the most important elements to affect the educational stratification of gender and ethnicity.

The ethnic minorities in China are located in large areas, most in frontier and less developed rural areas, with low density in west and north regions. Of the 58 million poor people of China in 1997, 60 percent of those were ethnic minorities (Teng & Wang, 2002, 188). After the Cultural Revolution (1976), the gap between urban and rural cohorts' schooling was mostly kept around 3 years (Liu, 2005, 211–212). Compared with national average 8 schooling years, this gap obviously was large. As most of the ethnic minorities lived in the north and west frontier rural areas, they were the most disadvantaged from the urban- rural disparity. The data from the 2000 census showed that 78.9 percent of minority population made a living in the first sect (agriculture, forestry, animal husbandry and fishery), which is higher than the national average with 14 percent (Huang et al., 2004, 294). Meanwhile, the educational investment from local government and familial capability to pay for tuition in those areas are lower than those in the developed east coastal regions. Ethnic groups residing in the more developed North and Northeast regions of China with strong economic and cultural foundations (e.g., Russians, Koreans) often get comparable educational attainment to those of the Han (Postiglione, 1992). In contrast, most other ethnic groups residing in the western interior display much poorer indicators. Under the modernization perspective, I proposed:

Hypothesis I. The gender inequality in urban areas declined much faster than the progress in rural areas.

Hypothesis II. The gender inequality in Han declined much faster than the one in ethnic minorities.

Hypothesis III. A big portion of difference in the gender inequality between Han and ethnic minorities is due to the urban-rural disparity.

POLITICAL PERIODS

In the last decades, Chinese society and its people have experienced dramatic changes and fluctuation. The total educational opportunities, the male-female differentials, and the Han-minorities gaps varied from period to period. According to the economic development and the ideological orientation, various classifications of the latter half of 20 century all agree that the Cultural Revolution was a watershed (Hannum & Xie, 1994; Zhou et al., 1998).

Similarly, the development of China's educational policies toward ethnic minorities also experienced three major periods divided by the Cultural Revolution. In the first period, from 1949 to 1966, official policy gave priority to the training of minority teachers and cadres. A second priority was the development of primary schools and adult education for raising the cultural standard of the population. The second period was the Cultural Revolution, in which ideology of class struggle dominated the minority policy. Minority language and culture were ignored or were

the targets of attacks. The educational opportunities during this period expanded, particularly at the basic level, but the quality suffered. The third period mainly aimed to cultivate human resources for modernization and economic development (Postiglione, 1992).

Table 1. Cohort categories

Birth year	*Enrollment year*	*Age in 2004*
1939–52	1946–59	52–65
1953–58	1960–65	46–51
1959–70	1966–77	34–45
1971–80	1978–87	24–33

Source: Revised version of Zhou et al. (1998)

Combining the above classifications in different dimensions, this article adopts a division of four periods (Table 1). Though the first and second period both emphasized the ideology of equality, in the second period, as a result of the Great Leap Forward, the economic development was severely disrupted and educational opportunities at senior secondary schools and colleges shrank (Zhou et al., 1998). In the Cultural Revolution, scholars proposed the term of "destratification" to summarize features of social stratification and inequality (Parish, 1984), and the gender educational inequality decreased much in the egalitarian political climate (Hannum & Xie, 1994). In the economic reform era, although the education system expanded dramatically, with decentralization of financial investment, some students argue that females and ethnic minorities were disadvantaged or the equality trend slowed in the transition (Hannum, 2005; Postiglione, 2006). Thus the female of minorities were expected to suffer most in the economic recession and reform era.

Hypothesis IV. The females of ethnic minority get the least education in the reform era.

CULTURAL DIFFERENCES AMONG ETHNIC GROUPS

At the end of the 19th century and the beginning decades of 20th century, there was a curious phenomenon called "employed studying" (*gudu*) in Qinghai and Xikang (now western Sichuan) which indicated the ethnic minorities' opposition to the Han culture[2] (Yan, 2007). Throughout the PRC epoch, the ethnic groups with more similar culture to Han (e.g., Manchu) obtain more education opportunities than others (Postiglione, 1992). Qian argued that the education to ethnic minorities is for modernization and conflicts with their own traditional cultures (Qian, 2005). The ethnic stratification theories originated in western immigration societies accounting for the processes people of different ethnic groups confronted with each other

(Postiglione, 1983). Similarly, with the development of market transition and the program Western Development in China, the increasing interactions among ethnic groups generated more integration and understanding to each other as well as conflicts. Hence, under Ogbu's oppositional culture theory, I advanced

Hypothesis V. Ethnic minority females are expected to have better educational achievement than males compared with their counterparts in Han.

In the proceeding sections, the above hypotheses are to be tested with sampling dataset from western China.

DATA VARIABLES AND MODELS

The data used in this article are from the sampling survey of *Monitoring on Social and Economic Development in the Western Regions of China* (hereafter referred to as Western Survey), which included 41222 households and more than 167000 individuals' data of 11 western China provinces.[3] The survey adopted stratified multi-stage and probability proportionate-to-size sampling, and the data was collected from July 2004 to February 2005 (NRCSTD & Fafo, 2006). I use the sub-sample of those aged above 24 to examine the time varying gender stratification from 1949 to 2004, and adopt those aged from 7 to 22 with valid response on all relevant variables to analyze the temporal gender patterns in ethnicity.

To compare with Hannum's (1992) studies, the enrollment model includes those children aged 7–14 (N=21095). The transition models use an extract of youths aged 16–22 (N=12305), in order to include those who had got access to academic senior secondary schools from 1999, the beginning year of higher education expansion. The following tables and figures are all calculated from the western survey data, with all the results weighted on.

The dependent variables are enrollment or transition to different levels of education. Those who succeed in enrollment or transition are valued 1, while those who failed are valued 0. The independent and covariate variables are as follows:

Gender, male is taken as reference group.

Ethnicity, is classified into ethnic minority and Han.

Urbanicity, I collapsed city and town into one category compared with rural areas, and substitute the missing values with location registry types (huji).

Geographical Residence, the 11 western provinces are divided into Northwest and Southwest (as reference group) regions, the former includes Inner-Mongolia, Shanxi, Gansu, Qinghai, Ningxia and Xinjiang, the latter includes Guangxi, Chongqing, Sichuan, Guizhou, and Yunnan.

Father's occupational status, the occupational categories in Western Survey used the revised official statistics categories. I classify those categories into five groups, from high strata status to low ones: high level white collars, low level white collars, labor & service workers, peasants (reference group), and other occupations (the results of other occupations was not reported as its proportion is very small).

Father's education, is a continuous variable indicated by his years of schooling.

The sibship size, I classify it into three categories: one child (reference category), two children, and three children and above.

Age, the models control the linear and quadratic effects of age.

The statistical analyses apply the logistic model, with the equations of the form:

$$\log_e\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \sum_k \beta_k X_{ik}$$

p_i is the probability that the ith respondent will succeed in the enrollment or transition, X_{ik} is the value of respondent on the kth independent variable, β_k are the parameters to be estimated from data (Breen & Jonsson, 2000; Mare, 1980).

GENDER INEQUALITY TREND IN ETHNICITY, 1949–2004

Although they were two of the main dimensions of social stratification, gender and ethnicity played relatively minor roles in the history of PRC, particularly before reform in which the class struggle dominated. Because of the data limitation, I only examine the gender gap in Han and minorities, with the ethnic gap as a reference pattern. Nested logistic regressions by periods are adopted in analyses.

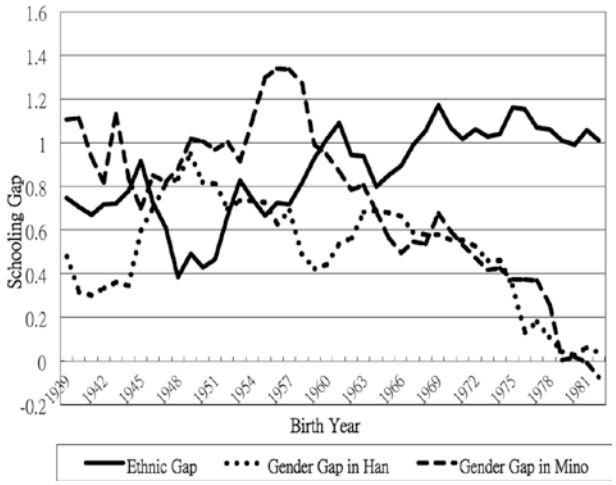

Figure 1. Development of schooling gaps by gender and ethnicity (five-year average)

Figure 1 delineates the trend of gender inequality and ethnic inequality. To discover the tendency and smooth the extreme values, a five-year average is used in the figure. The general development of both gender inequality in Han and minorities of schooling are declining, especially sharply in the reform era. However, the gender gap in minorities began to decrease later than Han. This might indicate that the state

policy toward ethnic minorities to raise the level of education benefited males much more than females. The linear declines in the reform era show more similarity than difference between ethnic groups.

Compared with ethnic gap, the gender gap declined steadily in the early reform era. Moreover, the minority females seemed to outperform males on average educational attainment in the tail of curve. In contrast, meanwhile, the ethnic differential was more likely to keep on one-year gap which implied the largest stable gap from 1949 to nowadays. Hannum (2002) suggested that the minorities benefited from economic growth and educational expansion originally in reform and market transition, however, were disadvantaged by larger structural changes later. While Postiglione (2006) doubted that original benefits to the minority members. Instead, he noted the ironic phenomenon that while the market transition increased the educational choices available, it had made these choices more a function of poverty, gender, and ethnicity than in the redistributive economy of the pre-reform period.

As Figure 1 revealed, on one hand, in the early reform period, the gender gaps both in Han and minorities declined significantly. On the other hand, the ethnic gap more likely increased rather than diminished simultaneously. This discrepancy implies that the social inequalities in different dimensions develop in different ways associated with market transition and economic growth.

In order to control the effects of urban-rural disparity, the variables of urbanicity, and interaction between gender and urbanicity (M2) are added into the baseline models (M1) which only include gender, ethnicity, their interaction, and macro-region.[4] The junior enrollment distinguish those who enrolled into junior secondary schools from those did not. The senior secondary education includes academic education as well as vocational education (e.g., *zhongzhuan, zhigao, and jixiao*).

Firstly, the female negative coefficients were a lot greater in M2 than those in M1 (Table 2), which indicates that the gender inequality in urban areas was much smaller than the one in rural areas from the 1960s, when the urban-rural dual structure began to form and had influenced the lives of Chinese deeply (Wu, 2007). From the second period on, the gender gaps of both the enrollment and transition in urban areas were significantly smaller than those in rural areas. The odds ratio of rural female to male in junior enrollment was -.684, -.617, -.555, and -.398 respectively in four periods. In contrast, the gender odds ratio in urban areas was -.604, -.176, -.195, and .129 orderly. This showed that, in the early reform time, the urban females even were 14 per cent (exp[.527-.398]-1=.14) more likely to obtain junior secondary education than the urban males. The smaller gender gaps in transition supported the argument that gender inequality was more serious in the low level education rather than at the high level (Lavely et al., 1990).

Secondly, we find that the minority was significantly negative in the junior secondary education enrollment (hereafter referred to as Enrollment) except in the 1960–66. But the negative coefficients decrease much in M2, which suggests that

Table 2. Logistic regression of gender and ethnic inequality in junior and senior secondary education attainment in different cohorts, 1946–87

Junior enrollment	*1946–59*		*1960–65*		*1966–77*		*1978–87*	
	M1	*M2*	*M1*	*M2*	*M1*	*M2*	*M1*	*M2*
Intercept	–.828	–1.214	–.091	–.383	.432	.091	.524	.150
	(.027)	(.032)***	(.032)	(.036)***	(.021)	(.024)***	(.023)	(.028)***
Female	–.339	–.684	–.336	–.617	–.421	–.555	–.212	–.398
	(.041)	(.060)***	(.046)	(.057)***	(.028)	(.033)***	(.032)	(.038)***
Minority	–.220	–.009	–.078	.076	–.490	–.335	–.509	–.385
	(.064)	(.991)	(.071)	(.076)	(.043)	(.047)***	(.044)	(.048)***
Female*Minority	–.088	.110	–.497	–.418	–.009	–.039	–.125	–.102
	(.112)	(.121)	(.119)	(.127)**	(.066)	(.069)	(.066)	(.069)
Northwest	.838	.628	.950	.797	.805	.680	.880	.848
(Southwest=0)	(.038)	(.041)***	(.046)	(.048)***	(.028)	(.029)***	(.033)	(.034)***
Urban		1.573		1.292		1.380		1.055
		(.055)***		(.069)***		(.048)***		(.046)***
Female*Urban		.081		.439		.360		.527
		(.085)		(.101)***		(.065)***		(.065)***
Minority*Urban		–.196		–.085		–.064		.111
		(.132)		(.161)		(.091)		(.082)
Goodness of Fit								
Sample Size (N)	14526		10097		27242		23671	
-2 Log of Likelyhood	17789.9	16261.5	13409.6	12445.4	35245.7	32596.3	30000.1	28075.9
Model χ^2 (df=4, 7)	571.2	2099.7	586.2	1550.3	1415.9	4065.3	1178.7	3102.9

Table 2. (Continued)

Senior transition	*1946–59*		*1960–65*		*1966–77*		*1978–87*	
	M1	*M2*	*M1*	*M2*	*M1*	*M2*	*M1*	*M2*
Intercept	−1.100	−1.624	.821	−1.158	−.970	−1.595	−1.003	−1.703
	(.052)	(.074)***	(.049)	(.061)***	(.029)	(.040)***	(.030)	(.046)***
Female	−.129	−.323	−.023	−.443	−.051	−.273	−.071	−.307
	(.076)	(.153)*	(.067)	(.110)***	(.037)	(.060)***	(.040)	(.070)***
Minority	.050	.149	−.155	.072	−.217	−.025	−.280	−.123
	(.117)	(.154)	(.108)	(.126)	(.064)	(.082)	(.065)	(.086)
Female*Minority	−.519	−.594	−.233	−.129	−.011	−.124	.165	.120
	(.238)	(.255)*	(.202)	(.214)	(.104)	(.113)	(.100)	(.107)
Northwest	.472	.356	.485	.366	.547	.459	.452	.429
(Southwest=0)	(.066)	(.069)***	(.061)	(.063)***	(.034)	(.036)***	(.037)	(.039)***
Urban		1.078		.885		1.382		1.276
		(.088)***		(.080)***		(.049)***		(.055)***
Female*Urban		−.054		.400		.204		.232
		(.172)		(.137)**		(.075)**		(.082)**
Minority*Urban		.247		−.355		−.027		.074
		(.221)		(.199)‡		(.110)		(.106)
Goodness of Fit								
Sample Size (N)	4603		5029		16203		14733	
-2 Log of Likelyhood	5398.6	5159.9	6387.4	6132.4	19930.8	18233.5	17567.5	16262.5
Model χ^2 (df=4, 7)	59.9	298.7	75.0	330.1	314.3	2011.6	174.3	1479.4

*Note: ‡ < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Standard errors are in the parentheses*

the urban-rural disparity explains a big proportion of ethnic gap. It is consistent with the Figure 1 to find out that the gender inequality decreased gradually in the enrollment, while the ethnic inequality increased significantly from the Cultural Revolution. In transition, the gender inequality experienced rise and fall. But the ethnic inequality was always insignificant. Certainly, the policy effects (such as affirmative action towards ethnic minority) should be taken into consideration when interpreting this.

Thirdly, except the enrollment in the second period, and transition in the first period, the gender inequality did not differ significantly between the minority and Han. In the second period, the minority females seemed to be greatly disadvantaged from the sluggish economy circumstance compared with their counterparts in Han (34% less likely to enrollment, .34=1-exp[-.418]). The minority females entering schools in the first period also suffered more than the Han females in the transition (42% less likely to transition, .42=1-exp[-.549]), as some of them confronted the economic depression and educational shrink when graduated from junior secondary schools in early 1960s. And the ethnic differentials of gender inequality were not affected much by the urban-rural dual structure, as there were no significant changes in the coefficients of ethnic-gender interaction between M1 and M2.

In sum, the results show two distinctive patterns between basic and secondary educational attainment. On one hand, at the basic level of enrollment, we observed a gradual decline of gender gap and inequality. On the other hand, transition rates into senior secondary school exhibited a strong, nonlinear trend of gender inequality. And there was no noticeable ethnic difference in gender educational inequality either in basic or secondary education. Moreover, the outcomes demonstrate that the largest inequality lies between urban and rural areas, and the significant disequilibrium between northwest and southwest seems to be enlarged in the early reform than before.

GENDER INEQUALITY IN BASIC AND ACADEMIC SECONDARY EDUCATION BY EHTNICITY

As mentioned above, the enrollment model and transition model analyze the recent adolescents' educational attainment for age 7–14 and age 16–22 separately. The models incorporate age, macro-region residence, urbanicity, father's education, father's occupational status, and sibship size as covariate variables. The interactions between gender with ethnicity, urbanicity, and sibship size respectively are also examined. The description of the variables are in Table 3, which exhibited a higher proportion of Han in labor worker & service on father's occupation, in urban and northwest area in residence. The father's schooling of Han children is 0.6 year higher than those of ethnic minorities. First, the general enrollment and transition models are examined (Table 4). Then I used separate ethnic transition models to compare the ethnic differences in gender to obtain more details as well as to test the sibship size and urbanicity effects on gender stratification (Tables 5 and 6).

Table 3. Description of variables

Variables	*Minorities*	*Han*
Female %	46.17	44.94
Age	14.35	14.43
Father's occupation %		
High level white collar	5.17	5.55
Low level white collar	1.93	2.49
Labor worker & Service	26.64	43.43
Peasant	65.31	47.67
Others	0.95	0.87
Father's Education (schooling)	6.58	7.23
Sibship size %		
One child	46.82	58.58
Two children	34.42	31.06
Three & above children	18.76	10.35
Urban %	26.98	38.50
Reside in Northwest %	25.04	33.98
Sample Size	8251	27020

Source: Sub-sample of the aged 7–22 in the western survey

In the transition model of this section, only the transition to academic senior secondary education is included. Academic senior secondary education is essential for higher education, as with the social development and educational expansion, the qualification of entrance into high level white-collar employment has transferred from vocational higher education to regular (academic) higher education gradually (Liu, 2005, pp. 316–326).

In the enrollment model (Table 4), we find that the gender inequalities both in Han and minorities are not significant which indicates, generally speaking, that girls obtain equal educational opportunity with boys'. Given that females were still significantly disadvantaged in the data collected in 1992 (Hannum, 2002), my analysis shows that the gender equality has improved greatly in the last decade of the 20th century at the basic level education. On the whole, those ethnic minority peasants' children who lived in southwest rural areas suffered most.

However, the female negative in transition is significant as well as the interaction between gender and ethnicity. In other words, there are different ethnic patterns of gender inequality in the transition which are examined in the following separate ethnic models (Tables 5 and 6). Comparing the enrollment and transition models,

Table 4. Logistic regression for enrollment of basic education and transition to academic senior secondary education

Variables	*Enrollment coefficients (S.E.)*	*Transition coefficients (S.E.)*
Intercept	–1.886 (2.340)	7.523 (2.711)**
Female	–.170 (.132)	–.192 (.056)**
Minority	–.459 (.166)**	–.485 (.114)***
Minority*Female	–.023 (.226)	.268 (.134)*
Age	1.733 (.425)***	–.784 (.290)**
Age^2	–.111 (.018)***	.013 (.008)‡
Urban	1.149 (.197)***	1.152 (.058)***
Northwest (Southwest=0)	.635 (.133)***	.617 (.054)***
Minority*Urban	.823 (.452)‡	.189 (.135)
High White Collar	2.846 (1.274)*	.973 (.113)***
Low White Collar	2.103 (1.684)	.720 (.153)***
Labor Worker	.475 (.119)***	.402 (.055)***
Father's Education	.146 (.021)***	.114 (.010)***
Two–Sibs	.187 (.117)	–.038 (.057)
Three & Above Sibs	.633 (.178)***	–.069 (.089)
Sample Size (N)	17399	9289
-2 Log-Likelihood	2837.5	9582.6
Model χ^2 (df=15)	940.4	1986.6

*Note: ‡ < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001*

we find that the gender inequality has transferred from the basic education to the academic senior secondary education which paves the way to higher education.

In the Han majority, the female disadvantage was salient in the transition to senior secondary school, but it was not the same story in ethnic minorities. It seemed likely that the minority females outperformed males in transition to senior secondary education, at least at parity. Females both in minority and Han were not significant disadvantaged in the enrollment into junior secondary education, so I posed that the female disadvantage in Han is more serious than in minorities.

The coefficient and model of interaction between sibship size and gender were neither significant for Han nor ethnic minorities. The outcomes support Hannum and Xie's (1994) argument that there was little evidence for the fertility decrease explanation of gender inequality decline, and reinforce the conclusion that the gender inequality declined essentially in the reform period. In Han, gender inequality did not differ between the urban and rural areas as neither the coefficient nor model of

Table 5. Logistic regression of transition to senior secondary education for minorities

Variables	*Model 1*		*Model 2*		*Model 3*	
	Coe.	*S.E.*	*Coe.*	*S.E.*	*Coe.*	*S.E.*
Intercept	8.737	(6.34)	8.749	(6.34)	8.660	(6.35)
Female	.096	(.120)	.215	(.176)	.383	(.176)
Age	–.998	(.677)	–1.010	(.678)	–1.003	(.679)
Age^2	.021	(.018)	.021	(.018)	.021	(.018)
Urban	1.361	(.124)***	1.361	(.124)***	1.606	(.167)***
Northwest (SW=0)	.538	(.135)***	.542	(.135)***	.529	(.135)***
High White Collar	1.191	(.225)***	1.184	(.225)***	1.188	(.225)***
Low White Collar	1.121	(.341)**	1.117	(.341)**	1.093	(.343)**
Labor Worker	.528	(.138)***	.529	(.138)***	.510	(.138)***
Father's Education	.034	(.022)	.035	(.022)	.033	(.022)
Two–Sibs	.092	(.134)	.165	(.181)	.091	(.134)
Three &+Sibs	.094	(.165)	.250	(.225)	.091	(.165)
Female*Two Sibs			–.162	(.269)	——	——
Female*Three Sibs			–.330	(.326)	——	——
Female*Urban			——	——	–.529	(.239)*
Goodness of Fit						
-2 Log-Likelihood	1784.6		1783.5		1779.8	
Model χ^2	324.4		325.5		329.3	
DF	12		14		13	

*Note: ^{t} < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Sample Size (N) = 1956*

interaction between female and urban were significant. In other words, compared with the boys, those rural girls graduated from junior secondary schools were not likely to experience significant disadvantages compared with those urban girls in the transition to senior high schools. Surprisingly, in contrast, the minority females were disadvantaged significantly in urban areas but not in rural areas in transition. Further work needs to be done to explore the mechanisms behind the relationships of these figures.

Another factor I suggest we pay attention to is age. Neither the linear and quadratic effects of age in minority are significant, while there is significant negative for the linear effect of age in Han. As mentioned above, the sample includes those who were supposed to transit into academic senior secondary schools from 1999 to 2004. Then the results indicate that with the higher education expansion, the transition opportunity to academic senior secondary school for Han increased, but not for minorities. In other words, the different age patterns imply that the higher

Table 6. Logistic regression of transition to senior secondary education for Han

Variables	*Model 1*		*Model 2*		*Model 3*	
	Coe.	*S.E.*	*Coe.*	*S.E.*	*Coe.*	*S.E.*
Intercept	7.473	(3.01)*	7.513	(3.01)*	7.418	(3.01)*
Female	–.204	(.057)***	–.166	(.072)*	–.099	(.093)
Age	–.770	(.322)*	–.776	(.322)*	–.768	(.322)*
Age^2	.012	(.009)	.012	(.009)	.012	(.009)
Urban	1.162	(.059)***	1.163	(.059)***	1.230	(.077)***
Northwest (SW=0)	.620	(.060)***	.622	(.060)***	.617	(.060)***
High White Collar	.905	(.130)***	.905	(.130)***	.907	(.130)***
Low White Collar	.648	(.172)***	.646	(.172)***	.650	(.172)***
Labor Worker	.370	(.060)***	.370	(.060)***	.370	(.060)***
Father's Education	.133	(.011)***	.133	(.011)***	.133	(.011)***
Two–Sibs	–.068	(.063)	–.040	(.084)	–.069	(.063)
Three &+Sibs	–.133	(.107)	.065	(.140)	–.133	(.107)
Female*Two Sibs			.065	(.125)	——	——
Female*Three Sibs			.235	(.214)	——	——
Female*Urban			——	——	–.164	(.117)
Goodness of Fit						
-2 Log-Likelihood	7765.5		7764.2		7763.5	
Model χ^2	1608.9		1610.2		1610.8	
DF	12		14		13	

*Note: ‡ < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Sample Size (N) = 7334*

education expansion did not benefit much to the ethnic minorities' educational opportunities.

To other factors, the urban-rural gap is bigger in minorities than the one in Han; the class inequality is much severer in minorities than the differential in Han; and the father's education is significant in Han but not in minorities. Those results show that there are different patterns between Han and minority in the educational transition other than gender.

CONCLUSION AND DISCUSSION

From the preceding delineations and analyses, we summarize as follows:

At first, from the foundation of PRC on, the gender schooling gap declined a lot both in Han and ethnic minorities, especially sharply and steadily in the early reform

era. The gender inequality in the basic education decreased continuously throughout the Reform period.

Secondly, the gender inequality declined much faster in urban areas than in rural areas. The largest gap and inequality of educational stratification still lay in urban-rural disparity that affected the rural girls' educational opportunities strongly. The hypothesis I is justified. However, consistent with previous research (Hannum, 2002), the tendency of gender inequality in minorities seems not significantly differ from the Han in basic education, hence there is little evidence to support hypothesis II and III.

Thirdly, in the early reform era, the female of minorities suffered most while they were not disadvantaged significantly in the later period. In late 1990s and early 2000s, there was no significant gender inequality in the enrollment of basic education (1–9 grades) both for Han and minorities. However, in the transition to academic senior secondary education, the Han females were disadvantaged much but not for minority females. However, the results do not show evidence that females outperform males in ethnic minority as expected by oppositional culture theory. These outcomes demonstrate that the hypothesis IV is evidenced partly, only in the early reform era, as the Han females seem to suffer more in later period. However, we do not have strong confidence to support hypothesis V.

From the above findings, this article shed light on the field of gender inequality across different ethnic groups. Consistent with the modernization thesis, gender inequality in urban areas declined much faster than that in rural areas. But it was not the same case for ethnic inequality. In many western societies, it is found that gender and ethnic inequality declined faster than class inequality (Karen, 1991; Archer, 2003, 21). This suggests that the relationship between economic development and social inequality is much more complicated than the simple logic of modernization thesis holds that industrialization eliminates ascribed inequality. Considering the resource transfer, one reasonable explanation is that the transfer from male to female in family is much easier than from one family/group to others.

Gender inequality seemed to vary in different societies. Lantican et al. (1996) reported the curvilinear trend of economic development and gender inequality, while the inverted U shape for development of gender educational inequality rather than income inequality in some countries. And in some cases, the gender inequality decreased linearly in secondary education but not in college enrollments (Lantican et al., 1996). Forsythe et al. (2000) also suggested that different measurement of gender inequality would lead to widely different conclusions. And the great varieties in ethnic minorities make it impossible to advance a general principle of gender inequality to suit any specific minority. Thus, further studies should pay more attention to particular ethnic groups and the mechanisms in detail.

Nevertheless, this study provides some suggestions for educational policies concerning ethnic minorities and women. First, the most serious inequality in

western China is not among ethnic groups, but rather between urban and rural areas. However, the current educational policies mainly target on ethnic gap, providing subsidies on schooling, preferences on admission, etc., based on ethnic membership. It is necessary to invest more resources in rural education system. Second, most of the ethnic minority females have obtained the enrollment opportunities in basic education, hence the next step is to improve the education quality. Only with competitive education quality, are the girls in western minority areas capable to pursuit further education, including the college. Third, this does not mean ethnic inequality is ignorable. The ethnic minorities from disadvantaged families require social support to continue their children's education, especially the girls, and finally to escape the vicious circle.

Even though the educational gender inequality has declined dramatically, or even inversed (Buchmann et al., 2008), we are still not too optimistic. It may be benefit to keep Moore's words, "Economic development may improve women's status by increasing education levels, or decreasing fertility levels, but its direct effect on women's authority positions is small or negative" (Moore, 1996). It is still a long journey to go for the gender equality.

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NOTES

[1] The core conception in oppositional culture theory is the "distrust" and "acting white". The problems "acting white" emerged, because the blacks did not trust the existing institutions dominated by whites. However, Downey proposed that the biggest weakness of the theory was it emphasized how blacks perceived limited payoff to schooling because they saw little evidence that it mattered for people like them (Downey, 2008). Then the success of Barack Obama in US presidential election strongly challenged blacks' distrustness of the existing institutions as well as the oppositional culture theory. Meanwhile another question left is why girls are more likely to trust the institutions than boys.

[2] Another important explanation of avoiding schooling was that the upper strata of ethnic minority groups worried that their children would be held back as pawns.

[3] The survey was mainly sponsored by Foreign Ministry of Norway, and carried out by National Research Center for Science & Technology for Development in China (NRCSTD) and Fafo Institute for Applied International Studies in Norway (Fafo). The 11 provinces included Gansu, Qinghai, Ningxia, Shanxi, Inter-Mongolia, Xinjiang, Yunnan, Guizhou, Sichuan, Guangxi, Chongqing. Tibet was excluded for some technological reasons. See details in NRCSTD and Fafo (2006).

[4] The dataset does not have time-series information about socioeconomic circumstance, so I only can adopt the macro region variable to control the difference in some level.

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5. THE WELFARE AND EDUCATION OF LEFT-BEHIND CHILDREN IN WESTERN CHINA

Problems, Solutions and Challenges

INTRODUCTION

A vital element in the China's economic success over the last two decades has been large-scale labor migration, an estimated 262 million workers in 2012 going from the less developed and rural areas to more developed urban and coastal locations (NBS, 2013a). A major consequence of this has been its impact on the children of migrant workers. In 2010, around 100 million, 38% of all children in China[1] (about four in every ten aged 0–17) were directly affected by parental migration, either as child migrants accompanying their parents or as children left behind in their home villages or areas. There were 35.81 million migrant children, about 26.3% of all urban children even though over 80% of the migrant children still had only a rural hukou (户口, household registration document). Nearly twice as many children (69.73 million) were left behind by migrant parents (NBS, 2013b). The term 'left-behind children' (留守儿童, liú shuǒ ér tóng) refers to those who have one or both parents working away from home for more than six months in a year. Most left-behind children (87.5%; 61.03 million) live in rural areas where they constitute 40% of all rural children (ACWF, 2013). Although leaving children behind in the process of labor migration is not a new phenomenon in China, the present scale of it is unprecedented and has raised concerns about child welfare and development.

Children accompanying their migrant parents to cities face a difficult transition to urban life, usually because they lack an urban *hukou* and encounter barriers in accessing school education. Left-behind children face a different set of problems arising from parental absence and the disadvantages of rural life. A study of migrant workers in Chongqing and the Pearl River Delta (CCR CSR, 2013, p. 6) concluded that "most research to date proves that parents' work in the city had a significant negative effect on their children" who tend to suffer from anxiety disorders, low self-esteem and behavioral problems, and are vulnerable to abuse. The situation of left-behind children has become a prominent issue though slower than that of migrant children to receive attention at both a policy and practical level, perhaps because they have been less visible. However, since May 2004, when the Ministry of Education organized a high-level meeting on left-behind children, the body of research on the psychological, social and educational impact of parental migration

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 97–119.

has grown. Much of the impact, especially that reported in popular media, is seen as negative but the picture emerging is a complex one.

This chapter examines the situation of children left-behind by parents migrating from rural areas to other parts of China for work and highlights findings from western China. It focuses on rural left-behind children (农村留守儿童) though there are also 8.7 million urban left-behind children (城镇留守儿童), 3% of the child population, who have received comparatively little research attention. The chapter begins with a profile of left-behind children in China before moving on to ask three main questions: (a) What is the overall impact of parental labor migration on the welfare and education of children left behind? (b) Whose responsibility are the welfare and education of left-behind children? (c) What solutions are needed to solve the problems of left-behind children and their families? The chapter also describes innovative solutions in Chongqing Municipality and Wuxi county in southwest China. It concludes by setting the issue of left-behind children in the context of rural disadvantage and poverty.

WHO ARE THE LEFT-BEHIND CHILDREN (留守儿童)?

Left-behind children can be found in every province in China but about half of them live in central and western areas, in six main labor-exporting provinces: Henan, Anhui, Guangdong, Hunan in central China and Sichuan and Guangxi in western China. In each of these provinces, according to the National Population Census 2010, left-behind children accounted for over 40% of the child population. Some labor-exporting areas had even higher proportions of left-behind children, for example, Chongqing Municipality in southwest China had the highest at 66.5%. More than 80% of all rural left-behind children in compulsory education were in western and central regions (Ministry of Education, 2009). In western China, 20% of all children there were left-behind, constituting 32% of all left behind children in China and higher than the national average by 3% (Western China Development Report, 2012). Nationally, an estimated 30% of the child population (84.5 million children) did not live with both parents because of parental migration for work (NBS, 2013b).

Rural workers in China migrate as a strategy for economic survival or improvement. In 2010, there were 99 million "short-distance" (本地) migrants working within their home counties and 163 million "long-distance" (外出) migrants working further afield in another province. In western China, there were twice as many "long distance" as "short distance" migrant workers though as western China develops and urbanizes, increasing numbers of workers are seeking employment closer to home. In 2011, the overall number of migrant workers leaving their own province for employment dropped for the first time in relation to within-province migration. Married rural-urban migrants are, in any case, more likely to work nearer home because of family obligations (CCR CSR, 2013) though in the context of China, this can still be a lengthy journey away. Twice as many men as women migrated

for work and the average age was 37, the largest percentage (32%) being in the 21–30 age group. Most migrant workers were employed in manufacturing and a third lived in dormitories with a further third living in employer-provided or shared accommodation (China Labor Bulletin, 2013). Only 10% of migrant workers were accompanied by their families and the majority (70%) of migrant workers' children remained at home in rural China (CCR CSR, 2013).

Left-behind children are of all ages (see Table 1) though around 50% are under the age of six (NBS, 2013b), a critical period of child development. Between 2005 and 2010 the total number of left-behind children increased by 2.42 million but not uniformly. The largest increase (47.7%) occurred in the pre-school age group while the compulsory school age group (Grades 1–9) decreased by 9.65% (AWCF, 2013). Though one in every six rural children in basic compulsory education (Grades 1–9) was a left-behind child there was considerable variation between provinces with higher proportions in western and central provinces. At the county level, the proportions of left-behind children varied even more widely, up to 80% of all rural children in some counties in western China. In many schools in western China, left-behind children have become the norm. In 2000, about 18.7% of rural children were living in households with labor migrants but by 2006, this had increased to over 33% (Lu, 2012).

The family structures of left-behind children vary according to which family member migrates: father, mother, both parents or an older sibling. In 2010, about 53% of left-behind children lived with a single parent (36% with their mothers and 17% with their fathers) and a quarter of these single-parent household also included grandparents (NBS, 2013b). Nearly half (47%) of rural left-behind children did not live with either parent; 70% of these lived with grandparents and 10.7% with family members or friends. Two million rural left-behind children (mostly teenagers) lived alone (AWCF, 2013). Some children stay in school dormitories or live with teachers in return for payment, often going home for the weekend or in school holidays. More girls than boys are left-behind by migrating parents and research has reported this variously as being both beneficial and disadvantageous for girls. A recent national report on left-behind children concludes that "with one or both parents working away from home, it is difficult for them to receive emotional support and help with studies from their families, which can be detrimental to their physical, emotional and mental health" (NBS, 2013b, p. 5). The effects of parental migration are examined more fully in the next section.

IMPACT OF PARENTAL MIGRATION ON LEFT-BEHIND CHILDREN

Media reports over the last decade have been instrumental in raising public concern about the plight of rural left-behind children, their vulnerability to abuse and neglect and their pain at separation from their parents. In addition, a growing number of research studies show that left-behind children are more likely to feel depressed, emotional, anxious, withdrawn and to have lower self-esteem than other rural

Table 1. Distribution of migrant and left-behind children by age and educational stage

Stage of education 教育阶段	*0–2 years* 幼儿	*Pre-primary* 学前教育 *0–5 years*	*Primary* 学前教育 *6–11 years*	*Junior middle* 初中 *12–14 years*	*Senior secondary* 高中 *14–17 years*	*Total (0–17 years)* 岁合计
Number of all children in China (millions) 儿童人数（百万人）	45.03 (100%)	45.02 (100%)	84.54 (100%)	46.53 (100%)	57.59 (100%)	278.91 (100%)
Total: basic compulsory education			131.07 (100%)			
Number of migrant children (millions) 流动儿童人数（百万人）	3.86 (8.57%	5.12 (11.37%)	9.29 (10.99%)	4.64 (9.97%)	12.90 (22.40%)	35.81 (12.84%)
Migrant children: basic compulsory education			13.93 (10.63%			
Number of rural left-behind children (millions) 农村留守儿童人数（百万人）	11.72 (26.03%)	11.70 (25.99%)	19.53 (23.10%)	9.95 (21.38%)	8.13 (14.12%)	61.03 (21.88%)
Left –behind children: basic compulsory education			29.48 (22.49%)			

children (Chan, 2009; He et al., 2012; Wang, Zhang, & Sun, 2006; Zhou, Sun, Liu, & Zhou, 2005).

The impact of parental migration on left-behind children is complex. It varies according to several interacting factors: which family member migrates (mother, father, both parents or older sibling), the gender and age of children, the care arrangements provided to compensate for family separation and the nature of the interaction with absent parents. The migration of mothers seems to have the most negative impact and care from grandparents and other family members does not fully substitute for the roles played by parents, according to Yao and Mao's (2008) study of the ten western provinces and regions.[2] Guardian grandparents typically have limited schooling, with more than half receiving only primary-level education. Most grandparents (70%) work and some find it difficult to provide the guidance and supervision needed by the children left in their care, or require them to assist with farming and household tasks (CYRC, 2006). Parental absence has been found to increase the workload of left-behind girls in particular (Ye & Pan, 2011).

Psychological Well-Being of Left-Behind Children

Children of all ages who were separated from parents at a younger age show more symptoms of anxiety and depression than those separated later and these effects are more pronounced for children who separated from their mothers or both parents before their third birthday (Liu, Li, & Ge, 2009; Zhao et al., 2014). Older left-behind children are more likely to benefit and less likely to suffer from parental migration than younger ones, according to Lu's (2012) analysis of national data from the China Health and Nutrition Survey, though their adolescence has also been linked to the emergence of behavior problems, with some becoming either very withdrawn or excessively aggressive (Yang, 2005). Two factors have been significantly associated with emotional and behavioral problems in left-behind children (Chi, Hu, & Shen, 2008; Fan, Su, Gill, & Birmaher, 2009): the age at which children were left by parents (the younger the age, the more marked the effect) and the length of parental absence (the longer the absence, the more negative the impact, with children feeling lonely and upset). However, the impact of parental migration is not altogether clear cut. Ren and Treiman (2013) found weak and inconclusive evidence in four provinces, including Gansu, for negative effects of parents' migration on the emotional well-being of left-behind children and suggested that kinship care in China is able to compensate for parental absence. Nonetheless, the majority of findings points to negative effects and the limitations as well as the benefits of kinship care (Hu Yang, 2013).

Loneliness, communication and "dimmed filial affection." As well as length of absence, distance from migrant parents and frequency and quality of communication with them have been linked to negative effects. Some children see their parents infrequently, if at all, over long periods. For example, from their study of left behind children in Shaanxi, Ningxia, Hebei and Beijing, Ye and Murray (2005) found that

fewer than 30% of left-behind children saw their migrant parents every year. The biggest difference between left-behind children and those living with non-migrant parents seems to lie in the emotional sphere:

> They are lonelier, and not as free to play or free from the pressures and worries about their household life and their parents' health and safety. They lack the time and opportunity for interaction with parents and peers. Clearly, non-left-behind children are seldom as disturbed in behavior and personality and are generally happier than left-behind children, who envy their happy demeanor and more complete family life. They experience their own family left as less lively more boring. (Ye & Murray 2005, p. 272)

The loneliness of left-behind children is a recurrent finding, for example, Ren and Shen's (2008) and Jian and Tian's (2010) studies in rural areas, Xiao's (2007) research in Guangxi and that of Xie, Yang, Zeng and Feng (2008) in Sichuan. From their research in Guangxi, Su et al. (2013) also concluded that loneliness was the most common and important experience among left-behind children and that those with both parents absent reported the lowest levels of satisfaction with life. A number of factors interacting factors contributed to their loneliness: being brought up by grandparents, having poor economic status, bad relationships and low frequency of communication with parents.

Communication with absent parents is a key factor affecting loneliness and isolation. Left-behind children often refer to the infrequency or limited nature of interaction with absent parents, reporting that the main topic of conversation with them, often very brief, was always their academic performance, sometimes their health and safety but rarely about feelings, leading to the conclusion that "lack of understanding about children's needs at various stages of development limits communication between them" (CCR CSR, 2013, p. 21). Both left-behind children and migrant parents are frequently reported as having difficulty in communicating with each other ("I don't know what to say"). Some left-behind children are also unwilling to talk, as one labor migrant says of her telephone calls to her ten-year old son:

> Every time I call, he is unwilling to pick up, and even if he picks up he isn't willing to say anything. I ask him questions, but he doesn't seem to want to answer, even though he is certainly complaining about his parents not looking after him. (CCR CSR, 2013, p. 61)

Left-behind children's "dimmed filial affection" was attributed by Ye and Pan (2011) to the lack of emotional interaction and the mismatch of parental focus with left-behind children's needs:

> Children had an intense desire to share and exchange their life and emotion with parents as they did before. Actually, however, children's emotion and feelings are

> almost an untouched issue in the telephone conversation. School performance is placed at the top among parents' concerns about their children. (p. 370)

Su et al. (2013) found that left-behind children in Guangxi who communicated frequently with both parents were more satisfied with life and happier than those who communicated with only one parent or none, and they suggest that parent-child communication may be a protective factor in shielding children from the adverse effects of parental absence. The importance of communication has been recognized in various initiatives taken by voluntary organizations and schools, in providing the means of communication (access to phones and Internet) and training and support for parents in improving the quality of communication.

Mental health. The risks from parental migration to the emotional well-being of left-behind children have led to an increasing focus on mental health. From a review of Chinese research and literature (2001–2008) on the mental health of left-behind children from different parts of China, Qin and Albin (2010) concluded that

> the migration of parents affects the mental health of children who are left behind in an indirect way, especially their emotions and social behavior, but controversy remains regarding the seriousness of their mental health problems. It is agreed that life events, personality, coping strategies and social support are the main factors that are predictive of the mental health of such children. (p. 14)

A key element of psychological health is self-esteem (Hou & Xu, 2008; Wang et al., 2014). In a study of junior middle students in Shaanxi province, Zhan, Li, Liu, and Zhang (2014) found that having both parents as migrants significantly reduced left-behind children's self-esteem, more so for girls. Variation in local conditions, economic levels, family situation and age and gender of the left-behind children, as well as limitations in the infrastructure of welfare, present challenges in providing mental health support for them: "There is no nation-wide strategy or policy in China today to support mental health and to prevent mental health problems among the left-behind children" (Qin & Albin, 2010, p. 14). This increases the importance of local policies and community action in supporting left-behind children and of the role of pastoral care and counseling in schools (the latter is still in its early stages). As is evident so far in this chapter, parental migration can generate a considerable amount of negative impact on the children left behind but do material benefits offer compensation for parental loss?

Do Remittances Compensate for Parental Absence?

One of the main motivations of workers in migrating is to improve the living standards of their children. Financial remittances have had a strong and positive influence on rural household incomes in China (Du & Park, 2006) and households with left-behind children often have higher financial assets (Biavaschi, Giulietti, &

Zimmerman, 2013). Over 90% of migrant workers with children send remittances home (CYRC, 2006). These can provide benefits throughout children's school careers, determining whether and when children enter school and whether children stay on to the more expensive stages of secondary education. From an analysis of data from a survey of children and families in Gansu province Hu (2013, p. 56) concluded that "the absence of adult household members has a negative effect on the educational performance of the left-behind children, but that remittances seem to partially compensate for this loss" and particularly for girls. Hu (2013) found that girls in Gansu households receiving remittances did less housework and were less likely to engage in income-generating activities than girls in households not receiving them. However, financial benefit may not be sufficient to compensate fully for the disruptive and ongoing effects of parental migration (Lu, 2012; Chang, Dong, & MacPhail, 2011), as is often illustrated in children's writing, for example,

> I can now hand in the tuition fee on time,
> I have more toys and pocket money,
> Mum and Dad call back regularly,
> But why am I always unhappy?
>
> (Wang Chunyu in Ye, 2011, p. 625)

More benefit seems to come from the migration of an older sibling who is able to provide economic benefits without involving separation from parents for the child at home (Biavaschi et al., 2013). Also, the benefits from remittances can be more than financial. "Social remittances" of increased knowledge about the wider world and changes in perceptions and practices can benefit those left behind (Levitt, 1998), helping to expand their rural horizons as well as prepare them for a future urban life. However, if communication between separated family members is limited, the benefits are likely to be weak. It can also lead to reduced educational aspirations if migration appears to offer more chance of economic benefit than education. How then does parental migration affect the education of left-behind children?

Impact on the Education of Left-Behind Children

While there is some measure of agreement on the emotional and psychological effects of parental migration on left-behind children, research on its impact on education shows more mixed results as well as the need for more and better research (Wang et al., 2014). It also highlights the complexity of the issue as well as the limited research base and problems of generalizing across research studies which are not comparable and possibly reflect regional differences.

In terms of enrolment and completion, most rural left-behind children attend school (96.49% in primary and 96.07% in junior middle [junior secondary] school). They have slightly higher rates of school attendance and completion of compulsory education than rural children overall. Older left-behind children (15–17 years) are more likely to drop out of school, with 4.8% of them not completing compulsory

education though this is only 1% less than the dropout rate overall for rural children of the same age (NBS 2013b). Migrant family structure appears to affect school drop-out. A study by Duan and Wu (2009) in Chongqing found that the highest percentage of drop out (5.45%) was among children who lived alone, followed by those with migrating mothers (4.2%), those with migrating fathers (2.3%) and those with both parents absent and living with grandparents (1.9%). Difficulties in adapting to parental migration can also affect school completion and performance. Gender differences can be found too. In a study of six provinces, including the three western provinces of Gansu, Shaanxi and Sichuan, Wang (2012) found a negative effect of parental migration on school enrolment, with the effect being larger for boys than for girls, starting at the beginning of compulsory education and persisting throughout primary and secondary education. For girls, parental migration only showed a significant negative effect at the secondary school stage.

In terms of educational attainment, Chen, Huang, Rozelle, Shi, and Zhang's (2009) study on 36 rural primary schools in 12 townships in Shaanxi province showed no significant negative effect of parental migration on school performance, and even an improvement when the child's father migrated. However, many other research findings on the school performance of left-behind children show negative effects of parental migration. For example, Zhao, Yu, Wang, and Glauben (2014) found from a survey of 74 rural primary schools in Ningxia and Qinghai, that parental absence had a significant negative effect on left-behind children's school performance and that children from ethnic minority groups were especially disadvantaged. Wen and Lin (2012) reported that left-behind children of migrant mothers were the least engaged pupils in terms of going to school, participating in class by answering questions, following classroom rules and enjoying homework. The impact of parental absence differs according to student gender and which family member migrates. Lee and Park's (2010) analysis of data from Gansu province found that the correlation between higher test scores for mathematics and Chinese and father-only migration was strong and significant for girls, but not for boys. They attribute this positive effect for girls to an increase in family income and a change in family dynamic, namely the mothers' ability to provide a more nurturing environment for their daughters. Hu Feng's (2013) study in Gansu showed that girls in households receiving remittances were more likely to receive out-of-school tutoring than boys. Lu (2012) also reports that the positive effect of emigration was significantly greater for girls than for boys, underscoring the potential for emigration to alleviate the persistent male bias in schooling in rural China. The educational benefit for girls, however, was largely in households with sibling migrants.

Left-behind children's views of their own school performance were most negative from families where the mother had migrated, when compared with other migrant family structures and non-migrant families according to Wen and Lin (2012). They report that the longer the parental absence, the lower the test scores of left-behind children; when both parents were migrant workers, the average time away from them was around five years. Children living with guardians (an adult other than parent) did

less well in Chinese and boys had significantly lower mathematics scores. Gender effects are found in other studies too. Boys were seen to be more disadvantaged than girls by parental migration in Zhou, Murphy and Tao's (2014) study, a disadvantage not offset by additional income from remittances. A study of left-behind children in rural primary schools in Sichuan similarly reports that the scores of boys were lower than those of girls in mathematics, Chinese language and in their confidence and interest in learning and learning ability (Liang, Hou, & Chen, 2008). By contrast, Hou (2013) concluded from a study in the five poorest provinces in western China (Gansu, Guangxi, Ningxia, Sichuan and Yunnan), that parental migration had no obvious effects on left-behind boys, language performance or girls' mathematics performance though left-behind boys tended to demonstrate timidity, anxiety and aggressive or disruptive behavior. Hou's overall conclusion is that short-term parental migration has no effect on children's academic or non-cognitive development though parental absence of more than three years harms boys' emotions and behavior in school.

Children's attitudes to education also seem to be affected by parental migration. Many left-behind children do not see the need to study. Chan (2009) reports that only a third regard education as a path to reaching their goals: "For most rural children, studying beyond middle school is not a viable or attractive option…Inevitably, many left-behind children end up taking low paying jobs in the cities just like their parents" (pp. 18–19). However, limited aspiration may not be universal. Ye and Pan (2011) found that 95% of left-behind children considered school education valuable and the majority said they aimed to go to college.

From research and reports, we can conclude that the problems experienced by left-behind children affect their welfare and education (two entwined domains of human development) and that the problems are complex and not easy to solve. Who then should have responsibility for the welfare and education of left-behind children? The next section addresses this question.

LEFT-BEHIND CHILDREN: A SHARED RESPONSIBILITY

The difficulties faced by left-behind children and their parents are many and varied, ranging from *hukou* restrictions on rural-urban migration at the macro level to family relationships and the coping mechanisms of individual children. No single agency (parents, schools, employers, government) by itself can solve all the problems and the way forward is through shared responsibility. How do these different agencies and stakeholders see their responsibility for the welfare of left-behind children?

The Parents' Perspective

The perspective of migrant parents on their left-behind children was explored in a study of over 1,500 migrant workers and 25 managers in nine factories in Chongqing and the Pearl River Delta (CCR CSR, 2013). Over 80% of the parents felt inadequate in their role as parents and 70% had strong feelings of guilt and anxiety as a result

of separation (especially in relation to children between the ages of 11 and 14). They reported a breakdown in communication and intimacy with their children. Many said they would move back home if jobs were available and had considered leaving their present jobs to take better care of their children. Financial pressure, lack of sufficient time to look after the children and problems with access to schooling were the main reasons given for leaving children behind, even though they acknowledged there were often no suitable guardians back home. However the researchers report that

> While children and the family are at the very center of working parents' needs, hopes and plans, there was a major discrepancy between the migrant workers' understanding of their responsibilities as parents and their actual ability to take on these responsibilities. (CCR CSR, 2013, p. 5)

From a study in Gansu, Hu Feng (2013) found that migrant mothers in particular hope that their children will do well educationally, even gaining a college degree, despite the reality that they themselves spend little time helping their children with their education, homework and day-to-day problems. This perhaps illustrates some of the disconnection between migrant parents and their children. Repairing this has become the focus of effort of some non-governmental agencies and voluntary support groups. Many of the migrant parents thought their employers should do more to support them in their role as parents. How did the employers see their responsibility for their workers' role as parents?

Corporate Social Responsibility

The notion and practice of corporate social responsibility has been slow to develop in China though awareness is growing. An international initiative (UNICEF, UN Global Compact & Save the Children, 2012) has called for the adoption by employers of a set of global standards on which to base actions they can take in the workplace, marketplace and community to respect and support children's rights. These standards are encapsulated in ten principles, based on the rights stated in the Convention on the Rights of the Child, a human rights treaty signed by 183 countries including China. Providing support to workers in their roles as parents is included in the ten principles (Principle 3d) and specifically, support for migrant workers with 'distance parenting' of left-behind children. Implementation of the principles is seen as the responsibility of local, national and international companies alike. The ten principles also call for businesses to support government efforts and contribute to existing program for children or to plan and implement social investment program in cooperation with governments, civil society and children.

The study of migrant workers in Chongqing and the Pearl River Delta found that awareness about corporate social responsibility and the rights of children was low in parents, their employers and managers (CCR CSR, 2013). Only a few businesses cooperated with non-governmental and civil society organizations to provide migrant and left-behind children with occasional or short-term services, while even fewer

provided sustained support as part of their social responsibility strategy. Most of the companies in this study did not include the needs of migrant workers with children in their planning and their awareness of the workers' family situations was limited or absent. Only 23% of the workers felt in any way supported by employers in their role as parents and most had a limited understanding of corporate social responsibility. Few had been supported by non-governmental or other civil society organizations or were even aware of their services and activities. Only 7% of migrant workers or their close acquaintances had received help from civil society organizations.

Though the relationships are not easy to manage, there is huge scope for more cooperation between employers, social work services and civil society organizations. The migrant workers identified several ways in which employers and government could help: assistance with children's education, free summer campus for left-behind children, paid leave for child care, education funds, solving schooling difficulties and the provision of positive guidance for left-behind children by welfare organizations (CCR CSR, 2013).

Schools and Teachers

Schools and teachers are often regarded as the main agencies that should solve the problems of left-behind children. This perspective is not always shared by schools and teachers themselves and the boundaries of responsibility tend to be unclear. The response of schools has been varied and uneven though there have been many positive initiatives too, often on a voluntary basis and under-funded. So far, school provision for left-behind children has included dormitory accommodation (though costly for some rural parents), lunch programs, after-school activity centers, access to telephone and Internet connections with parents, counseling, support for 'foster mother' projects, expanded roles for teachers and collaboration with local community groups or volunteers. Teachers and schools are important resources contributing to the welfare of left-behind children. For example, from a study of adolescents in Gansu, Davidson and Adams (2012) highlight the important effects of teacher support on psychological outcomes for poor rural adolescents struggling with problems. However, the community's high (sometimes unrealistic) expectations about the role of schools may be generated by the lack of local social services and infrastructure for child welfare. The need for a social welfare system for children living with single parents and children left behind in rural areas is acknowledged in China's Country Report on its implementation of the United Nations' Millennium Development Goals (Ministry of Foreign Affairs, 2013).

As well as listing the initiatives taken so far, such as those mentioned above, the Ministry of Education's report (April, 2013) on left-behind children and compulsory identifies five issues still remaining:

- provision for support and special measures for left-behind children is uneven, with some places having none;

- many measures are short-term and limited, and existing initiatives are inadequately monitored;
- the responsibility of the family for education is difficult to implement because, while the Compulsory Education Law allocates the responsibility to parents, there is no legal mechanism in China (unlike some other countries) to hold them to it;
- the responsibility and accountability of schools for left-behind children are expanding (especially with boarding schools), with the expectation that schools (and teachers) will take on some family roles beyond their primary function and without sufficient additional resources or training;
- community functions in rural areas are becoming more diluted, as rural communities (their material and human resources) shrink with depopulation and a diminishing infrastructure.

Government agencies at national, provincial and county level are not able, by themselves, to deal fully with all of these issues. One intention expressed in the government report is to encourage an extensive mobilization of social participation in different forms to help solve the problems.

Central and Local Government

A large number of central government directives and policy statements has emerged since 2004 following several government-sponsored research studies. These policy directives have provided a framework and direction for local government to follow, as well as injecting funds. In 2006, the Special Work Group on Left-Behind Children was established, consisting of 13 departments including the All-China Women's Federation and the Ministry of Education. This provided a working mechanism for coordinating actions relating to health, education, social security and financial support of left-behind children. In 2007 and 2012, this Work Group carried out two national studies, and on the basis of these, the responsibilities and work priorities of the various departments were clarified and policies developed. A large number of government regulations and policy documents (Opinions and Circulars) have been disseminated on rural and left-behind children since 2006. The National Program of Action for Child Development in China 2011–2020 (National Working Committee on Children and Women under the State Council, NWCCW, 2012) identified the key measures needed to provide services for left-behind children: improving service mechanisms, raising awareness of migrant parents' liability and guidance on the behavior and emotional development of left-behind children. In 2013, the Ministry of Education published a circular promoting a registration system for school-age left-behind children, requiring local authorities to keep these records in order to identify those children in need of extra care.

A variety of responses to national directives are evident at the provincial and county level. More than 20 provinces and municipalities so far have included the rights and interests of left-behind children into their measures for basic compulsory education and the protection of children. Between 2004 and 2008, local Women's

Federation groups assisted in the formulation of 542 provincial documents on left-behind children (Zhang, Gao, & Wang, 2013). One of the most active and innovative local governments has been Chongqing municipality where different agencies, including various government departments, have collaborated and involved a range of stakeholders. Chongqing's approach is described in the next section.

THE CHONGQING MODEL

In 2008, Chongqing municipality in the south-west of China had one of the highest rates of left-behind rural children in China, 49% (2.35 million) of the national total, distributed unevenly across Chongqing's 19 counties. In some schools, the proportion of left-behind children was very high, for example, 90% of students in Shijiao Yingshang Primary School in 2013. About 53% of all Chongqing's rural children were left-behind by one or both parents working away from home and in five of the counties the proportion was 80% (Chongqing Women's Federation, 2009).[3] Absence of both parents was the most common form of separation. Most left-behind children (55%) were primary school age (6 to 12 years old). About a third (32%, 1.3 million) lived with grandparents in the absence of both parents and 65% lived with one parent. The educational level of 92.6% of the grandparents was below junior middle school standard and many were said to have poor health. Nearly all left-behind children (92%), especially those over the age of ten, expressed a wish to be with their parents and about 21% had not seen their parents for over a year. A study of left-behind children in four counties in the Three Gorges area found similar psychological characteristics to those of left-behind children elsewhere: depression, anxiety, low-self-esteem and feelings of loneliness and abandonment, aggression and an inability to think calmly (Tian & Zhou, 2008).

To solve the problems arising from the situation of left-behind children, Chongqing's municipal government took several initiatives from 2008 onwards, including them in its Ten People's Livelihood project (an investment of RMB 5 billion). The Education Department, the Women's Federation, the Commission of Community Youth League, the Committee for the Well-being of Youth and the Department of Civil Affairs were assigned joint responsibility for implementing the initiatives. Chongqing developed a 4+1 model for the welfare of left-behind children, aiming to promote personal development, mental and emotional well-being, physical well-being (healthy living, physical education) and ideological and political education. Their action plan for left-behind children focused on constructing rural boarding schools and kindergartens, training those involved in the care of left-behind children, supporting community group action, promoting health and nutrition and the protecting the rights of left-behind children (Zhen & Wu., 2009). In 2009, the Chongqing government provided RMB 2.67 million for the education of rural and left-behind children, removed school fees for 3.6 million children and provided subsidies for 489.600 rural students and RMB 14 million for the education of 57,000 left-behind children. Around the same time (2010) Chongqing government began a

hukou household reform, so that rural citizens could change their *hukou* status more easily as urban expansion grew.

Chongqing government recognized that the problems of left-behind children did not have a single solution but needed a combination of effort targeted at different aspects of child welfare. Though allocating substantial resources to the initiatives, it was clear that government alone could not provide all the goods and services needed. The solution was to combine inputs from several sources (government at different levels, corporations, NGOs, communities, media organizations and volunteers) focusing on material needs, policy support for empowerment and self-help, community care and rural education (Beh & Yao, 2012). Policies were formulated to improve the situation of left-behind children and their families. For example, The Rights of Rural Left-Behind Children Program required each county to establish rights protection centers for them, to safeguard their rights and help prevent school dropout. Resources were provided to support the development of left-behind children and the society they lived in, taking the form of aid from government departments, media, businesses and those non-governmental organizations able to offer long-term reliable support.

As well as financial subsidies, the plans also aimed to provide 2,000 family video-chat rooms and 5,000 telephone rooms to help improve communication between distant parents and left-behind children. Special training for people involved with left-behind children was provided and more emphasis placed on psychological guidance. A target was set for building 2,000 new boarding and 1,000 new kindergarten schools by 2012. Material and other ("spiritual") aid to left-behind children was provided by companies and individuals. For example, in 2009–2010, Chongqing Electric Power Corporation built 12 Yu-electric Chunmiao Houses with reading rooms and family room telephones. China Telecom provided free listening services for short educational programs through its Children's Learning Partner project. In addition, a "bottom-up community care environment" was developed as a result of Chongqing's Action Plan. This included the recruitment of volunteer surrogate parents, training for rural guardians of left-behind children, promotion of rural nutrition and health programs (government funding for safe drinking water, free egg and milk project, "love lunches" and building school canteens). The approach taken at municipal level was adopted by county level authorities to varying degrees. One of the most active counties was Wuxi, a county with previously poor community relations.

IMPLEMENTING THE CHONGQING MODEL IN WUXI COUNTY

Wuxi County in the northeast of Chongqing has a population of 530,000 (88.8% rural) and is a national-level poor county, with a GDP per capita of only 30% of Chongqing's average level. About three-quarters of children (0–16 years) were left behind when parents migrated for work (Chongqing Women's Federation, 2009). In 2011, there were 54,660 left-behind children of compulsory school age (6–15 years old, Grades 1–9). Of these, 30% had both parents migrating and as a result, were left

in the care of guardians (grandparents, 80.0%; other relatives. 16.6%; non-related foster carers, 3.5%). About 12% (6,661) stayed in school dormitories where nearly half of boarders came from poor families. Around 2,920 left-behind children were under six years of age and not yet at school (Beh & Yao, 2012).

To address problems arising from the situation of left-behind children, their families and guardians, Wuxi County adopted Chongqing's 4+1 model. Wuxi authorities established a "joint conference system" which brought together local government departments and other agencies for regular meetings and action planning for the welfare of left-behind children (Beh & Yao, 2012). Social support was targeted at families and guardians through "open family connection" setting up 87 family rooms in schools and facilitating communication with absent parents. By 2011, 91 out of 221 schools had family room phones and 86 schools provided online family chat rooms accessible to all 221 schools. The County Education Bureau kept records of left-behind children during their compulsory education period and provided free health checks. Actions taken to improve nutrition included refurbishing canteens in schools, providing lunches for over 2,100 primary and 1,256 junior middle school students and instituting a free "milk and egg" program.

Thirty female employees from Wuxi Government's Department of Agriculture took on the roles of foster mother to 30 children in Sanbao village and Wuxi County Education Bureau recruited 50 university students to be volunteer foster brothers or sisters to 100 left-behind children, to talk to them, play games, help them with homework and provide counseling. Volunteers acted as surrogate parents helping 1,800 children through regular contact with them, checking their homework, offering advice or counseling, helping them to solve problems in their day-to-day living and acting as role models for behavior and attitudes. About 3,000 teachers, organized by 250 village committees, visited the homes of over 5,000 rural left-behind children, supporting their guardians and advising on matters relating to education, safety, behavior and physical and mental health.

Donations from business enterprises were actively sought. As well as 200,000 RMB spent by the County Education Bureau on the care of left-behind children in the rural areas, further financial contributions came from companies. For example, Yuanda Power Company donated 13,000 RMB and Zhongbe Coal Mining Company and others gave 25,000 RMB to Zhong Ba primary school for training the guardians of left-behind children through 'mobile parenting schools' and for children's social activities during festival times. A community care approach provided support to guardians and carers, including subsidies for childcare when volunteers took on the role of foster parent, or foster brother or sister. As part of this, in 2012 Wuxi government began a cooperation with a non-governmental organization, Beijing Global Village, on a "life of harmony" project. This aimed to promote community action and harmonious relations between local government and local society, with "happiness and harmony" as its slogan. The project organized parent training sessions, recruited volunteer teachers and surrogate mothers to take care of left-behind children and provided

work-skills training for parents so that they could find work closer to home. This proved to be a productive approach, based on local needs and described by Yang (2012) as "an experimental exploration of NGOs' effective participation in China's grassroots social governance" (p. 15).

Wuxi's implementation of the Chongqing model has been successful in improving the life and care of many left-behind children though more evaluation is needed of its long-term effectiveness, the comparative effect of different components and the sustainability of the approach. Because of the scale of need, not all left-behind children have been sufficiently reached and not all activities have been sufficiently monitored or evaluated. Some of the initiatives taken, though called for and welcomed by many, have thrown up problems. For example, the construction of boarding schools and dormitories was widely seen as a good solution for the education of children in rural and remote areas, but their use in Wuxi and elsewhere has demonstrated some weaknesses: lack of standards in their management, inadequate teaching resources, difficulties in providing individual attention to children in large numbers, insufficient support to teachers and inadequate staffing of boarding schools. Also, ensuring collaboration between different agencies has proved challenging at times. Nonetheless, the approach has managed to mobilize the local community in a collaborative way, paying attention to real needs and enabling more local work for migrant labor.

CONCLUSION

Though left-behind children can be characterized as a distinct group, their situation cannot be considered in isolation from the broader context of rural life and rural education. Rural children living in poverty with both parents experience some of the same difficulties as left-behind children. In 2010, the number of children living in government-designated areas of poverty (832 counties and 'blocks') was an estimated 70 million. According to the National Population Census 2010, children in poverty designated areas lagged behind other children in several respects. They had poorer health and less access to household water and sanitation. Child mortality was higher than the national average by at least 50%. About 5% of children in poverty-stricken areas failed to complete compulsory education (compared to the national average of about 3%). Also, only 64% of rural children lived with both parents, lower than the national average by 6%, and the poverty-designated counties had a higher proportion of left-behind children.

There is also a quality gap between rural and urban education. Education in rural areas in China has relatively high costs, lower levels of per capita funding, limited opportunities of a lower quality and a gender bias favoring boys (Hannum & Park, 2009). Public investment in education is much lower in rural areas than in cities. For example, in 2011, urban primary schools received RMB 700 more public funding per student than did rural primary schools, and RMB 900 more per urban student at junior middle level. The 2010 Census showed that

> there was no obvious urban-rural or sex difference in terms of children's school attendance rate at the compulsory education stage. Even at the senior secondary school stage, female school attendance rate was not lower than that of male children. However, as children get older, their school attendance rate falls gradually, and the urban-rural disparity begins to become prominent. (NBS, 2013b, p. 11)

From an analysis of data from 130,000 children and their families, Rozelle and Zhang (2014) report that poor rural children were nearly two years behind the standards of urban children in mathematics, Chinese and English, the three main academic subjects, by the time they reached fourth grade, and that students with the lowest scores were poor children living with both parents. Awareness of the needs of poor children has grown, and the Chinese government's plan (2011–2020) for poverty reduction in rural areas included specifically, for the first time, children as a key target population for poverty alleviation efforts, recommending that more support should be given to them (Information Office of the State Council, 2011).

The government's report on China's progress towards its Millennium Development Goals describes left-behind children as having special needs and acknowledges that "With the number of left-behind children increasing, how to provide better and more comprehensive education for them becomes an issue in urgent need of attention" (Ministry of Foreign Affairs, 2013, p. 22). However, left-behind children currently live in a context of shrinking villages as younger and more educated members of the community migrate for work, rarely returning on a permanent basis and creating changes in rural demographics. The reduction in village populations has resulted in diminishing services and community support. A further reduction in local facilities has come from the school merger policy from 2001 onwards, closing small village schools and merging them into central schools at county or township level. Between 2000 and 2012, the number of rural primary schools declined by 64.8%, from 440,284 to 155,008 and enrolment in rural primary schools fell by 57.0%, from 85.0 million to 36.5 million (National Bureau of Statistics database, 2001 and 2013). Though the government's aim in doing this was to achieve greater efficiency in the use of resources and improve quality, it has generated new problems relating to the distances children have to travel to school, their safety, the cost and provision of transport and the physical and emotional demands on young children.

One solution promoted heavily by government policy and funding has been the provision of boarding facilities at central schools and local governments have responded rapidly with new constructions. By 2006, about 10% of primary school students in China's western regions and about 40% of junior secondary students in central and western regions were in boarding schools (Chan, 2009) though this incurs costs to the parents. Some parents have paid for their children to stay with local families as an alternative or have rented rooms to stay nearby with their children. Drop-out from compulsory schooling has increased, reaching 8.8% in 2011, a fall

back to the level of a decade before. In 2012, the government halted the school merging policy as it became more aware of its impact.

The issues of equity in educational opportunity for left-behind children are, to a large extent, common to all rural children in China, especially the poor. Disadvantage takes the form of less local school availability because of school mergers, poorer quality of schools and teachers than their urban peers and, as a result, few chances of gaining access to higher education. In addition, many left-behind children are likely to be disadvantaged by the emotional and psychological consequences of parental migration. While remittances may support left-behind children's continuance through successive stages of education (though there is evidence of increased drop-out too), their situation can also have negative effects on educational attainment, more so for boys than girls.

The phenomenon of children left behind by parents migrating for work has been growing faster than the solutions to the problems generated by it. While the percentage of left-behind children in labor migration is similar in Europe and China, the scale is far greater in China, ten times that of Europe. Thus mobilization of effort and resources to address the problems has needed to be greater too, in a context where civil society action is circumscribed to a degree. From their substantial research on left-behind children Ye and Pan (2011, p. 375) concluded that "we want to emphasize that the phenomenon of left-behind children is a critical social issue." This social issue is complex. Some of the solutions lie beyond education and as the Ministry of Education report (2013) says, it is not just an educational problem but also a "three rural issues" problem.[4] The rural-urban gap in development and the *hukou* barrier to urban life continue to affect rural children adversely:

> On balance, parental migration has not really helped alleviate the long-standing educational disadvantages facing rural children, because it often entails family separation that can lead to deleterious and unintended ramifications for child development…Unless rural migrants are provided better chances of incorporation into Chinese cities, the opportunities of upward mobility for their children would be rather limited. (Lu, 2012, p. 340)

Many of the challenges that rural households face are not necessarily those that can be solved by the families themselves but result from structural and system problems. The importance of solving the problems of the children of migrant workers is recognized at government level: "A successful solution to the problem plays a vital role in promoting social harmony and stability…It is an important step in reaching education equity" (Ministry of Education, 2009, p. 4) but government alone cannot solve the problems through directives and funding. Many sectors of society and agencies need to be involved to implement solutions, from the macro level of government and policy to local action and support for individual children and families. Coordination between agencies and groups has often been weak but,

as the examples of Chongqing and Wuxi show, collaboration and coordination are required in order to make a difference. In taking action to support left-behind children and their families, approaches vary from ”sticking plaster” to alleviate an immediate problem to the less common and more challenging treatment of root causes which require reforms and longer-term system changes. As Zhou et al. (2014) concluded, “in the absence of such reforms, the considerable sacrifice that many rural people make on behalf of their children will impose a further, unintended sacrifice on the next generation” (p. 286). There is already some evidence (CCR CSR, 2014) that the new generation of young migrant workers (18–22 years old) who were themselves left-behind children continue to show the negative effects of their experience into adulthood. Solving the problems in western China is particularly challenging because of its limited resources, poverty level and the pace of rural and demographic change.

NOTES

[1] According to the 6th National Population Census in 2010, the child population of China (aged 0–17 years) was 279 million (54% male, 46% female), 45% in urban areas and 55% in rural. There were 90.26 million pre-school children (0–5 years), 131 million children of compulsory education age (6–14 years) and 57.59 million at senior secondary level (15–17 years).

[2] Sichuan, Guangxi, Yunnan, Chongqing, Qinghai, Gansu, Ningxia, Inner Mongolia, Xinjiang and Shaanxi are the ten provinces, autonomous regions and municipalities in the government’s Western Development policy.

[3] In this study, the age of left-behind children was 16 years and below though the more usual definition includes children up to the age of 18.

[4] Three Rural Issues, 三农(*sān nóng*), highlighted by leaders Hu Jintao and Wen Jiabao, refer to three rural needs for development in mainland China, namely agriculture, rural areas and peasants.

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6. THE PATHWAYS TO HIGHER EDUCATION FOR ETHNIC MINORITIES IN CHINA ARE NOT EASY

INTRODUCTION

In spite of its vast size and population (1.339 billion, National Bureau, 2011), during its long history China has always remained determined to be a unity. None of its rulers – including the emperors and the communist government of the People's Republic of China (PRC) – have ever accepted that some parts of the country could or would leave the country's political system. Nevertheless, it would not be hard to find a reason for some sections of this huge population to have sought to determine their own destiny. Indeed, 55 ethnic minority (EM) nations (*minzu*), bearers of a culture that is very different from that of the Han, are recognized by the government of the PRC (Zhao, 2007). In 2010, 91.51% of China's population belonged to the Han majority and the rest was composed of EMs (National Bureau, 2011). These EMs differ from the Han, not only because they have different cultures and languages, but also because many of them live together in specific border and mountain areas, separated from the majority group, and very often have fewer economic opportunities than the Han people. This less favorable position of the EMs could have been, and sometimes has been, a reason for some EMs to become more independent from the majority. However, since the establishment of the PRC, the Chinese Communist Party (CCP) and the Chinese government have developed policies to improve the living conditions of the EMs. At the same time, a policy has been developed to promote the culture of these groups and construct a bridge between them and the Han. This is determined by Article 4 of the Constitution of the PRC (National People's Congress, 1982), which states: "All ethnic groups in the People's Republic of China are equal. The state protects the lawful rights and interests of the minority ethnic groups and upholds and develops a relationship of equality, unity and mutual assistance among all of China's ethnic groups."

The constitution also states that any discrimination and oppression of EMs is prohibited. Moreover, it suggests that the state should develop an economic and cultural policy in order to promote equal opportunities for EMs. Regional autonomy is accepted for these groups and their local written and/or spoken language should be protected. Although the constitution recognizes the rights of the minorities, it also declares that citizens have a duty to "safeguard the unification of the country" (Article 52) (see also Ma, 2007; Zhu & Blachford, 2011; Zhao, 2011).

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History has shown that one of the main instruments to create a society of equal opportunities is education. However, education is also a part of an unequal society and is not always able to correct the deficits in society. It is even possible for education to reinforce inequality. In spite of these shortcomings, education has been an important instrument for the promotion of EMs, not only in primary and secondary education, but also in higher education (HE). Nevertheless, it is hard to state that all EMs have taken advantage of these possibilities. Research has shown that access to HE is not always the same for EMs and the Han, and that not all EMs have an equal opportunity to attend HE (Zhang & Verhoeven, 2010). The objective of this article is to offer some insights into the causes of these differences.

To make this clear, we follow the formation of academic pathways described by St. John and Musoba (2011). Access to and survival in HE is the result of a long process that starts in the families of young students. Here they receive the social, cultural, and economic capital that will allow them to endure in a society that offers opportunities to its members according to the capital that is required. Those who have the different kinds of necessary capital have the opportunity to participate more fully in society than those who do not. Social capital refers to the institutionalized social contacts people need to live in society. Cultural capital consists of ways of thinking and feeling, human-made instruments, and institutionalized values that determine social life. Economic capital is capital that is "immediately and directly convertible into money" and may also appear institutionalized in property rights (Bourdieu, 1986). All these forms of capital have a bearing on the different pathways students have to follow in order to succeed in HE. These pathways start very early in a student's life. Family life, with its lack or abundance of the three forms of capital, makes a younger child's later steps in school life difficult or easy. This family life is co-determined by the cultural, social, and economic environment of the family, and the policies of local and national authorities that are used to improve the situation. Pathways followed by the students may be facilitated by support programs established by the national or local government and by schools and other organizations. In this context, the main target of policymakers is to open the pathways to primary, secondary, and higher education.

In the next pages we will give: 1) a picture of the geographical and economic situation of the living environment of the EMs; 2) an overview of EMs in primary and secondary schools as part of their pathway to HE; 3) their access to HE; and 4) a conclusion.

WHERE AND HOW DO EMS LIVE?

Access to education is less of a problem in urban areas than in rural areas. In towns, schools are built at reasonable distances from where students live. This is not always possible in rural areas, where the population density is much lower and where all kinds of natural obstacles, such as mountains, rivers, and deep valleys, make it relatively difficult to build good roads and provide basic transportation.

EMs often live far away from towns where educational facilities are numerous, control of the compulsory education system is more feasible, and where a stronger economic system has also been developed. Agriculture is one of the most important resources for EM groups, and children have to work on the farm to make a living. The average per capita annual income for many is less than 200 yuan (Tsung, 2009).

Although the major part of some EM groups live together in groups (e.g., the Mongols and the Uyghurs), many EMs are spread over large areas and/or live in the same place as other minorities and Han. Where the groups live close together, ethnic autonomous prefectures have been established that can develop their own educational policy. The Economic and Development Department State Ethnic Affairs Commission of China (2011), for instance, calculated that in 2009 56.12% of the minority population in Yunnan Province live in such prefectures, but 43.88% of them live in others. For the latter group, there is a possibility that students from a different ethnic culture will attend the same school and sit in the same classroom.

EMs often live close to the country borders. This is the case for many EMs in Yunnan Province (Turner, 2007) and also for sections of larger groups such as the Mongols, the Uyghurs, and the Tibetans. Cultural and economic contacts with their own people in neighboring countries are common and may lead to intermarriage. This may stimulate an acculturation process between the different countries.

EMs not only face obstacles to their development due to geographical factors, but are also threatened by greater economic hardships than the Han majority. This is illustrated by the following figures. In 2010 in the western provinces (where most of the EMs live) the per capita gross regional product was 22,476 yuan and in the eastern provinces 46,354 yuan (National Bureau, 2011). The average per capita annual net income of the urban and rural EM households in 2009 was 14,072.76 and 3,655.57 yuan respectively (Economic, 2011). In 2010, the average per capita expenditure for education per annum was 718 yuan in the western provinces, whereas in the eastern provinces this figure was 724 yuan. In 2010, some 36.7% of the labor force of China worked in the primary sector and 28.7% in the secondary sector, whereas the figures in the western provinces were respectively 46.66% and 19.65% (National Bureau, 2011). As a consequence, the western provinces also have a larger proportion of the population living below the absolute poverty line, deprived of basic human needs: food, water, shelter, etc. ($1.25 per day, World Bank, 2015). In rural China the figure is 3.1%, whereas in the EM areas this figure is 7.3% (Wang, 2007; Shen, 2004).The economic situation in these regions seems not to be capable of meeting the cultural and social needs of the EMs.

PATHWAYS TO HE: PRIMARY AND SECONDARY EDUCATION

The first steps of EM children into the educational system often go hand in hand with a difficult acculturation process. Many are born into families living in rural areas where the local culture is predominant and only the local language is spoken. In 2005, Hong (2010) observed in a country-wide survey that only 40.7% of the rural

EMs (between 7 and 22 years old) spoke Chinese at home. In urban areas, the figure was 50.1%. In some EM groups, religion has such a predominant influence that education provided by the religious community is preferred to education provided by the state (e.g., the Dai. See Hansen, 1999; Tsung, 2009; Shen & Qian, 2010). Some of these language groups have (or had) no writing system, others have one (e.g., Uyghurs, Tibetans, and Dai), but the writing characters are totally different from the Mandarin system. The educational level of most parents is low. In some EM groups, many adults never had a school education, with the result that between 30% and 75% of them are illiterate (Wang, 2007).The lack of a good relationship with the education system results in many EM parents not being supportive of school education. A step into the compulsory school system means a big challenge for these children, especially when the school provides bilingual education where in addition to the local language, in successive years more lessons are taught in Mandarin (the pyramid model (Tsung, 2009)), and when not all teachers are qualified. It may be even harder for those children who are taught in Mandarin from the start. In spite of the recognition of the EM languages, Mandarin is considered to be the unifying factor of China and is seen as the ultimate target by many (Ma, 2007; Zhao, 2010). Moreover, Mandarin is the language for economic life and social mobility (Tsung, 2009). In different places (mainly in towns) *minzu* schools and Han schools have been merged, in order to also give EMs the chance to learn Mandarin better, as it is seen as the language necessary in order to make economic profit (Tsung, 2009). Schools are often located far from the families, so that children have to live in dormitories or boarding houses and do not go home for several weeks or months (Postiglione, 2008). In some schools, classes are shared by children from different nationalities, which is not always to the advantage of the students. In some poor and sparsely populated areas, children have to attend very small schools (‘teaching points’, or *jiaoxuedian*) where children of all ages sit together with one teacher for all of them (Tsung, 2009). Further, not all EM areas provide the nine-year compulsory education, which makes this part of the pathway to HE even harder (Postiglione, 2008; Wang, 2007; Tsung, 2009). These problems are added to by the difficulty of finding good teachers who are willing to live in remote rural areas. Therefore, it is not surprising that the enrollment of EMs in schools is different from that of the Han. Zhao (2011) noted that the enrollment of EM girls in all levels of schooling is proportionally lower than the enrollment of male EMs, and that these are both lower than the enrollment figures for female and male Han.

The economic situation and the local social contacts of the EMs are not conducive to long-term participation in formal education. Shen and Qian (2010) observed that those who participate longer and have more chance to end up in HE are students who live in a town, have parents who work for the government, and often communicate in Chinese (see also Hong, 2010). Others run the risk that the split between the EM culture at home and the modern culture of the school makes it hard to continue in this other world. In a case study of Dai families, Shen and Qian (2010) found strong opposition between the local Dai culture and the school culture. Many parents

do not believe that school education is necessary or helpful for the future of their children, and the children are not used to the strict school regulations. Mandarin is compulsory, but students experience it as hard to learn and at the end of compulsory education Han proficiency is often weak (see also Ma, 2007). This process not only educates "dually marginalized" people according to Shen and Qian (2010), but also contributes to an increase in the number of students who drop out in middle school and high school. Nevertheless, research has also stressed the importance of a bilingual education for the survival of EM students in the education system (Cherng, Hannum, & Lu, 2013).

Therefore it is not surprising that in the eastern provinces (e.g., between 21.9% (Shanghai) and 6.7% (Anhui)) the university attainment level is much higher than in the western provinces (between 10.6% (Xinjiang) and 5.3% (Guizhou)) (National Bureau, 2011).

In order to promote access to secondary education for EMs, the government has lowered the required test scores for the admission of students who graduated in schools where a minority language is used (Kayongo-Male & Lee, 2004). However, the entrance examination organized for secondary schools includes, among other subjects, Chinese, which makes it hard for EM students (Hansen, 1999; Tsung, 2009). Nevertheless, more qualified teachers have been hired and financial help for students is available (fees for boarding school paid by government, free textbooks, etc.). All these measures have better served students living in towns than those in the rural areas. The relatively small number of students who move on from primary to secondary school is also a consequence of the low appreciation of the EMs' schools and their language by the EMs themselves. The culture of the EMs often is seen by both Han and EMs as backward; an assessment that is often enforced among EMs by the lack of attention to EM language and literature in secondary school and teaching about superstitions among the EMs (Hansen, 1999; Tsung, 2009; Cherng, Hannum, & Lu, 2013).

HIGHER EDUCATION

The Difficult Pathway to Equal Educational Opportunities in HE

Once students have completed secondary school they can take the entrance exams for HE. Given the level of their cultural, social, and economic capital, it can be expected that the number of EM students who have access to HE will be lower than the number of Han students. Of course, among Han candidates there are also students with comparably low cultural, social and economic capital. However, these students have the advantage of belonging to the Han, which gives them a head start as far as language and self-respect is concerned. Indeed, EM students do not have a very positive opinion of their cultural background and often feel that their culture is seen as backward (Hansen, 1999; Yang & Wu, 2009; Zhao, 2011), an opinion that is often shared by other students and staff at university (Zhao, 2007;

Tsung, 2009). This opinion may be reinforced by the attitude of the majority. A survey among Han university students shows their low regard of EMs, except the Uyghurs (Fong & Spickard, 1994). In urban China, Han HE graduates see themselves as more healthy than EMs (Hu, 2014). In addition, as Lü and Wang (2012) observed, it is likely that EM students experience more negative emotions and are not as open to emotion regulation strategies than Han students are. All these factors produce the result that the participation in HE of the EMs is lower than among the Han. In 1953, only 2.56% of the HE students in China were EMs, whereas EMs represented 5.89% of the population. This changed later on: in 2009, 6.9 of students had an EM background, but this is still lower than 8.49%, the proportion of EMs in the total population of the PRC. The discrepancy between the proportion of enrollments of EMs in HE and their proportion of the population is sometimes very large in some provinces: in 2009, Tibet (62.59% vs 94.30%), and Xinjiang (37.05% vs 61.06%). In other provinces the situation is better: Inner Mongolia (26.08% vs 22.32%) and Ningxia (31.42% vs 36.78) (Economic, 2011; National Bureau, 2011).

HE certainly does not guarantee that EMs automatically become closer to the Han population, because a quarter of the EM students attend specific EM institutions for HE. However, if they attend other universities, research has shown that EM students grow closer to the Han culture, although this does not mean that they will look for employment among the Han after graduation (Yang, Li, Yalikunjiang, Tao, Li, & Gong, 2013). A consequence of this process is that EM students have more chance of graduating in liberal arts than in other study domains, because EM institutions for HE organize more courses for liberal arts than for sciences. Moreover, only a small proportion of EMs are able to study at key universities (Zhu, 2010).

An additional obstacle preventing the access to HE of EMs is the smaller amount of money available in Southwest China for HE (Bao, 2012). Students also have low expectations for future employment (Zhao, 2011) and fear that the best jobs are for Han students or those who speak and write Mandarin fluently, because the mainstream culture does not express much respect for the EM culture and language (Clothey, 2005; Zhao, 2007; Tsung, 2009).

Equal Opportunities Policy

The Chinese government established a preferential policy for EMs many years ago. Yang and Wu (2009) refer to the exemption for EMs from following the one-child policy, incentives for the hiring and promotion of government officials, special loans for businesses, tax exemptions, autonomous regions, etc. Students may also enjoy free meals, work-study programs, long-term subsidies, etc. More important for education is the raising of the scores or the lowering of the cutoff points of the entrance exams for HE. This principle applies to all EMs, but appears in about 200 different forms in different regions (Deng, 2013). Exams can be taken in Chinese or in the local language, but the consequences are different (Clothey, 2005; Zhao, 2011). All these advantages had the side effect that until the 1990s, some people,

who were considered Han, could apply to be treated as an EM. If the Chinese literacy level of the students is too low, they may sit for one or two years in a class where special books are used. China has established 20 universities where the percentage of EM students can be higher than 60%. Moreover, experts have been sent to these HEIs to provide special help for teaching and research and training of personnel. Financial help is also provided for libraries (Yang & Wu, 2009). Have these policies had any consequences for the pathways of EM students to HE?

Equal Access to HE for Han and Ems?

A random sample of 2315 students in ten universities in Yunnan Province provides some information about the differences and similarities between Han and EMs (Zhang & Verhoeven, 2011). If the criterion for the equality of educational opportunity is equal access to all types of universities for Han and EMs, then Table 1 does not show this equality exists. Han students have greater access to key universities and private colleges, EMs to public undergraduate universities and advanced vocational colleges. This pattern could be expected while the average score of Han students (M = 459.8; SD = 102.2) on the entrance exam is significantly higher than that of EMs (M = 423.9; SD = 86.5). Most of the students in our sample studied sciences (53.8%), but EMs more than Han (57.4%) (χ^2 = 4.45; df = 1; p = .03). Female students make up the largest group (56%) and this is the same for both ethnic groups. EM students are on average slightly older than Han (respectively 20.6 and 20.4 years of age). This might be a consequence of an extra year to improve proficiency in Chinese.

Table 1. University types and students' ethnicity (in %)

University type	*Han (N =1573)*	*EM (N = 545)*	*Total (N = 2118)*
Key universities	19.26	15.78	18.37
Public undergraduate universities	58.81	64.95	60.38
Advanced vocational colleges	9.41	14.50	10.72
Private colleges	12.52	4.77	10.53
Total	100.00	100.00	100.00

χ^2 = 38.09; df = 3; p < .0001. Source: Zhang & Verhoeven, 2011

Although the majority of students come from rural areas (56%), the proportion of EMs with a rural background is larger than among the Han (respectively 62% and 55%), whereas the Han have a larger proportion coming from a provincial city than the EMs (respectively 14% and 6%) (χ^2 = 30.59; df = 3; p < .0001). It is also remarkable that a larger proportion of the EMs are from Yunnan origin than among the Han (respectively 89% and 64%). This might be a consequence of the special EM policy of Yunnan Province.

Contrary to our expectations, we do not observe a difference between the educational background of the fathers in either group. The fathers mainly completed junior middle school (36%), fewer completed senior middle school (28.4%), or primary school or lower (22.8%). About 12% graduated from college. This is not true for the mothers of these students. For the mothers, the overall distribution is respectively 33.6%, 20.9%, 39.5%, and 5.9%. Some 45.3% of the mothers of EM students completed primary education or lower, whereas this was 37.4% for Han mothers, and respectively only 4.5% and 6.5% attended college ($\chi^2 = 13.93$; df = 3; p = .003). The majority of the fathers (65%) and mothers (77.5%) of the students are workers. This is the case for both EMs and Han. Some 41.7% of the students have an annual per capita family income lower than 1000 yuan and 37.2% between 1000 and 5200 yuan. The family income of the EM students is significantly lower than that of the Han ($\chi^2 = 23.69$; df = 4; p < .0001)

How do candidate students perceive their future in HE? Can we say that the trends above will be reproduced in the future? In 2012, Zhang and Wang (2014) interviewed 890 grade three students from five senior high schools in Yunnan Province. Although this sample cannot be considered as representative for all secondary schools in Yunnan Province, it can show something about the future university choice of secondary school students. Of the students interviewed, 39% are female and 61% male, and these proportions are the same for Han and EMs. Among the EMs, we find more repeaters (8.7%) than among the Han (3.8%). Han attended significantly more public key high schools (76%) than the EMs (60%).

In spite of this inequality, to some extent we find the same ambition among Han and EM students. When they were asked what they wanted to do after completing secondary school, 85.8% stated that they wanted to go and study at university, 9.9% wanted to study abroad, 2.36% wanted to find a job, and 1.9% did not yet know what they wanted to do. However, fewer EM students (75%) dreamed of later studying in public key universities than Han (81%) ($\chi^2 = 7.82$; df = 1; p = .005). When the students were asked what type of university they were more likely to attend after completing school, the EMs were more humble in their expectations (see Table 2). Only 47.8% thought they had a chance of studying at a public key university ($\chi^2 = 19.09$; df = 4; p = .0008).

Table 2. Preferred university type and students' ethnicity in secondary school (in %)

University type	*Han (N = 427)*	*EM (N = 391)*	*Total (N = 818)*
Public key undergraduate university	60.7	47.8	54.6
Public general undergraduate university	27.6	41.2	34.1
Public key vocational college	1.6	1.0	1.3
Private colleges or universities	3.5	2.3	2.9
Did not know yet	6.6	7.7	7.1
Total	100.0	100.0	100.0

$\chi^2 = 19.09$; df = 5; p = .0008. Source: Zhang & Wang, 2014

As before, there is no significant difference between the attained educational level of Han and EM fathers. About 33% completed junior high, 24% senior high school or secondary specialist, and 15% primary school. Some 6% graduated from a vocational college, 21% gained a bachelor's diploma, and 1% a PhD. The mothers of the students had a different educational experience ($\chi^2 = 16.7$; df = 5; p = .005). About 30% of the EM mothers only completed primary education, 25% junior high, and 24.5% senior high. These figures for the HAN mothers are respectively 20%, 35%, and 24.5%. As far as HE is concerned, there are no differences.

No differences between Han and EM fathers is reported with regard to their occupation. 36% of the fathers are farmers, 13% workers, 9% white-collar workers, 15% staff members of organizations, 10% civil servants, and 15% entrepreneurs. This is not so for the mothers. Han and EM mothers have different proportions in the above-mentioned jobs ($\chi^2 = 21.3$; df = 6; p = .0016). Farming is the main occupation for 38% of the EM mothers, 14% are workers, 8% white-collar workers, 15% staff members, 7% civil servants, and 14% entrepreneurs. For the Han mothers these figures are respectively: 41%, 8%, 10%, 18%, 2%, and 18%.

With regard to per capita family income, there are significant differences between Han and EMs ($\chi^2 = 11.37$; df = 5; p =.04). For instance, 43% of the latter make less than 7000 yuan a year. For the Han, this figure is 34%.

Equal Access to HE among EMs?

Not only are the pathways for Han and EMs different, but we also find differences between the EM groups (Zhang & Verhoeven, 2010). We give some examples for Yunnan.

Table 3. Proportional distribution of five EMs among all the EMs in Yunnan Province and proportional distribution of EM freshers in Yunnan Province (proportional parts of 10,000)

Ethnic minorities	*Population of five EMs per 10,000 (2005)[a]*	*Number of five EM freshers per 10,000 (2007)[b]*
Dai	826.45	741.2
Lahu	304.19	274.5
Naxi	199.75	370.6
Bulang	69.15	109.8
Jino	14.09	34.3

Source: [a] Tsung, 2009; [b] Zhang &Verhoeven, 2010

The proportion of the population of the Dai out of the total population of 25 EM groups in Yunnan is 826.45 per 10,000, whereas the proportion of freshers is only 741.2 per 10,000. These secondary school leavers do not easily find the pathway to a university. Hansen (1999) blamed the deficiencies on the language education of

the Dai. At home they speak Dai, but the language of teaching in school is Mandarin and this creates problems for the students. Moreover, the religious life of the Dai (Buddhism) does not favor the state education provided by the government, but it is the only way to come closer to the Han majority.

In comparison with the Dai, the proportion of Naxi who attend HE is much higher than their proportion in the EM population of Yunnan. Among this minority, Hansen (1999) observed a long tradition of high appreciation of education. They have a rich cultural heritage (e.g., the Dongba hieroglyphs) and an elite that knows how to preserve it. Although students are aware that they belong to an EM, they do not consider themselves backward, because one of the specific characteristics of the Naxi is a "love of learning."

Table 3 shows another interesting phenomenon that deserves more research. Lahu, Bulang, and Jino are seen by the Dai as inferior. These EMs live in poor, mountainous areas. School education is comparatively recent. For instance, the first Jino school started in 1956, and pupils were taught in Chinese. Han often regard them as primitive societies (Hansen, 1999). Nevertheless, a larger proportion of Bulang and Jino registered in HE than could be expected from their proportion in the EM population of Yunnan. This observation needs more research.

Among the 25 largest EMs of Yunnan in 2007, we found ten EM groups with a larger proportion of freshers than the proportion of the group in the population (Bai, Hui, Naxi, Bulang, Buyi, Pumi, Mongolian, Jino, Shui, and Man). Moreover, some EM freshers show a greater deviation from the proportion of the EM group than the other EMs in Yunnan. The Man (or Manchu) shows the highest discrepancy between the proportion of freshers (123.5 per 10,000) and their proportion in the EM population (7.1 per 10,000). This EM has had a place among the Han for a long time (since the Qing dynasty) and the Man do not face the same problems as other minorities. A long time ago they adopted Chinese as their language, supported education, and sat the imperial examinations.

The pathways to HE are not only different for the EM students as groups, but for individuals as well. Based on a random sample of 600 EM students in ten HE institutions in Yunnan we can make the following observations (Zhang & Verhoeven, 2012).

Two thirds of the students in this sample have fathers who are agricultural workers, 8% have fathers who are state administrators, managers, or private entrepreneurs, and 23.5% have fathers who are trained technicians, independent shopkeepers, or craftsmen. This observation supports the idea that the pathways to HE have been opened up to students from all classes. This is true, but we have to add some comments. Can we say that students have equal opportunities, when only 11.5% of students whose father is an agricultural worker had access to a key university, whereas 60.2% of students have a father who is an agricultural worker? Or, when 23.5% of the students at key universities are children of state administrators, whereas they comprise only 5.8 of the total sample?

Table 4. Proportion of students with a father who belongs or does not belong to the working class, shown by different university types (N = 592)

University type	*% of students whose father is:*	
	not working class	*working class*
Key universities	19.2	11.9
Public undergraduate universities	57.8	71.8
Advanced vocational colleges	14.4	12.6
Private colleges	8.6	3.7
Total	100.0	100.0

$\chi^2 = 14.79$; df = 3; p = .002. Source: Zhang & Verhoeven, 2012
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Table 4 also shows that key universities and private colleges open the doors more to students who are not from a working class background than to others.

The cultural capital that is shared in families with university-educated parents enhances the opportunities of children in comparison with their counterparts whose parents have only primary education or less. This also applies to Han students (Hannum, An, & Cherng, 2011) and in other societies (St. John & Musoba, 2011). Out of the students whose father is a junior college graduate or higher, 17.7% attend a key university and 9.7% a private college, whereas for students with a father with primary education or lower the figures are respectively 12.7% and 1.6%. With regard to the educational level of the mothers, these figures are respectively 18.2 % and 22.7% for students whose mother graduated from college, and 11.2% and 1.6% for students whose mother had primary education or lower.

HE is expensive and it is clear that this is a serious problem for many students, EMs and Han alike (Hannum, An, & Cherng, 2011). Families with an annual per capita income of less than 1000 yuan have difficulties in paying a tuition fee of 4800 yuan or more (in private colleges). About 50% of the students had an annual family income of less than 1000 yuan, and 32% an income between 1000 and 5200 yuan a year. Figures also show that students from families with an income higher than 5200 yuan have much more chance of getting a place in a key or a private university than other students. More students with an income of less than 5200 yuan a year attend public undergraduate universities than students with higher family income.

Qiao (2010) reported that Xie Weihe and Li Xhuelian (2000) observed "the proportion of rural children in schools decreases as the rank of the school in question rises." The same has been noted among the EM students: only 11.7% of the rural students had access to key universities compared with 21.9% of the students living in provincial cities. The figures for private colleges are respectively 2.7% and 15.6%, for vocational colleges 13.3% and 9.4%, and for public undergraduate universities

72.3% and 67.8%. Rural EM students have fewer opportunities than their urban counterparts.

Male and female students have different preferences for HE. More female students opt for private colleges (7.5%, 2.6% for men) or vocational colleges (14.3%, 11.5% for men). Male students more often choose public undergraduate universities than women (respectively 72.1% and 63.9%).

The pathway into HE certainly relates to the entrance exam. The highest score was found among the students in key universities (M = 532.7; SD = 64.1), followed by students in private colleges (M = 436.4; SD = 80.6), public undergraduate universities (M = 405.1; SD = 78.5), and vocational colleges (M = 395.7; SD = 60.2).

This observation was confirmed in 2013 by Zhang & Wang (2014) in their study of final year students in senior high school. The higher their self-reported achievement, the higher the proportion of students who believe they will attend a key university ($\chi^2 = 47.32$; df = 16; $p < .0001$). The second most frequent choice is public undergraduate university. However, do we find the same relationships among these undergraduate students as among university students? Table 2 shows that 89% of the students think that they will find a place in a key university or a public undergraduate university (this observation was made before students took the entrance exam). This is a rather optimistic opinion. The future will show whether this will be confirmed.

The following observations are confined to the candidate students who choose a key or a public undergraduate university. Here the same inequalities as among the university students are not observed. No significant difference is apparent between students according to the educational level of the father or mother, or according to the occupation of the parents. Both types of universities equally attract students, although the educational level or occupation of the parents may be different. There is not even a significant difference depending on the income level of the family. Nevertheless, it should be stressed that students from the most wealthy families more often choose public key universities (77%) than public undergraduate universities (23%). Students who believe that they will end their study with a PhD clearly more often choose a public key university (74%) than a public general university (26%) ($\chi^2 = 15.05$; df = 3; $p = .002$). Further, just like other university students, female candidates significantly more often choose public key universities (60.3%) than male candidate students do (49.5%). In interviews, two answers were repeated: 1) public HEs always have high prestige and better educational resources; 2) most parents and students look down on vocational colleges.

CONCLUSION

Equal rights for all citizens, whatever ethnic group they belong to, is one of the basic principles of the Constitution of the PRC. This principle was laid down in different laws from the beginning of the establishment of the PRC. However, in spite of all

these laws, are the economic and cultural positions in a mainly Han society still experienced as more advantageous for the Han than for the EMs. Numerous measures have been taken to improve the position of the EMs. Autonomous prefectures and regions for EMs have been established and give them the opportunity to develop policies that could advance the development of their people. Moreover, the national government has contributed with many measures to improve the economic and cultural position of the EMs. Nevertheless, it is still safe to say that these measures have not assured that EMs have attained the same economic position as the majority and further, the educational opportunities for EMs have not always suited them.

Indeed, EM children start in the educational system with a serious shortfall and the provided help can hardly compensate for these arrears. Many EM children do not have the necessary cultural, social, and economic capital to develop equally in Han society. This is visible in the different pathways they have to follow to arrive in HE. Economic weakness and cultural and social differences from the Han make the route along infant, primary, and secondary schools hard for many. The last pathway, secondary school and the entrance exam for HE, is not attainable for many of them and means that on average, the access to HE for EMs is smaller than for Han. For many EM students, access to HE is not easy.

Research among students in Yunnan Province shows that Han students have more chance of entering HE and have more access to better HE institutes than EMs do. Final year secondary school students, both Han and EMs, dream equally of having access to the best universities, but many are aware that this is a dream. Han believe more than EMs that they will be accepted in the best universities, but both have stronger expectations than the best universities allow.

There is not only inequality between Han and EMs, but also among the EMs. Data has shown that some EM groups have greater access to HE than others. Moreover, there is also inequality of access to the different university types depending on the cultural, social, and economic capital of a student's family. For instance, children of parents who are not working class have greater access to top universities than working class children, and students from families with fathers and mothers who graduated from HE have more access to the best universities than the others. This is different for secondary school students. We see that the expectations of final year secondary school students are very similar. No significant difference is observed between students with fathers and mothers with different occupations, education, or family income. However, female students or students who aim to attain a PhD are more likely to see themselves in the better universities.

In spite of the preferential policy for EMs, it will take more time to make a society where all ethnic groups will meet more equality. Equal access to HE is one of the aims that still needs to be pursued. It will be a challenge for leaders to make a policy in which there is an equilibrium between the recognition of the rights of the EM groups to develop their own culture on the one hand and to make these EMs stronger so that they can live as equals among the majority on the other hand.

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7. A GLIMPSE OF QUALITY AND EQUITY ISSUES IN EDUCATION IN WEST CHINA

A Narrative Inquiry into a Novice Mongolian Teacher's Life in Northwest China

RESEARCH CONTEXT

This chapter is part of a narrative study in novice teacher induction through their transitional years from a pre-service student teacher to a qualified in-service teacher, which has been developed and contextualized in the *Teacher Education Reciprocal Learning Program* between the University of Windsor and Southwest University China (Xu, 2011a). Shijing Xu at the University of Windsor first initiated the program with Dr. Ling Li in 2009 and has it fully developed with Dr. Shijian Chen and colleagues at College of Teacher Education, Southwest University (SWU) China. Since June 2010 the program has grown into a strong partnership between the University of Windsor and Southwest University with more new collaborative initiatives, with the Greater Essex County District School Board (GECDSB) as a key partner.

Recently, Shijing Xu, with the University of Windsor as the lead institution, collaborated with Dr. Michael Connelly at OISE/University of Toronto, in partnership with four Chinese universities and two Canadian school boards and succeeded in their application for a seven-year research project funded by Social Sciences Research Council of Canada (SSHRC) Partnership Grant (Xu & Connelly, 2013). The current study in discussion is hence following the research framework of the large SSHRC Partnership Grant project built on the *Reciprocal Learning Program* (Xu, 2011a) and the *Canada-China Sister School Network* project (Connelly & Xu, 2009–2012). Our focus in this paper is on the novice teacher induction by tracing the narrative path of Guli, a novice Mongolian teacher, who participated in the *Teacher Education Reciprocal Learning Program* and made a three-month study trip to Faculty of Education, University of Windsor when she was a pre-service student at Southwest University and who is now a school teacher at an ethnic minority school in northwest China.

The *Teacher Education Reciprocal Learning Program*, as proposed by Xu (2011a), is to "provide an exceptional cross-cultural experience with international engagement, [and] to broaden teacher candidates' horizons for a society of increasing diversity in today's globalized world." Ju Huang, who took the first group of SWU

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 137–161.

pre-service students to Windsor as a guide teacher in fall 2010, participated in the *Teacher Education Reciprocal Learning Program* not only for three months with the first SWU cohort, but also for the past three years as a doctoral student and a graduate assistant working with Shijing Xu in the *Reciprocal Learning Program*. She has been able to learn firsthand about Canadian schooling and teacher education, while witnessing the cross-cultural learning impact on the program participants for their professional development from teacher candidates to school teachers. Both Xu and Huang have kept in touch with the program participants through QQ groups. QQ, like Facebook, provides a social communication virtual space where people can post personal blogs and photos as well as communicating with each other through individual or group instant messages, audio calls or video calls, and QQ mail.

SOCIOCULTURAL BACKGROUND OF THE STUDY

China is "a united multi-ethnic state founded jointly by the people of all its ethnic groups" (Information Office of the State Council of the People's Republic of China, 1999, para. 1). Multiculturalism has been implemented as a policy in China since the 1950s. Fifty-six ethnic groups are identified in China, among which the Chinese national majority, known asthe "Han" (汉族), comprises 90.66% of the total population. The Han ethnic group is the result of "a historical process that amalgamated diverse ethnic and culture elements into a socio-politico-cultural collective under the historical term 'Han'" (Wu & Han, 2010, p. 237). Officially, 55 minority groups, representing approximately 110 million people that account for 9% of the total population, are recognized in addition to the Han majority (Information Office State Council of the People's Republic of China, 1999). These minority groups are continuously increasing and seem to be growing approximately seven times faster than the majority of Han Chinese (Veek, Pannell, Smith, & Huang, 2007). The one child policy has been implemented mainly among Hans. Most of the Hans reside in eastern or central China (Veek, Pannell, Smith,& Huang, 2007). Most of the minority nationalities, on the other hand, inhabit the inner border regions in northeast, northwest and southwest China (Veek et al., 2007). According to Sun (2004), there are about 120 mother tongues in minority regions, among which "only 30 minority languages have written scripts and 20 languages have less than 1,000 speakers" (Wang & Phillion, 2009, p. 1). Mandarin[1] Chinese, known as Putonghua in Mainland China, has been promoted nationwide as a national common language since 1956 (Zhou, 1999), and according to Zhou (2004), Mandarin is "offered in ethnic minority schools starting from Grade 3 in minority regions" (Wang & Phillion, 2009, p. 1). Most minority groups have their own mother tongues, except for Hui and Manchu people who speak Mandarin Chinese (Zuo, 2007). The Manchu people used to speak the Manchu language that has many dialects as well as the standardized Manchu with its unique script, but with the collapse of the Qing dynasty, very few Manchu people speak the language (Tong, 2009).

Northwest China includes Shanxi, Gansu, Qinghai provinces, Ningxia Hui Autonomous Region, and Xinjiang Autonomous Region. It is an area of close to

50 ethnic minorities (Wang & An, 2012). For example, in Qinghai province, 46.98% (2.64 million) of the population is ethnic minorities including Tibetan (24.44%), Tu (3.63%), Hui (14.83%), Salar (1.90%) and Mongolian (1.77%) as five major minority nationalities (Yan, 2013). In Xinjiang Autonomous Region, there are more than 47 ethnic groups including Uyghur (12.6%), Kazak (9.3%), Hui (3.6%), and Mongolian (5.9%) (Ma, 2009; Ma, 2011). Hence, Mongolian is one of the minorities among the ethnic diverse population in this region.

According to Ma (2009), schools are divided into two parallel systems based on the language of instruction: The first system is called "school of minority language system" (minority school), in which local language is the instructional language. This system may be further divided into schools taught in Uyghur language, Kazak language, and Mongolian language schools. The second system is called "school of Putonghua system" (Han school), in which instructional language is Putonghua. Geographical differences in ethnic composition of local populations led to the phenomenon of Han students attending minority schools, minority students attending Han schools, and portions of minority students attending schools of other ethnic groups (for example, Kazak students attending Uyghur schools or vice versa). Meanwhile, there are Han teachers in minority schools and a few minority teachers in Han schools (Ma, 2009, p. 203).

LITERATURE REVIEW

The challenge of ethnic minority education, according to UNESCO (2000), has become international urgency. China recently announced a 10-year commitment to school education: *Outline of China's National Plan for Medium and Long-term Educational Reform and Development* (2010–2020) (Ministry of Education, People's Republic of China, 2010).The Outline emphasizes the importance of teacher development in minority-inhabited areas and states, "cultivation and training of teachers for minority-inhabited areas shall be intensified" (Ministry of Education, People's Republic of China, 2010). As Ha and Teng (2001) state, we have to pay special attention to teachers' professional development in minority-inhabited areas since teacher quality contributes to students' outcome.

Northwest China and the development of local minority education have been constant concerns in both government and academic spheres. According to Wang and An (2012), "Northwest ethnic education played a very important role in the economic and social development and the improvement of the population quality in Northwest China" (p. 13). Issues of quality and equity have been the key concern in the development of education among the ethnic diverse groups.

Language maintenance is always a big issue in multicultural education (Cummins, 2000, 2007; Nieto, 2009). Many studies have provided evidences of the benefits that bilingual education brings to the children (Cummins, 2000). The *Outline of China's National Plan for Medium and Long-term Educational Reform and Development* (2010–2020) states that "no effort shall be spared to advance bilingual teaching,

open Chinese language classes in every school, and popularize the national common language and writing system" (Ministry of Education, People's Republic of China, 2010). As Feng (2005) asserts, in the last two decades, policies and official publications have placed a high premium on the notion of 'Min-Han jiaotong' (民汉交通), which means, "people master both the home language and standard Chinese, as the ultimate goal of bilingual education for minority education" (p. 531). Bilik (1998) claims that there are few opportunities for academic advancement or social promotion for Mongolian/Uyghur monolinguals in the autonomous region, and even nationwide (p. 53). According to Bilik, it is urgent to examine China's minority language policy and practice to discover the discrepancies between its minority policy and practice and to take measures to maintain minority languages and protect minority groups' language rights.

How to balance the development of minority language, English and Putonghua of minority students is a concern (Postiglione, 2009; Bai, 2008). There is a pressing need for teacher education to respond to the increasingly diverse teaching contexts in China, especially in the southwest and northwest regions. However, studies have shown that Chinese teacher education emphasizes pedagogical training, whereas the discourse of diversity and multiculturalism has been neglected (Bai, 2008; Meng, 2007). Postiglione (2009) points out a critical problem of a lack of qualified teachers with strong cross-cultural awareness: some minority teachers may use Mandarin for daily conversation but cannot teach courses in Mandarin. On the other hand, few Han teachers learn minority languages in minority schools (p. 183). He argues that multi-ethnic diversity is increasingly prominent in Chinese society. Wang and Phillion (2009) are concerned that the teacher education curriculum in China does not respond to the needs of the society of diversity as a whole.

Teacher induction, according to Feiman-Nemser (2001), occupies a special place within the continuum of a teacher's career, "looking both backward to pre-service teachers' preparation and forward to the career of teaching" (p. 13). Despite the numerous researches that discuss teacher induction and beginning teachers' beliefs, inadequate attention has been given to Mongolian Education and Mongolian teachers' perspective on the educational landscape (Shi, 2011; Wu & Wurenbilige, 2012). The research discussed in our paper is to explore and understand the cross-cultural learning experience of a Mongolian novice teacher who participated, when a third-year pre-service teacher education student, in the *Teacher Education Reciprocal Learning Program* between University of Windsor and Southwest University China, and to study its influence on her teacher induction.

RESEARCH QUESTIONS

What are the Mongolian English teacher's perceptions of language issues in a Mongolian school in a northwest region of China? How has the cross-cultural learning in Canada influenced the Mongolian teacher's first two years of teaching

in a minority ethnic school in Northwest China? What are the main challenges and opportunities a minority teacher encounter in her transitional teacher induction period?

RESEARCH METHOD

We have adopted narrative inquiry (Clandinin & Connelly, 2000; Connelly & Clandinin, 2006) as our research methodology in our study of Guli, a novice Mongolian teacher who participated in the Reciprocal Learning Program when she was a teacher candidate and she is now an English teacher at a Mongolian school of both primary and secondary grades in northwest China.

Narrative inquiry places an emphasis on thinking narratively rather than on implementing fixed research procedures (Connelly & Clandinin, 2006; Xu & Connelly, 2010).

We follow Connelly and Clandinin's narrative inquiry framework, three dimensional narrative inquiry space; i.e., temporality, sociality and place (Clandinin & Connelly, 2000; Connelly & Clandinin, 2006) when we trace Guli's personal and professional growth in a past-present-future continuum, and focus on the interactions of people in her "life space" and observe how her lived experience "unfolds in a particular context" (Xu & Connelly, 2010).

In this narrative inquiry, interviews, participant observations, QQ and email correspondences and document analysis support the findings. Field notes collected from Guli can be traced back to 2010 when she, as a third-year SWU student, visited University of Windsor and local schools as a participant in the *Reciprocal Learning Program* developed and coordinated by Shijing Xu, with Ju Huang as the first SWU cohort guide teacher.

GULI'S NARRATIVE OF EXPERIENCES

Guangming Mongolian School and Guli: The Minority among the Minorities in Northwest China

Guangming Mongolian School was founded in 1950's. It has 928 students from Grade 1 to Grade 12 (an all-inclusive primary, junior and senior high school) with 610 Mongolian students and 318 Han students. Most of the students are from one city and two counties nearby, including half of the students from the pastoral areas around the city in a Mongolian Prefecture in a northwest province where a mix of Hui, Mongolian, Kazak and Uyghur people are the major residents in addition to the Hans.

Historically, principals of Guangming Mongolian School have been Mongolian. There are 96 teachers with only a few Han teachers. Bilingual and trilingual education has been promoted in its senior high school from 1988. Since 1998, its junior high

school has implemented bilingual teaching and has started to have English as one of the subjects. Guangming Mongolian School has set up bilingual classes in Grade 1 from 2010.

There are two bilingual education models of instruction in Guangming Mongolian School: Model One – the instructional language is the Mongolian language except some science classes; Model Two – the instructional language is Putonghua and students take a Mongolian language class. The school has also enrolled Han students in Han Class in the recent years due to the declining enrollment of Mongolian students. Han students make up 54.4% of the school population, who only learn and speak Putonghua (Mandarin Chinese).

Guli is Mongolian who grew up in a middle class family from a Mongolian prefecture in northwest region of China. However, she could not read and write in Mongolian since she attended Han primary and secondary schools where the medium of instruction was Putonghua. She only learned the alphabets of the Mongolian language in Grade Seven for one semester. From Grades 10–11, she went to attend a key high school in Hubei province with 30 classmates from the same high school under a "pairing-assistance" (对口支援) program (students in minority-inhabited areas get help from their counterparts or study at inland parts of China). This experience, according to Guli, was "full of excitement. She experienced how hard working high school students were in Hubei province. The head teacher treated us very well and she went to our dormitory to wake us up gently and pushed us to go to the morning independent learning class at 6:30 am on week days."

Guli's mother was a teacher in an elementary school. She wanted Guli to be a teacher like herself since "it is a stable and respectable job for girls". Thus, Guili, as a *Min kaohan (民考汉)* student (minority students who take Gaokao – the college entrance exam in Chinese), was enrolled in preparatory class and then attended in a teacher education program with *educational technology* as a major and *English* as a minor in Southwest University.

Guli, who was initially not very self-motivated to become a teacher, participated in the *Reciprocal Learning Program* as a third-year pre-service student and visited the University of Windsor and local schools in Canada for three months. This international cross-cultural learning experience has significantly changed her perception of the minority languages and her Mongolian and Chinese identities as she sat in Canadian pre-service classes in which cultural diversity and multicultural education were the main focus. She was exposed to an ethnically, culturally and linguistically diverse learning setting both at university and schools in Windsor Canada, which helped her develop multicultural awareness. As a program requirement, Shijing Xu required all participants to keep observation notes and write a weekly reflection on their cross-cultural day-to-day lived experience and guided them to reflect on what a teacher they would like to be after they returned to work in China. Guli's participation in the *Reciprocal Learning Program* in 2010 enabled her to become an English teacher in this Mongolian school even though her major was *education technology* with *English* as her minor.

Guli's Passion in Teaching after Her Canadian Study Trip

Guli got fascinated with literature in bilingual education during her study visit in Windsor. She recalled that the teacher education program had a few courses on minority cultures in China, which were "presentations of the customs of different ethnic minority groups" (personal communication, June 30, 2014). Guli whole-heartedly believes in what is advocated in bilingual education. She was glad to know that bilingual education had been promoted in Mongolian schools in recent years and "Mongolian students have the chance to learn Mongolian and Putonghua at the same time." Guli admired the fact that her sister went to Guangming Mongolian School and could read and write in Mongolian. Her sister is also fluent to communicate in Putonghua. Guli noted, "My older sister's bilingual competence in Mongolian and Putonghua benefits her professional career" (personal communication, May 25, 2011).

In her teaching practice, Guli was eager to share what she saw and experienced in Canada with her students.

> During my practicum, there was a lesson called *Travel* in Grade Six. I shared with students my experience in Canada. They were thrilled to find that travelling abroad could happen in their lives or among the people around them. They realized that learning English could be useful. (Personal communication, March 03, 2014)

Guli appreciates what she learned in the study trip and said,

> The Canadian trip motivates me to be a good teacher. I like Canadian students. They studied happily. They were confident and active. This experience has inspired me to be a teacher who can make students confident and happy. (Personal communication, December 23, 2011)

With the hope of helping ethnic minority people, Guli, upon returning to China, volunteered to do her practicum in a small Han-Hui Elementary School (the school consists of Han students and Hui students, as well as Uygur students) in a minority-inhabited area in a northwest province of China. Guli said that the school had only 21 teachers, seven of whom were volunteer teachers. There was a lack of qualified teachers.

Guli's Puzzlement during Her Practicum

Guli taught Grade One Chinese and Grade Six English during her practicum in a Han-Hui Minority School in northwest China. She was surprised to find that some minority students in Grade One had difficulty in communicating with teachers in Putonghua (Mandarin Chinese). And minority students of Grade Six could not compose a good essay in Chinese as other Han students did. Guli recounted her memory of a boy in her Grade One class:

> I felt there was something wrong with a boy in my class when I started my school placement. He sat there, staring blankly at me when I was teaching. I asked my associate teacher whether there was something wrong with him. The associate teacher said the question was asked repeatedly by other student teacher volunteers, but the fact was that the boy could not understand Putonghua at all. I asked why his parents did not send him to a Uygur school. The associate teacher replied that his parents worried that the quality of education in Uygur schools was not good and Chinese is more and more important now. Therefore they did not send him to Uyghur School. But it was very inconvenient if he could not understand a single word at school. (Personal communication, July 17, 2013).

Guli's Decision to Teach in Guangming Mongolian School

Being inspired by the multicultural education in Canada, Guli began to trace her cultural root by self-studying written Mongolian. In the conversation one year after the Canadian study trip, she noted,

> I realized how important to keep Mongolian culture and strengthen my own identity to be a member of Mongolian ethnic group. I took a Mongolian language class to learn to read and write after I came back from Canada. Some Mongolian students taught the (Mongolian language) classes voluntarily in the university. I learned from alphabets and am learning the Grade Two Mongolian language books now. (Personal communication, May 25, 2012)

During one of the reunion events when the program participants gathered in June 2012 at SWU, Guli told us that she decided to go back to her hometown-a Mongolian prefecture in northwest region of China- to teach in a Mongolian school with the hope of making contributions to the quality of education for Mongols. She was happy to teach English rather than technology. She had lots of plans for the future like pursuing Master's degree while teaching. Her boyfriend told her, "It may take time to adapt to the new environment. Do not have too high expectations at the beginning of teaching. It would be wonderful if you could make progress without any obstacles" (personal communication, June 3, 2012).

After teaching in Guangming Mongolian School in Northwest Region of China, Guli encountered lots of struggles and was almost at the point of quitting the teaching profession.

Guli's Puzzle: Is It Necessary for Mongolian Students to Learn English?

For Mongolian students in the minority area, English is the second foreign language and Putonghua is their first foreign language. Since Han students in Mongolian school will take English examination in the Entrance Examination to Universities, Guli decided to teach English in Han classes in Grade 10 although she had wished

to promote bilingual and trilingual education among the Mongolian students. Some time after she began to teach, she started to feel puzzled about the necessity, feasibility and practicality of bilingual education and trilingualism.

> Many people call for trilingualism; that is, learning Mongolian, English and Putonghua, but the feasibility of this idea still hangs in the air. It is good for Mongolian students to keep their self-esteem and strengthen their ethnic awareness through learning the Mongolian language. I am worried whether a student can learn both Putonghua and Mongolian well, let alone English. What benefits are there for them to learn English? (Personal communication, July 03, 2013)

Guli's Dilemma: "I Wish to Help with Bilingual Classes but I Am Overwhelmed by My Workload"

Guli seldom speaks Mongolian at school. She is worried that more workload can be assigned to her if the school administrator knows she is fluent in Mongolian. One time, when she was a proctor in an exam, some Mongolian students made noises when the exam had begun. When some fellow students asked them to be quiet, the noisy students did not care and said, "It doesn't matter. The teacher cannot understand us." Hearing this, Guli disciplined them in Mongolian and asked them to be quiet, which surprised everyone.

About 90% of the teachers in her school are Mongolian. There are gaps of age among the Mongolian teachers, who are either in their 40s or 20s and almost no one is in his or her 30s. Most novice teachers are in 20s, like Guli, who went to Han schools when they were little, and hence their Putonghua is far better than Mongolian. For some of them, Mongolian is not used at home and they even cannot understand Mongolian. Guli said "we do not speak Mongolian at school due to the worry of being laughed at by our students if we make any mistakes" (personal communication, February 12, 2014).

Nevertheless, young teachers, like Guli, wish to make contributions to Mongolian Education. Guli said,

> Young teachers like us also would like to make contribution to the bilingual education. However, our workload is so heavy and all of us are Head Teachers (班主任) except one. We really do not have any extra time to help and contribute to bilingual classes and Mongolian classes. (Personal communication, October 10, 2013)

Guli's Observation: "Most of the Young Teachers are Unable to Teach in Mongolian"

According to her observation at the school, Guli said, only a few teachers are able to teach in Mongolian. Back to 10 years ago, when my older sister studied in this

school, teachers were all proficient to teach in Mongolian. If those teachers are not retired, they could teach in Mongolian (personal communication, October 14, 2013).

Hence, providing professional support to develop teachers' bilingual/trilingual competence is important in improving education quality in ethnic minority areas in northwest China. In another interview afterwards, we learn from Guli that teachers have been encouraged to develop and promote bilingual education and improve their Putonghua (Mandarin Chinese) proficiency since 2004. For example, in Xinjiang, a legislation policy was issued to improve bilingual education on the basis of maintaining native language and promotion of Putonghua in that region (People's Governance of Xinjiang Uyghur Autonomous Region, 2004).

Nevertheless, according to Guli, the teacher training focus in her school has been shifted to improve teachers' Mongolian language and to strengthen Mongolian identities of teachers in recent years. For example, a Mongolian language night class has been open to teachers since winter 2012. However, since the course was at night, there were only 2–3 teachers who participated in the class each time. Guli commented,

> It was great to offer opportunities for teachers to learn Mongolian. But young teachers like us have too much pressure at the beginning of our teaching and we do not have much time to attend the Mongolian class in the freezing winter night. Besides, the instructors were veteran Mongolian teachers, who taught with the teacher-centered approach. It was so boring. It would work better if the Grade-One Mongolian teachers teach us instead of the veteran teachers. (Personal communication, June 26, 2014)

Guli told us that from August to October 2013, the school invited some teachers from Inner Mongolian Autonomous Region to help train the teachers how to teach their classes with Mongolian as the instructional language. However, "most of young teachers could not understand their Inner Mongolian accent because the invited Inner Mongolian teachers spoke Mongolian with a dialect that was hard for us young teachers in northwest region of China to follow." How did teacher learn from the guest teachers? Guli said,

> School administrators asked us to observe their class and we could just focus on how the guest teachers organize the class if we could not understand their Mongolian. I went to observe their class one time and I spent the whole class to figure out what they said. (Personal communication, October 14, 2013)

Guli reflected on the differences of bilingual education between her school and the Mongolian schools in Inner Mongolia Autonomous Region through her communication with the guest teachers.

> It is marvelous to know that Mongolian students learn classic Chinese and literature as Han students do in Chinese class in Inner Mongolia Autonomous

> Region. In contrast, students learn basic communications like "hello, how are you", "have you had lunch?" in the Chinese class in our school. Also, Mongolian students in Inner Mongolia learn Mongolian at a much more advanced level since the instructional language for all subjects except Chinese is Mongolian. Their overall quality is much higher than our students who just learn basic Chinese and are not fluent in Mongolian. (Personal communication, October 2, 2013)

Guli's Struggle: "I Want to Quit"

Guli talked about her first year experience in her school and described it as a period of depression, ambivalence, stress and doubts. She said she wanted to quit although she liked the teaching profession. She would be happy if she just taught English. However, as a Head Teacher of a class, she had to take care of all trivial things of the class that occupied most of her time. She felt she fell into a different world that she did not expect. Guli had 15 periods of classes each week in the first year. Besides the teaching workload, she had to stay at school from 9:00 a.m. to 7:00 p.m., and sometimes she stayed until the boarding students finished their evening classes around 10:00 p.m. She had only one day off on Sunday since students would also go to school on Saturdays in her school. She also volunteered to help with some administrative jobs in the school. She said,

> My workload was heavy. Things didn't go as planned at school. I regretted that I had said, 'let me have a try' when the Vice Principal asked me to be the Head Teacher of a Grade 10 Han class. Since I'm a new teacher, I cannot say 'No' to a job duty like that. Maybe because of that, a lot of work came to me. Besides my teaching load and being a Grade-10 Head Teacher, I was also an assistant to help with some administrative work in the school. (Personal communication, March 23, 2013)

Besides teaching, how to deal with student behavior issues and manage the class as its Head Teacher troubled Guli. She said, since most of her students were from low socioeconomic families, she found it challenging to deal with some parent-teacher issues. Guli illustrated one of hard experiences she had encountered in the first year of teaching:

> It all started on an early Monday morning about 10 minutes before the flag raising ceremony. A parent was arranged to come to the school about his son's behavior. He came to see me at the staff room. He told me his son had come home extremely upset. He did not like the record book, which recorded aspects of the students' performance including attendance, lateness, assignments, and performance in class. His son was worried that he might be kicked out of the school. The parent criticized me, asking, "What kind of a teacher are you? What is your point to keep record on my son's misbehavior? Do you want to

> accumulate enough evidence and kick him out of school?" My limited response created space for him to continue a verbal attack. The parent continued to say, "You didn't give him any help. What is the function of school and teachers if you push students out of school? You haven't even apologized for being not responsible." I did not respond to his questions. I told him that I had to take the other children to the flag-raising ceremony. I left. When I was standing in the playground watching the flag rising, I was agitated and felt dizzy suddenly. I was sent to the hospital and the doctor claimed that it was due to the external irritation. (Personal communication, July 27, 2013)

Guli's Struggle: Hard to Adapt to the School Culture

Although Guli was born in a Mongolian community, she attended Han school since elementary school. She has struggled to adapt to the Mongolian school. She does not like school administrators' 'one-size-fits – all' kind of leadership style. She said, "They like to criticize novice teachers as if they were students rather than offering encouragement." She gave an example to illustrate her point:

> A plan was supposed to be submitted next Monday. I stayed up late to finish it and I was the first one who handed it in on Monday. However, several weeks later the director of the Office of Academic Affairs still accepted submissions or urged teachers to submit their plans. Everything is handled like this. If I follow others to submit something late for once or twice, the school administrators would point their fingers at me and ask me why I submitted it late. They have different standards for experienced and novice teachers. (personal communication, July 17, 2013)

Guli does not like the staff room since teachers and students do not have privacy in the staff room. When teachers reprimand their students, other teachers in the office do not offer privacy. Rather, they tend to make comments in Mongolian when she talks with Han students in Putonghua. They do not know she can understand Mongolian. To avoid their comments, she has no choice but take her students to the corridor to talk with them.

> One time, I talked with one of my students in the office. I moved a chair and asked him to sit down. As soon as he sat down, a senior teacher made a comment to the student, "How come you sit down as an equal to your teacher!" I told my student to ignore what the senior teacher said. I also gave the student a glass of water. Some senior teachers tended to offer uninvited comments sarcastically when I was talking to my students, "You young teachers have so much time and energy to talk with students." We beginning teacher insist on the principle of mutual respect between students and teachers." (G.L. Ma, personal communication, March 10, 2014)

Most beginning teachers appreciate the informal assistance from veteran teachers. In a school-based mentorship program in Guli's school, mentors work in the same grade with novice teachers, assigned by school administrators on the basis of seniority. Guli finds that some mentorship is only "on the paper of writing mentorship plan and report" (personal communication, August 7, 2013). The mentoring program is not what she has expected.

> Some mentors are very helpful. A head teacher, who is the mentor of a novice history teacher, teaches the beginning teacher how to organize a class meeting patiently. However, I do not think I have learned anything from my mentor. Although she has only eight periods of classes each week, she has never observed my classes, or offered any advice to me. I had to fill out all forms of mentoring at the end of the semester for her. I felt some mentor teachers took advantage of us novice teachers sometimes. For example, I ordered 130 copies of an English newspaper, which hence came with a DVD that included some lesson plans in PowerPoint. I modified my lesson plan PPT sets according to the sample lesson Plans on the DVD. When my mentor saw them, she asked me to copy my PowerPoint slide to her computer. Besides, I do not like her "one-size-fit-all" kind of classroom management, which means students have to listen to her. (G.L. Ma, personal communication, October 10, 2013)

Guli's Disappointment: Low Academic Requirement in the School

Guli was disappointed by and worried about students' low academic achievement in the Mongolian School. She had been especially fond of this school because her older sister graduated from this school ten years ago. Her whole family liked it because the school was known for its good quality of teaching and teachers back then. Now they are surprised to learn that the school has a declining reputation in well preparing students academically. According to Guli, more and more Mongolian students chose to go to Han schools rather than attending minority schools in recent ten years. Guangming Mongolian School started to recruit Han senior high students. However, many of the Han students who were enrolled in Mongolian school did not perform well in the entrance exam to senior high school. They came to the Mongolian school because this school's entrance requirements "did not involve entrance exam scores." Guli and her colleagues asserted, "Poor behavior of some Han students has negative impact on Mongolian students." They attributed it to one of the reasons of declining students' achievement. The good news was that the local school board noticed the problem and requested that the Mongolian school set up minimum entrance exam scores for recruitment.

Unlike in a regular school where every student has set a goal for university education, Guli said, "teachers in this Mongolian school do not have high expectations on most of the students' academic achievements, as the pressure of entrance examination to universities is not heavy and students do not have solid knowledge foundation":

> Only eight or nine students of the whole school can get to a good university due to the overall student academic background. Students tend to make little progress after three years in the senior high school no matter how much time and effort teachers have spent on them. They would not show respect to their teachers, let alone appreciating the teachers' efforts. To some extent, they are hopeless. (Personal communication, March 6, 2013)

Due to heavy workload, Guli was sick at the beginning of the second semester. Discipline was an important and also difficult task in everyday education. According to Guli, the students were not interested in learning the knowledge points that National Entrance Examination had stipulated, and hence what teachers did was to superficially explain the textbook. It was like reading a book to the students. Thus, her lesson planning was very simple and she did not need to work very hard on teaching language points. Sometimes she just had a quick glance of the textbook and then went to teach students. She felt that her English was digressed.

After a discussion at a homecoming gathering about their teaching lives with other *Reciprocal Learning Program* alumni, who have also become novice teachers, Guli remarked, "I do not need to teach with 'advanced' pedagogy as they (the other novice teachers teach at inland areas) do since we do not have so much academic pressure" (personal communication, July 11, 2013). "My role as a teacher is like a baby sitter, whose responsibility is to keep the students out of trouble from Monday to Friday." However, she admitted, "it would be meaningless to be a teacher this way (personal communication, July 27, 2013).

Guli's Changes in the Second Year of Teaching

Ju Huang met and interviewed Guli when she returned to her university to take Master of Education graduate courses in summer 2013. Ju noticed some changes in Guli after the first year of teaching that has become particularly interested in studying how to teach English to Mongolian students.

> I feel so good when I come back to study. I often talked with the professors who taught the graduate courses and feel inspired by them. For example the Associate Dean of Faculty of Foreign Languages met me for my master thesis topic. He has an extended experience in teaching in a middle school and he taught there for 8–9 years. I was inspired by his experience and it gave me some hope too. I was wondering whether it is God's plan to make me teach in the Mongolian school for a period of time. (Personal communication, July 17, 2013)

Guli said that after graduation from the pre-service program, she bought Mongolian textbooks and kept learning to read and write Mongolian through self-study. So far, she finished the textbooks of Grade Four Mongolian language. She tried to promote students' self-autonomy in her second year teaching.

> I have given students a chance to teach each other the language points this semester. In a group of four, the students had to cooperate with each other to teach one unit. One lesson may include 12 to 13 language points. When I lectured to the class, I noticed that many students appeared to be very sleepy. However, when their classmates taught the class, they would listen. Although it may take more time to let students teach the class, they have more interest to be taught by their classmates. (Personal communication, September, 2014)

Guli has gradually developed harmonious relationship and established trust with her students after one year. The more she has learned about the students, the more understanding she has gained about them. She felt much more relaxed and confident in managing the students in the second year than before.

> My students changed a lot. They are more mature and self-motivated since the second year. The changes are made by themselves. I used to ask them not to fall asleep and do some reading in the English class. Now, in my English class, they can spend class time on reading even though they do not necessarily read English. (Personal communication, October 2, 2013)

Guli's Research Interest: A School-Based Study on Trilingualism

In March 2014, Guli emailed both of us for advice on a grant application she made with her colleagues of *English Teaching and Research Group* in the school. Their school-based project is aimed at improving quality of bilingual education in Guangming Mongolian School. The proposal is entitled, *Investigation of English Curriculum and English Instruction in Guangming Mongolian School.* In her proposed study, she would like to find out bilingual students and teachers' attitudes in English learning, as well as the necessity of learning English in universities from bilingual high school graduates' perspective. One of her cousins has struggled in English learning at university, which aroused her interest in the topic. She noticed from her teaching practice that some Mongolian students did not pay enough attention to English learning. They hold the view that "If I do not go abroad or choose English as my major in the university, there is no point for me to learn English." "It is not correct", Guli argued that even though students could be enrolled in a university, they might not get the degree if they fail the College English B and 4 examinations. "English learning is very important in China" (personal communication, February 14, 2014).

Both of us sent Guli our suggestions on her grant proposal. In July 2014, Guli emailed us again with her good news:

> Dear Dr. Xu and Ms. Huang, Thank you very much for your support and advice for my proposal, *An investigation into the English curriculum and instruction to improve high school bilingual education in Guangming Mongolian School* and I must complete the project by the end of this year. The proposal is now

> granted as a Provincial Research Project in Northwest Region of China. This is such a wonderful opportunity for me to improve my teaching and research. This is also the first time for me to do real research in my teaching practice… Thank you both so much for your support. I will do my best and also keep you informed of the progress of my research. Your advice and suggestions would be much appreciated. (Personal communication, July 7, 2014)

One of Guli's wishes is that students can learn both Putonghua and Mongolian well. She thinks that the Mongolian language is an indispensable carrier of the Mongolian culture and it is important to improve students' self-esteem as a Mongolian. She wrote a reflection on Mongolian literature books at school in one of her M.Ed course work in 2014. This English course paper is entitled "A Comparative Study of Bilingual Education between Canadian Aboriginals and Chinese Ethnic Mongolians: From the Perspective of State Language Policy":

> I can not forget the scene in a Canadian aboriginal classroom [sic], which is all around hundreds of books in aboriginal language for different language level [sic], the classroom teacher told me that most of these books are all from the school board or the school [sic], students can read them for free and can also take them home as long as keep them well [sic]. However, I haven't seen it in any bilingual school in China [sic]. (M.Ed. course work, July 3, 2014)

In Guli's opinion, lack of quality books of Mongolian literature will hinder Mongolian students' learning. She further pointed out,

> [C]urrent curriculums [sic] in bilingual schools are the translated edition of the school curriculum, and the contents are designed by the Han children's psychological quality and life, which is unfamiliar to the ethnic children. (M.Ed. course work, July 3, 2014)

Guli suggested that a curriculum that was responsive to Mongolian students' way of knowing would help to improve their learning. She also hoped that Mongolian students could learn English well since the low level of English proficiency will have great impact on their future both at university and in their career.

Guli's storied experiences at Guangming Mongolian School is organized around language teaching and identity formation. The experiential narratives convey a sense of Guli's personal practical knowledge and teacher's identity as it takes shape in a multicultural context.

DISCUSSION

The experiential narratives of Guli are interesting and intriguing. The beginning teacher, who endeavored to be the best teacher she could be, was about to quit after the first year teaching. Now, having gone through the tensions, struggles, puzzles and doubts, Guli gradually quests further professional development through her

teaching practice as well as a Master of Education program offered to pre-service graduates at Southwest University. She gains a sense of achievement in teaching and research, which is manifested especially in her successful grant application for a school-based research project on bilingual education in the Mongolian school at the northwest in China. It is a great privilege for us to have the opportunity to follow the path of Guli's professional growth and learn so much about the educational issues and practical needs in minority teacher development and minority school education.

Language Issues and Schooling

As we have stated in the literature review, in Outline of China's National Plan for Medium and Long-term Educational Reform and Development (2010–2020), bilingual teaching is emphasized and the minority peoples' right to be educated in native languages "shall be respected and ensured" (p. 23). However, just as the studies of language use with the Mongolian language (Bilik, 1998; Feng, 2005; Ojijed, 2010) have discussed how the perceptions of the need for the Mongolian language to gain employment and participate in economic opportunities have influenced school achievement and language choice, the issues raised in the story of a Grade One boy in the Han-Hui primary school during Guli's placement reflects the dilemma faced by most minority groups in northwest China. This issue also indicates that minority schools, as Tsung and Clarke (2010) note, "have not been in a position to provide quality Chinese learning opportunities for minority students" due to "a variety of political and structural reasons such as a lack of teachers and resources" (p. 66). A number of issues exist in minority schools such as levels of teacher competency and support, home and school language gaps, and parental choice. Guli's stories reiterate that in terms of teacher education in minority-inhabited areas, it is imperative to enhance bilingual teachers' quality and professional development in northwest China. The Master of Education Program in Southwest University and in many other faculties of education of normal universities in China is one of the helpful approaches. Guli's stories show how she has been inspired and rejuvenated after taking the graduate courses back in her university. In her M.Ed., graduate course work she also reflects on and points out the importance of improving the quality of bilingual teachers. The fact that she worked with her colleagues to develop a school-based research project in bilingual education is a further step she has taken towards her education goals and dreams that she had held dearly to her heart at the beginning of her teacher induction journey.

Guli remarked that more and more Mongolian students chose Han school and the number of her school has been declining in recent years. She expressed serious concerns about students' quality in the Mongolian school. Bilik (1998) asserts that there is a "downward trend for Mongolian Education in urban areas" (p. 48). Many scholars point out that Putonghua appears to provide access to upward mobility while minority language "limits these opportunities" (Tsung & Clarke, 2010,

p. 66). These inequalities reflect a mismatch in linguistic and cultural capital between Han and minority schools. This phenomenon is known as "Escaping Mongolian for Han" (Mongolian students give up learning their native language and select to study Chinese language in Han schools) (Shi, 2011, p. 3). It helps to understand why the Grade-One boy in Guli's school placement was placed in a Han class by his parents even though he could not understand a word of Putonghua (Mandarin Chinese). It also explains that the enrollment of Mongolian students at Guli's Mongolian school has been declining in recent years.

Despite some research has been conducted on minority language issues in China (Ojijed, 2010; Tsung & Clarke, 2010; Zhou, 2004), very little attention has been given to the language issue of Mongols who are the minorities among the minority groups in northwest China. Guli has been worried whether Mongolian students can learn both Putonghua and Mongolian well, let alone English. We can see, from Guli's stories, the tensions and dilemmas between the need for maintaining students' native ethnic language and the importance of learning Putonghua, China's official national language, and English, the global language. Bilik (1998) asserts that the notion of "English and Chinese are carriers of the advanced and Mongolian is the underdeveloped is reinforced" (p. 50). Many Mongolians argue for trilingualism; that is "learning English and Chinese without sacrificing Mongolian" (Bilik, 1998, p. 51). As Ojijed (2010) argues in his paper on language attitudes among Mongols in an ethnic Autonomous Region, the motivation of Mongolians for learning Putonghua and English is "instrumental oriented" while they hold "positive attitudes towards learning and speaking their ethnic language in family" (p. 67). Guli's argument for the reason why Mongolian students should learn English is"instrumental oriented", instead of relating to her own cross-cultural learning experience.

Gaps between Educational Beliefs and Reality

There have been a lot of tensions between Guli's educational beliefs and the reality in a Mongolian School with students of low socioeconomic status who also have very low motivation in learning generally and much less interest in learning English. Guli had limited knowledge of the theories that may help her to understand the lack of academic success among minority students and to deal with the issues of classroom management. Guli spent much of the first year struggling to understand the tensions. These tensions emerged from her management of a Grade 10 class as its Head Teacher, from her communications with parents, from her way of treating her students as equal to the teacher, which is different from that of veteran teachers, and above all from the gap between her wish for promoting bilingual/trilingual education among the Mongolian students and the overloaded teaching reality and low-motivated students.

As the year progressed, Guli gradually acquired the increasing ability to deal with various issues in discipline, communication, classroom management and instruction.

Our follow-up study has also helped her to be a more reflective teacher. By the end of the second year, she felt that she had a better understanding of the students and their self-perception and personal histories.

According to Feiman-Nemser (2010), "induction is a process of socialization" (p. 17). This view of induction considers the unique process of learning to work within a new cultural setting that consists of colleagues, curriculum, and the organization. It is during this process that new teachers develop norms that accommodate the pressures of the various communities. For Guli, as an early career teacher, she was exceedingly vulnerable to being paired with a mentor who did not seem to provide good mentorship to her and she was also stressed out by the overloaded job assignment. A mentoring program would be ideal to help novice teachers' induction only if mentors are carefully selected based on appropriate criteria including their leadership potential and quality teaching, "rather than seniority" (Howe, 2005, p. 130). Mentors need specific training for their expanded roles.

Moreover, novice teachers' workload in the first year needs to be reduced. Howe (2005) points out that first-year teachers often have reduced responsibilities in Japan and in spite of this, "excessive workload imposed on beginning teachers is overwhelming" (p. 128).

Personal and Professional Identities

The tensions between languages, cultures and identities emerge in Guli's stories, too. Guli's first tension is about her identity formation to be a bilingual/trilingual member of the Mongolian ethnic group and a teacher in the Mongolian School. As a minority in a minority-inhabited area in Northwest China, Guli wished to be able to read and write Mongolian and hence make contributions to Mongolian education after her exposure to the multicultural education and society in Canada. While self-studying written Mongolian language, Guli has come to the understanding that language is not only a means of communication, but also an expression of one's cultural and ethnic identity. Guli wanted to make a commitment to identify herself as a member of the Mongolian people first, and then as a novice Mongolian teacher. At the outset of her teaching career, Guli felt puzzled at her professional identity and at the value of an English teacher in a Mongolian school. How far and how students should go with bilingual or trilingual education in a Mongolian school? Will the use of one language imply the exclusion of the others? These questions and doubts that used to make Guli perplexed during her initial teacher induction years have become stimuli that are driving her passion in her school-based research project on bilingual education.

Becoming aware of her new educational roles, she is gradually inspired to explore, research and recreate her identity as a Mongolian person and teacher. Being a Mongolian, Guli has a very strong sense of protecting and maintaining the mother tongue competence of the young generation. Guli's reflection on Mongolian

literature in curriculum and her call for more Mongolian books at school illustrate this point.

At the same time, the phenomena and new trends present in her school district also affect Guli's identity in the making. In Guli's school, a promotion of the Mongolian language has been restarted since 2012 after the 2004 promotion of teachers' Putonghua. Guli's school has made a great effort in maintaining the Mongolian language and culture, as well as strengthening the teachers' Mongolian identities. Although the training programs are well intended, Guli and other novice teachers do not seem to have benefited from the programs. Our narrative inquiry into Guli's lived experience shows thata bottom-up approach, which takes into consideration the novice teachers' personal practical knowledge may be more welcomed than the current top-down teacher-centered training program. Just like the Mongolian students showed low motivation in their schooling, the Mongolian teachers find the training is more of a burden to the first year teachers and discourages their interest in learning Mongolian. As a matter of fact, Guli's innovative pedagogical change in her own class shows that a learner-centered approach can be more motivating and engaging to the learners. The same should be true with the teacher training programs.

Life-Long Professional Support for Novice Minority Teacher Development

How to balance pre-service teacher education program and life-long teacher professional development is another theme emerging from Guli's stories. This study highlights the importance of teacher education, both pre-service and in-service, in professional development, and preparing prospective teachers for cultural responsive teachings. Sustainable support for professional development from a pre-service student to an in-service teacher has been provided by Southwest University pre-service teacher education programs, and enhanced cross-culturally and internationally through the *Teacher Education Reciprocal Learning Program* between Southwest University and University of Windsor. Southwest University is the key partner of the recently developed SSHRC Partnership Grant Project with a vision to provide life-long professional support to their pre-service graduates in their in-service teaching practice and turn them into future educators of the 21st century (personal communication with Shijian Chen & Yibing Liu, October 8, 2012 and May 15, 2013).

Guli's narratives show how much these programs have helped shape and develop her personal and professional identities as well as her career goals. Feiman-Nemser (2010) suggests that we view induction as a phase in learning to teach. From this perspective, induction represents an important transition between a pre-service program and the professional development opportunities.

Southwest University has demonstrated a good model to provide a continuous and life-long professional support to their pre-service graduates who have become

teachers in different provinces across China (personal communications with Y. B. Liu, June 20, 2012; S. J. Chen, November 11, 2012). The Master of Teaching (M.Ed.) is for their pre-service graduates who have good records in both their studies and teaching. These teachers are not required to take the entrance exams and are able to take a blend of distance learning and face-to-face courses during winter and summer holidays (The Central People's Government of the People's Republic of China [CPGOPRC], 2010; Y. B. Liu, personal communication, September 2013). Among the 38 pre-service graduates who participated in the *Teacher Education Reciprocal Learning Program* in 2010 and 2011, 27 returned to SWU for their Master's degree after one or two years of teaching in schools in the summer. Guli expressed her enjoyment to come back to study in the SWU M.Ed. program in her journal:

> I am so glad to have come back to this place. It is not about how much knowledge I'll attain in these days, but about an enjoyable journey which offers me access to this group of professional and inspiring professors, all of whom are really good models for us! Seriously, it is so nice to be a student again. (Journal of Guli, July 12, 2013)

Cross-Cultural Teacher Development

We have been tracing Guli's identity development since she moved back and forth between Han and Mongolian cultures through an East and West reciprocal learning journey amid the rapidly changing world. Guli who graduated from education programs outside of minority-inhabited areas in China, however, has been challenged by the discontinuities of Mongolian language and culture in her life. In Guli's narrative, she regretted that she was not able to read and write Mongolian due to the fact that she went to Han school. Her pre-service program, as she illustrated in an earlier section, did not prepare her sufficiently to be culturally responsive teacher. Therefore, cross-cultural and global awareness to pre-service teacher education program need to be enhanced.

Howe and Xu advocate (2013) *transcultural teacher development* and they note that it will help to "see the world in different ways by appreciating different cultures" (p. 37). Xu writes about the importance of "use of intergenerational family narratives and reciprocity and reciprocal learning as a way of linking life experience, teacher education, and the world of teaching our students enter" (Xu, 2011b, p. 265; Xu, 2006). Guli would relate to her own cross-cultural learning experience to argue for the importance for Mongolian students to learn English. Her experience of visiting aboriginal people inhabited area and aboriginal schools in Canada, as well as her exposure to literature in multicultural education and her participation in the *Teacher Education Reciprocal Learning Program*, open up possibilities for establishing a link between cross-cultural lives and identities in multicultural contexts.

Guli sees the value of the Ministry of Education curriculum and calls for a curriculum to demonstrate Mongolian history and written in Mongolian'sway of knowing. Similarly, Cherubini, Niemczyk, Hodson, and McGean (2010) assert the need for restructuring the relationship between schools and aboriginal world views. Guli, As a Mongolian teacher, Guli accentuated Mongolian students' need to know about their past by reading Mongolian literature and understand their present socio-cultural circumstances in multicultural society.

CLOSING REMARKS

As we can see, Guli's experience from being a pre-service student in Southwest University to an in-service teacher at Guangming Mongolian School involved in the numerous story threads that formed and supported her identity development as an English teacher, head teacher, trilingual person and Mongolian. Of all, her realization that the Mongolian culture and language should be kept took place during her participation in the *Teacher Education Reciprocal Learning Program*. She embraced the meaning of multicultural education and willingness to apply it to the Chinese context. She was disappointed at the students' behavior and her workload to be a head teacher. Nevertheless, she gained confidence through her practices at the demonstration class and teachers' speech contest. She became interested in trilingualism and started to research on it.

What we have shared here only capture some nuances of some complex issues of bilingual and multicultural education in China through our narrative inquiry into a novice Mongolian teacher's lived experience in a Mongolian public school in northwest region of China. We see urgent needs and challenges to provide professional development support for novice teachers, particularly language teachers in minority-inhabited areas in Northwest China, who have to deal with both bilingual and trilingual challenges. We have observed more changes that have taken place in Guli than what she is self-aware of. Guli's journey is in accord with certain stages of novice teachers' identity formation and professional development. From our work with Guli as teacher educators, we see the importance of studying the needs of teachers, particularly those who are teaching in multilingual and multicultural settings and provide ongoing support for their professional development and their professional and cultural identity formation and help them develop cross-cultural and bilingual competence with intercultural and global awareness so that they are better prepared to work for the quality education in the ethnic minorities-inhabited regions of China.

NOTE

[1] We have used Mandarin and Putonghua interchangeably for refer to one and the same official Standardized Chinese, which is referred to as Putonghua in Mainland China, but known as Mandarin outside Mainland China.

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8. RELUCTANT TO SERVE THEIR HOMETOWNS AND COUNTRY

Xinjiang Class Graduates and Teaching in Xinjiang's 'Bilingual' Schools

In 2004, Raziyä, a young Uyghur woman from Korla (Ch. *Ku'erle*), graduated from Beijing's Luhe "Xinjiang Class" (Ch. *neidi Xinjiang gaozhong ban*), one of the ninety-one schools participating in China's national boarding school program for Xinjiang's youth. Since then, Raziyä had completed a degree in business at a prestigious Chinese university and married a young man from Pakistan. The young couple now lived in a small Muslim community located on the southeastern outskirts of Beijing. As I visited Raziyä in June 2012, she eagerly shared some exciting news: she had been invited by a major television station in the Xinjiang Uyghur Autonomous Region (XUAR) to be featured in a taping of a popular current events series, which was profiling "success stories" of the Xinjiang Class. For the taping of that particular episode, Raziyä was to appear alongside a representative of the National People's Congress, and the two were asked to promote the benefits of the Xinjiang Class program. I was curious about the producer's decision to select Raziyä to be on the program. When I asked her, she burst into laughter. Apparently, Raziyä had been recommended for the show by the principal of the Xinjiang Class in Beijing because she was one of the few members of her cohort "who is married, is not unemployed in Xinjiang, and is not living abroad."

However, from the perspective of the Chinese Communist Party (CCP), Raziyä's personal story was missing one important point to truly be counted as an example of "success"—she had not returned to Xinjiang. Certainly, the CCP has been explicit about its expectations for Xinjiang Class graduates: after completing university, they are to return to Xinjiang and find employment in basic-level units (Ch. *jiceng danwei*) of the region's workforce, ideally in rural primary and junior-secondary (Ch. *chuzhong*) schools. In an apparent attempt to align Raziyä's biography and pending plans to relocate abroad more closely with the political goals of the Xinjiang Class, the show's producer instructed Raziyä to craft a more appropriate response. When I later viewed the interview together with Raziyä, she pointed out this moment in the taping. As the reporter begins to probe Raziyä about her intentions to move to another country, the viewer can distinctly hear where the tape had been cut. The interview resumes after Raziyä had been properly coached:

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 163–175.

Raziyä: I should be able to do something [break in tape]. Eventually I really want to return to Xinjiang and open my own school. I am in Beijing because I still want to train myself further. I feel as if I still need to get better.
Reporter: So the time still isn't right [for you to return to Xinjiang].
Raziyä: Right, I am still unable to make a significant contribution [to Xinjiang]. If I have a chance to meet with foreign scholars who are interested in education, and if we can work together [it will benefit me and Xinjiang]. [And with this experience], I really hope to return to Xinjiang and run my own school.

Razyiä's biography has been coated with a thick veneer. The final edit of the interview omits many details about Raziyä's personal life—there is no mention of Raziyä's non-Chinese husband, their child, or the several month period Raziyä stayed in Pakistan with her husband's family—that may detract from the CCP's intended goals of the Xinjiang Class. Instead, the interview concludes with Raziyä's insincere pledge to return to Xinjiang and open her own school.

In fact, many Xinjiang Class graduates are reluctant to serve as teachers in Xinjiang. This chapter investigates the reasons why graduates of the Xinjiang Class are not faithfully "repaying" the Party and their country with a commitment to teach in rural Xinjiang. Interviews with over sixty Uyghur graduates of the Xinjiang Class reveal that few individuals are willing to accept that their education in China Proper (Ch. *neidi*) should culminate in the low-paying work of a teacher in Xinjiang, where conditions are poor and policies, especially those that promote *Putonghua* in schools, are unpopular.

METHODOLOGY

This chapter draws on nearly thirty months of field research conducted in Beijing and several oases of Xinjiang between February 2006 and August 2013. During this period, I spoke with sixty-one graduates of the Xinjiang Class. My informants included thirty-three women and twenty-eight men who graduated from eleven of the original twelve Xinjiang Classes. In addition, approximately 71 percent of my informants (forty-three out of sixty-one individuals) were raised in southern Xinjiang (e.g., Kashgar, Hotan, Aksu, Atush) before enrolling in the boarding school program. This figure compares closely with the Xinjiang Class's widely published enrollment quota, which requires 80 percent of incoming students to be from southern Xinjiang. Of particular importance to this study, nine of my informants (six female and three male) were enrolled in or graduated from a teacher training program at one of China's pedagogical universities (Ch. *shifan daxue* or *shifan xueyuan*).

My research includes only those individuals who have graduated from the Xinjiang Class program. Since I was unable to gain access to a Xinjiang Class boarding school, my research hinged on the participation of graduates, and my research was conducted

outside the confines of a school. Although my research would undoubtedly have been enriched by visitations to the boarding schools, I found conducting research outside of the schools to be rewarding. I was never followed by a school representative monitoring my research (see, for example, Hansen, 1999), and my informants could relax knowing they would not be punished by school officials if they expressed dissatisfaction with the boarding school, their education, or the CCP. The settings for my interactions with informants therefore varied. I often met with individuals at coffee shops, intramural soccer matches, during informal language exchanges, at Muslim restaurants and cafeterias, or at celebrations organized by Uyghur university students. I trust that the richness of these interactions can compensate for my inability to gain access to the boarding schools.

TRAINING BILINGUAL ETHNIC MINORITY TEACHERS IN CHINA

After establishing the People's Republic of China (PRC) in 1949, the CCP quickly recognized the critical shortage of ethnic minority teachers who were capable of carrying out its new, and specifically Chinese, education programs. In 1953, the total number of state-certified ethnic minority primary and junior-secondary teachers in all of China stood at a dismal 60,000 (Meng, 2010, p. 150). To begin to address this issue, China's Ministry of Education (Ch. *Jiaoyu bu*) released its "Opinions on Resolving the Problem of [the shortage of] Qualified Teachers at Minority Institutions of Education" (Ch. *guanyu jiejue gedi minzu xueyuan shizi wenti de yijian*) on March 21, 1957. Among its recommendations, the CCP proposed to recruit cohorts of ethnic minority university students and cadres and train them as teachers. The "key" (Ch. *guanjian*) to improving the quality of minority education, the document declares, is training qualified ethnic minority teachers (Meng, 2010, pp. 136–137).

The CCP revisited and eventually expanded this policy in the early 1980s—as the entire country attempted to rebuild its education system after the Cultural Revolution (1966–1976). On October 9, 1980, the Ministry of Education and the State Ethnic Affairs Commission (Ch. *Guojia Minwei*) drafted the "Opinions on Strengthening Minority Education Work" (Ch. *guanyu jiaqiang minzu jiaoyu gongzuo de yijian*). Similar to the 1957 recommendations, the policies unveiled in 1980 underscored the importance of training ethnic minority teachers. Setting it apart from the 1957 policy was the CCP's realization that the methods used for training Han teachers could not be "imposed uniformly" (Ch. *yidaoqie*) in ethnic minority areas. Instead, training methods needed to be "adjusted, reformed, reorganized, and improved" (Ch. *tiaozheng*, *gaige*, *zhengdun*, *tigao*) according to the needs of each ethnic minority group (SEAC, 2008). Of particular importance was the establishment of pedagogical institutions in each autonomous region and province containing substantial populations of ethnic minorities (Meng, 2010, p. 137). These pedagogical institutions became vital for training "qualified" (Ch. *hege*) ethnic minority teachers.

The CCP's investment in training ethnic minority teachers appears to have paid dividends, especially in Xinjiang. In 1984, the total number of ethnic minority teachers in the region alone reached 51,200 individuals, 37,800 of whom taught at either primary or junior-secondary schools. By 2009, the number of full-time ethnic minority teachers at primary and junior-secondary schools in Xinjiang rose 130 percent to 87,300 (Meng, 2010, pp. 150–151).

These numbers, although impressive, do not show the dramatic reforms state-schooling in Xinjiang has undergone since the 1980s, especially in terms of the required number of classroom hours reserved for teaching *Putonghua*, China's national language. In 1984, policymakers in Xinjiang extended formal instruction of *Putonghua*, which was originally introduced in the first year of junior-secondary school, to the third year of primary school (Dwyer, 2005, p. 36). To be sure, until 1992 the vast majority of schools in Xinjiang used ethnic minority languages to teach most subjects, and *Putonghua* was typically taught for four to five hours per week, essentially as a foreign language (Simayi, 2014, p. 144). Nevertheless, this decision signaled a new direction for "bilingual" education in Xinjiang. In 1992, "experimental bilingual classes" (Ch. *shiyan shuangyu ban*) were introduced wherein *Putonghua* is used for all mathematics and science-related courses. Although exact numbers are difficult to ascertain, it is clear that schools throughout Xinjiang are opening experimental bilingual classes at a rapid pace (Ma, 2009, pp. 210–212). In 2004, another mode of bilingual schooling was introduced in Ürümqi wherein *Putonghua* is the language of instruction for all classes; minority languages are essentially taught as foreign languages. Currently these types of schools are only located in Xinjiang's "developed" cities such as Ürümqi, Shihezi, and Karamay (i.e., cities where there are substantial Han populations); however, all primary schools are expected to adopt this model by the 2016 academic year (Simayi, 2014, p. 147).

As the complexion of "bilingual" education in Xinjiang changes, so does the criteria for assessing a "qualified" teacher. Above all, an ethnic minority teacher's ability to speak *Putonghua* appears to be valued over all other skills, and the CCP has gone to great lengths to ensure that schools in Xinjiang are staffed with bilingual teachers. In 2003, the Party Committee of the XUAR ratified the "Implementation Plan for Training Primary and Secondary Bilingual Ethnic Minority Teachers" (Ch. *guanyu zhongxiao xue shaoshu minzu shuangyu jiaoshi peixun gongcheng shishi fang'an*), which was to be carried out through 2011. The initiative required all ethnic minority science teachers under the age of forty to complete one to two years of additional Chinese language training. By the end of the eight-year program, approximately 45,000 ethnic minority teachers completed these supplementary language courses (Chen, 2010, p. 306). A similar program included in the "Plans for the Special Training of Bilingual Teachers" (Ch. *shuangyu jiaoshi tepei jihua*) was implemented in 2007 to specifically target schools in southern Xinjiang. This Chinese language training program recruited, trained, and then dispatched (Ch. *dingxiang jiuye*) ethnic minority teachers to schools in Kashgar, Hotan, Aksu, and Kizilsu (Chen, 2010, pp. 306–307).

Despite achieving some success in these programs, the CCP still struggles to fill Xinjiang's schools with bilingual teachers. Figures from 2010 suggest that only one quarter of ethnic minority teachers in Xinjiang are bilingual (Zhao, 2012, p. 151). The other three quarters face losing their jobs. The CCP has taken drastic measures to remove "unqualified" teachers from schools. Since the year 2010, more than one thousand kindergarten and primary school teachers in Xinjiang have reportedly been fired due to their inability to converse in China's national language (Radio Free Asia, 2011). A recently published report finds that Xinjiang still faces a shortage of more than 30,000 bilingual teachers (Global Times, 2015). Facing an uphill struggle, the CCP has turned to other sources—particularly the Xinjiang Class—to meet its demands for bilingual teachers.

THE XINJIANG CLASS

As part of its late 1990s effort to "strengthen minority education" (Ch. *jiaqiang shaoshuminzu jiaoyu*), the General Office of the State Council (*Guowuyuan bangongting*) formally established the "Xinjiang Class" in 1999. The program, which officially began the following year, is designed to attract ethnic minority students from Xinjiang, primarily young Uyghurs, to complete their senior-secondary schooling in *neidi.* During their four years at the boarding school, Xinjiang Class students assiduously study Chinese in addition to China's national curriculum. All courses are conducted in *Putonghua*, and students are expected to continue speaking in *Putonghua* outside the classroom. Meanwhile teachers and school administrators are tasked with instilling feelings of ethnic unity (Ch. *minzu tuanjie*) and Chinese patriotism into students (Chen, 2008; Grose, 2015a).

In order to maintain this intensive learning environment, teachers and administrators demand that Xinjiang Class students adhere to a rigid set of school policies. Students are only permitted to return home once per academic year, during summer recess, and must remain on campus for their month-long winter break. With the exception of being provided halal (Ch. *qingzhen*) meals, Xinjiang Class students, the vast majority of whom are Muslim, are forbidden to engage in public religious practice. Instead, students are expected to participate in festivals that are usually associated with Han culture (e.g., Spring Festival, Mid-Autumn Festival, Qing-Ming Festival).

The Xinjiang Class has undeniably been an effective measure to entice young Uyghurs to leave their homes and complete their formal schooling in *neidi* despite its heavy workloads and stringent policies. Since its inception, the program has been expanded several times. From 2000 to 2014, yearly enrollment jumped from 1,000 to 10,000 students. The number of schools hosting a Xinjiang Class has correspondingly increased from twelve to ninety-one, and these schools are spread across forty-five cities (Xinhua, 2013).

Proponents of the Xinjiang Class insist that a four-year intensive course of study that is insulated from outside influences can propel students into prestigious Chinese

universities (Tao & Yang, 2010). Some reports and figures support these claims. In their fourth year of study, students take the national college entrance examination, and figures indicate that 90 percent of Xinjiang Class students attend either a four-year university or technical school in *neidi* (Tianshan Net, 2009).

Xinjiang Class graduates are expected to return to Xinjiang after completing their university education. As I have pointed out elsewhere (Grose, 2015b), the formal policy, as it has been jointly drafted by the General Office of China's Ministry of Education, the State Ethnic Affairs Commission, the Ministry of Public Security (Ch. *Gong'anbu*), and the People's Government of the XUAR (Ch. *Xinjiang zizhiqu renmin zhengfu*) "encourages [Xinjiang Class graduates] to return to [their] hometowns" but "allows [them] to remain in China Proper" if they so wish (Ch. *guli huixiang; chongxu liu neidi*) (General Office of the MOE, 2008). Although the policy, at least in principle, permits Xinjiang Class graduates to remain in *neidi*, policy-makers clearly intend for these graduates to return to and secure employment opportunities in Xinjiang itself.

Indeed, the CCP has urged graduates of the program to return to the region and enter specific segments of the job market:

> Xinjiang Class students should be encouraged to return to Xinjiang for employment…in order to strengthen the Communist Party's work at the grassroots level. Xinjiang Class students should be guided to be employed as civil servants at basic level public institutions in order to fully utilize [these individuals'] professional skills and expertise in order to meet the needs of education, health care, family planning, agricultural technology, and other areas that have a high demand for professionals. (General Office of the MOE, 2008)

The above document confirms that Xinjiang Class graduates have "mastered both Uyghur and Chinese" (Ch. *minhan jiantong*), have been trained in *neidi* for eight years, and "generally are of good quality" (Ch. *yiban juyou jiaohao de suzhi*)—skills and traits that are attractive to CCP leaders and potential employers alike.

In an attempt to include Uyghurs in its development programs, the CCP has vigorously recruited Uyghur graduates of the Xinjiang Class to serve as teachers in rural Xinjiang. To this end, the CCP has designated top-ranked universities in China—Beijing Normal University being a notable example—as teacher training centers for Xinjiang Class graduates. If Xinjiang Class graduates agree to teach in Xinjiang, particularly in the impoverished rural areas surrounding Kashgar and Hotan, for a minimum of five years, the costs of tuition, room and board, and supplies are covered by government scholarships (Xinjiang News Online, 2012). In sum, if Xinjiang Class graduates become teachers, the CCP accomplishes two tasks: it fills the shortage of well-trained, bilingual teachers in Xinjiang and provides stable jobs to young Uyghurs.

RELUCTANT TO TEACH IN XINJIANG

Despite all of its efforts, the CCP has stumbled in its attempts to entice Xinjiang Class graduates to become teachers. As I alluded to above, only a small proportion of my informants opted for free college education and agreed to become teachers. More specifically, nine out of the sixty-one individuals (15 percent) who participated in this study were either currently enrolled in or had already completed a teacher training program.

A significant majority of my informants firmly believed that they were over-qualified for teaching. Raziyä, the young woman whom I introduced in the introduction to this chapter, feared "wasting" her education by becoming a teacher. I first met Raziyä one year before her expected graduation from university. At that time, she anxiously contemplated the possibility of returning to Xinjiang. Visibly stressed, she insisted that if she could not find a job in Beijing, she would have little choice but to become a school teacher in Xinjiang. Having studied at a prestigious university in Beijing, and having achieved near-native English competency, Raziyä adamantly believed her education would be wasted in Xinjiang. Raziyä complained that she attended university to become a successful business person, not to become a teacher.

Others hinted that their disapproval of laws and regulations in Xinjiang, especially "bilingual" language policies, keeps them away from teaching. As noted previously, *Putonghua* is gradually replacing Uyghur as the language of classroom instruction in Xinjiang's schools, and the amount of classroom time students spend studying *Putonghua* has steadily increased (Dwyer, 2005; Schluessel, 2007). Well informed about these policies and the consequences they may have on future generations of Uyghurs, my informants offered grim predictions about the not-so-distant future: Uyghur children will one day be monolingual *Chinese* speakers.

Some of my informants even claimed that language policies in Xinjiang were part of a systematic effort to weaken Uyghur ethno-linguistic identity. Rashid, a graduate of the Hangzhou Xinjiang Class, often expressed his opinions about these policies. On one occasion he complained:

> The Chinese government says that they are providing 'bilingual' education, but in reality it is a monolingual [Chinese] education. The government officials are very smart. They know that in order to assimilate other ethnic groups, they first need to eliminate their languages. They even have an idiom about this that goes 'if you desire to kill off another ethnic group, you must eliminate their language'. (Ch. *yu wang qi zu, bi mie qi yu* 欲亡其族，必灭其语)

Rashid's passionate response, although sincere, does sensationalize CCP language policies. In fact, Chinese law guarantees ethnic minorities the right to use and develop their native languages, and these provisions are, at least superficially, extended to the

realm of education (MOE, 1995). Furthermore, government-sponsored institutions of higher learning such as the Minzu University of China (Ch. *Zhongyang minzu daxue*) provide full-tuition scholarships to Uyghur students who pursue degrees in the department of Uyghur Language and Literature.

Nonetheless, my other informants echoed similar concerns. Murat, a native of Aksu, graduated from Hangzhou's Xinjiang Class in 2007 and then attended a university in Beijing. During the final year of his university program, Murat was determined to either find work in Beijing or emigrate to Turkey; he refused to return to Xinjiang. After Murat navigated a frustrating and expensive bureaucratic process, he obtained a visa to study in Turkey. I asked Murat about his unwillingness to return to Xinjiang, especially since he would have been guaranteed a stable job teaching. Murat explained:

> Money isn't the issue. My parents, sister, and closest friends all live in Xinjiang, so of course I really want to return, but as you know things aren't normal there. There are restrictions on the clothes [Uyghurs] wear and on how we grow our beards. And, in our schools, we can't even use our mother language. God willing, I will return one day. For now, though, I will study hard, let God will for me to help our people. (Uy. *obdan oquwélip, hälqimizgä mänpä'ät yätküzgidäk bolghanda, Allah nisip qilsun*)

Invariably, the Xinjiang Class graduates I have spoken with have complained bitterly about the CCP's current course in Xinjiang. These criticisms are certainly not unique to Xinjiang Class graduates, but in fact reflect widespread discontent among Uyghurs toward the CCP (Bovingdon, 2010; Dautcher, 2000; Kaltman, 2007; Mackerras, 2001; Smith, 2000, Smith, 2002; Smith Finley, 2013).

Despite their objections to policies in Xinjiang, some Xinjiang Class graduates ultimately agree to become teachers. Generally, these individuals share identifiable commonalities. First, they spent their early childhoods in southern Xinjiang, especially Kashgar, Hotan, Aksu, or Atush. Second, their parents were either farmers or common laborers. Considering these two factors, these individuals would likely have fallen into the Xinjiang Class's lowest income bracket and therefore would not have been responsible to pay tuition or any other school-related fees while enrolled in the boarding school. In other words, the poorest individuals among my informants chose to become teachers.

The Xinjiang Class unquestionably provides a path to upward socio-economic mobility for young Uyghurs who face economic hardship. Alimjan, a 2010 graduate of Beijing's Xinjiang class, grew up in a poor farming community in Atush. His father, a common laborer, and mother, a homemaker, had little extra money to spend on Alimjan's education. Therefore participating in the Xinjiang Class was a particularly appealing option for Alimjan and his parents. Knowing that if he agreed to become a teacher he could earn a college degree without the burden of paying tuition, Alimjan enrolled in Beijing Normal University's teacher training program. Alimjan and I spoke two days before he was to return to Xinjiang to

start teaching. During our visit, Alimjan looked back on his decision to become a teacher:

> To tell you the truth, I'm excited about teaching. My parents don't have a lot of money, but the Xinjiang Class allowed me to go to a good school for free. Then, I really wanted to go to a university in Beijing, so I decided to become a teacher. Initially [some officials] told me I only had to serve for five years as a teacher, but now I hear it is ten. That is a long time, but I did attend university for free, and the government will help me find a job. It is really hard to find a job in Xinjiang, you know, but I'm guaranteed one. Since my family's financial situation isn't good, having a job is really important to me. I even hear that I can make 10,000 RMB a year as a teacher. On top of that, I will return to Beijing Normal for three consecutive summers and eventually earn my Master's degree in education. It won't be so bad to teach in Xinjiang. Plus my family and girlfriend are there.

Alimjan's remarks demonstrate how financial pressures may compel some Xinjiang Class students to become teachers. Facing competition for work in Xinjiang's job market, where employers in the private sector unequivocally favor hiring Han employees (Benson, 2004, p. 214; Dautcher, 2009, pp. 29–39; Kaltman, 2007, pp. 29–39, pp. 100–107; Liu, 2010), some young Uyghurs choose job stability over everything else.

Yet, job security alone does not always convince these young teachers to remain in the profession. Kamirya graduated from a Xinjiang Class in Hangzhou and then studied in the eastern city of Hefei to become a teacher. After graduating in 2008, Kamirya was "assigned a position" (Ch. *fenpai*) in Kashgar, her hometown. After serving as a teacher for three years, she and her husband decided to leave Kasghar for Ürümqi, despite having to repay some of her government scholarships. She explained:

> I realized that if I stayed in Kashgar I would never have a chance to develop my career. I mean, what would my future be like if I stayed in a village with students who may or may not go to college and with adults who are not educated? But, I've really struggled (Uy. *japa tarttim*) to find another job since moving to Ürümqi. I've taken the civil service examination ten times and still haven't found suitable work, so I'm teaching Chinese part-time at a technical school until I find something better. [Sighing] I guess in order to achieve what you want in life, you have to struggle first. (Uy. *jandin kechmigiche, janangha yetkili bolmas*)

Perhaps it should come as no surprise that young, college-educated and bilingual individuals who have spent at least eight years of their lives in sprawling Chinese cities would not remain content working in rural Xinjiang. The undesirable combination of low pay, long hours, poor working conditions, few opportunities for advancement, and unpopular policies have dissuaded many graduates of the

Xinjiang Class from becoming teachers and have driven others to seek alternate employment opportunities.

CONCLUSIONS AND RECOMMENDATIONS

This chapter has shown how the CCP has turned to Xinjiang Class graduates to alleviate Xinjiang's shortage of bilingual teachers. By essentially offering Xinjiang Class students eight years of free or very affordable senior-secondary and university education and guaranteeing them job security, the CCP hopes that a sizeable number of bilingual young Uyghur elite will serve their country by teaching in rural Xinjiang. This strategy—to garner support from Uyghurs by promising improvements to their material lives—is consistent with the CCP's sweeping socio-economic reforms in Xinjiang (Millward, 2007, pp. 295–298; Rudelson & Jankowiak, 2004, p. 310; Xinhua, 2011).

Yet, a substantial number of Xinjiang Class graduates are choosing different paths. Evidence from my research suggests that few Xinjiang Class graduates accept the CCP's offer. These individuals are hesitant to use their education to teach in poorly-funded schools in Xinjiang, which they believe are vehicles for promoting specifically "Chinese" education programs.

The reluctance among Xinjiang Class graduates to serve as teachers in Xinjiang reflects the profound distrust of the government held by many Uyghurs. Improving the material wealth of Uyghurs alone has, to this point, proved ineffective in easing ethnic tensions in Xinjiang. If the CCP hopes to achieve long-term social stability in the region, it should commit itself to welcoming Uyghurs to contribute meaningfully to the development of education, as well as broader political programs, in Xinjiang.

An appropriate first step may be to adopt a genuine model of bilingual education wherein the Uyghur language is valued as much as Chinese at every level of schooling. The gradual but unmistakable removal of the Uyghur language from Xinjiang's curriculum has exacerbated Uyghur resentment towards the CCP. From my experiences, young Uyghurs do not deny the usefulness of learning Chinese. In fact, many Xinjiang Class graduates regard Chinese as an important *international* language. However, they also crave learning about their own language. If the Uyghur language is once again given a more prominent role in Xinjiang's education system, bilingual Uyghur teachers may develop a new sense of pride knowing their education and skills are serving their hometowns as well as their country.

NOTES

[1] The author would like to thank Colin Legerton who provided helpful comments and suggestions on earlier drafts of this chapter.

[2] 热孜亚：我应该能做一点儿什么[break in tape]以后我很想回到新疆自己开自己的学校。我在北京是因为我想更多的去深造自己。我觉得我还不够好。
记者：还不是时候…

热孜亚：对，我不够好去做一个更大的贡献。 如果我觉得我要能够有机会跟国外的教育方面的这些学者有一个交流又跟他们有一个合作的话，我真希望就是以后在新疆做一个自己的一个学校。

[3] Guiding Raziyä to say that she wishes to start her own school in Xinjiang is puzzling given the CCP's efforts to block Uyghurs from opening private language schools in Xinjiang; see Jacobs, 2014.

[4] I made several attempts to gain access to Beijing's Xinjiang Classes. Oftentimes senior faculty members at my host universities assisted me to solicit both formal and informal visits to these schools. On one particular occasion, my faculty sponsor arranged a date with the principal of a Xinjiang Class, who was also his personal friend, for us both to visit the school. As the date of the planned visitation drew near, my faculty sponsor shared a bit of information to his friend that he had not previous disclosed—I was an American researcher. My invitation to the boarding school was immediately revoked.

[5] To be sure, the Xinjiang Class enrolls students from diverse ethnic backgrounds (e.g., Uyghur, Han, Hui, Kazakh); however, Uyghur students consistently make up 85–95% of a Xinjiang Class's student body each year (Chen, 2008, p. 83). Some officials have indicated that in the near future at least 90% of all incoming students will be Uyghur (Xinhua, 2011).

[6] Of course, students find ways to subvert the Xinjiang Class's language policy, and many of my informants reported that they spoke in Uyghur when they knew that their activities were not being monitored. Nonetheless, according to a set of regulations representative of most Xinjiang Class schools, (1) students must speak only Putonghua during class and their daily activities; (2) students must communicate only in Putonghua during organized outings; and (3) students are encouraged to use Putonghua for all communication, regardless of location (Ch. zai shenghuo ji qita quyu shiyong putonghua jiaoliu) (Shanghai Fengxian Middle School, 2006).

[7] The term suzhi refers to the "quality" of an individual. Individuals possessing "superior quality" (Ch. suzhi gao) are generally considered to be well-educated, economically stable, value cleanliness, etc. The term has entered into Chinese state discourse on development, and its usage distinguishes practices and modes of thinking advocated by the state from those considered "backward" (Ch. luohou). For moreon this topic, see Jacka, 2009.

[8] According to the 2007 recruitment plan for universities in neidi that enroll Xinjiang Class graduates, Beijing Normal University reserved seventeen spots for Xinjiang Class graduates, one of the highest numbers among universities in Beijing (Xinjiang Department of Education, 2007).

[9] For example, in 2002, Xinjiang University, the largest and most prestigious university in Xinjiang, abandoned its long-standing practice of offering classes taught in Uyghur and began to offer only classes taught in Chinese (Dwyer, 2005, pp. 39–40).

[10] Upon acceptance into the program, Xinjiang Class students are placed into one of three tuition brackets. These brackets are determined by annual household income. Typically, students from households in which at least one parent receives a government salary pay a 900 RMB (approximately $145) flat tuition; students pay 450 RMB (approximately $73) if their parents are farmers or if one parent is unemployed; and families who are "extremely impoverished" (Ch. jiduan pinkun) are not required to pay tuition (Shanghai Songjiang No.1 High School, 2010). Most students from southern Xinjiang whose families rely primarily on agricultural production for their often modest annual incomes fall into the "extremely impoverished" category.

[11] The idiom jandin kechmigiche, janangha yetkili bolmas can also be rendered as "in order to achieve life's goals, you must be willing to give up your life."

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9. DEVELOPING TRILINGUAL EDUCATION IN WESTERN CHINA

INTRODUCTION

Among the educational pressures associated with the forces of globalization and modernization experienced by China, the linguistic challenges for schools in ethnic minority areas are particularly daunting. Through a confluence of different policy streams (Adamson, Feng, Liu, & Li, 2013) that focused on sustaining ethnic minority languages, promoting Putonghua and expanding the provision of English respectively, schools in these regions are often expected to adopt a trilingual approach to education, encompassing the local ethnic language, Chinese (as the national language) and a foreign language, usually English, that is associated with internationalization. The problem affects a large number of students—there are 55 officially-recognized ethnic minority groups in China, numbering around 114 million people (some 8.5% of the total population) (*People's Daily*, 2011)—and is exacerbated by the fact that the minority groups are often, but not exclusively, located in rural and underdeveloped areas of the country. Western China is heavily populated by different ethnic minority groups.

The approaches adopted for incorporating trilingualism into school systems vary widely, as regions enjoy considerable autonomy in curriculum implementation. Research (see, for example, Adamson & Feng, 2014; Feng & Adamson, 2015) suggests that four distinct models are discernable: the Accretive, Balanced, Transitional and Depreciative. The first two are supportive of the ethnic minority language, either by making it the major language in the school (the Accretive model) or by offering it as a parallel stream to one in Chinese (the Balanced model). The other two models, which are more commonly found, are potentially deleterious to the ethnic minority language, by limiting the curriculum provision to the early stages of elementary school before making Chinese the dominant language (the Transitional model) or by omitting it entirely from the curriculum, despite claims to the contrary (the Depreciative model). The respective roles of the ethnic language and Chinese in schools are contentious issues, tied up with questions of identity, social equity, political and economic power, demographics and deployment of available resources. Across the four models, Chinese—the language of national unity and of socio-economic mobility—is the strongest language, even in ethnic minority regions that have a powerful sense of cultural identity (Adamson & Feng, 2015). However, the value of the students' first language to enable more effective learning across the

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curriculum is often overlooked in the debates. Meanwhile English—prestigious as an international language and important for access to higher education and some employment opportunities—is weakened by the lack of trained teachers and appropriate resources. In many regions, there is a severe shortage of ethnic minority teachers able to teach English, meaning that many students have to learn their third language through the medium of their second language (Chinese), as the schools have to recruit English teachers from the majority Han group.

These two issues related to ethnic minority education—the potential of the students' first language in enhanced learning and the lack of minority teachers of English—form the focus of two initiatives that are presented in this chapter. The first case is a project from the Zhuang-dominated Zhetu Township in Yunnan Province, in which secondary students were taught through their first language. The second case describes an innovative teacher development program designed to enhance the trilingual competence of teachers from Tibetan-speaking areas of Qinghai Province. Both projects go against the grain of prevailing practices and pioneer alternative perspectives of education in trilingual contexts.

CASE 1: YUNNAN

Background

The students involved in this study live in Zhetu Township of Guangnan County, which has a population of 36,711 in 2005, in 116 villages, of which 106 villages are Zhuang.[1] More than 90% of the district population is Zhuang, and the vast majority of the Zhetu Zhuang speak the Yan-Guang Vernacular of the Southern Dialect of the Zhuang language, which is called "Nongz" ([nʷɔŋ³³] or "Daez" [tɛi³³]) by its speakers (Wang & Johnson, 2008). The research focused on seventh grade students as this is the first year in which most rural Zhuang students begin study of English. All high school students in China must study English and must take tests in written English in order to continue on with their schooling. At the time of this study, the textbooks that were used to teach English and exams used to test progress in the school where this study took place were written in Chinese. Students whose mother tongue is not Chinese, and who enter elementary school not speaking Chinese, in addition to learning the written Chinese characters, must also learn oral Chinese, including grammar, pronunciation, vocabulary, idioms, etc. Though most minority students by the time they reach secondary school have a basic mastery of written and oral Chinese (basic interpersonal communicative skills, or BICS as outlined by Cummins (1984)), some in minority language areas still struggle with academic content taught using the Chinese language due to their lack of developed cognitive/academic language proficiency, or CALP (Cummins, 1984). When these students study English in junior secondary school, they do so through the medium of Chinese, a language they have not yet mastered, which naturally puts them at a disadvantage when compared with their Han majority peers.

Zhou (2000) has proposed a typology of minority languages based upon the existence of a script and its use in the education of students in minority areas. Type 1 communities had a traditional script prior to the formation of the People's Republic of China in 1949 and have consistently used that language and script in education, even to this present day. Type 2 communities had a functional writing system in place before 1949 and have occasionally used their language and script in education since. The Zhuang area in question in this study falls into the third category of minority language communities in China, namely, one that did not have a pre-existing script or bilingual education prior to 1949, and have had little or no bilingual education since. In such areas instruction in the minority language is largely bypassed in favor of a more economically feasible, yet arguably less effective form of 'Chinese language only' instruction for most school subjects, including English (Finifrock & Schilken, 2015).

Zhou (2001) states that "with no bilingual education and without adequate Chinese, some groups of Type 3 communities have not been able to make good progress beyond primary education." The Zhuang community in this study would certainly fall into that category.

Given this situation, as well as other factors, it is not surprising that English test scores are often quite low for rural minority secondary school students.[2] As a national educational goal is to narrow the gap in educational achievement between ethnic minority students and those of the Han majority,[3] Chinese educators are seeking ways to improve the English test scores of minority students in order to not hold back otherwise qualified students from succeeding in the school system and society.

Theory

The project was designed to test the hypothesis that minority language students will be more successful in learning English when they can employ their minority language as a learning tool as suggested by Xiao (2003).[4] Evidence exists in Type 1 communities, such as the Korean speaking areas of Jilin province (Zhang, Li, & Wen, 2015), and Type 3 communities, such as the Kam speaking areas of Guizhou (Finifrock, 2010; Finifrock & Schilken, 2015) that where the minority language has been used as the first language of instruction and as a medium of instruction students seem to be able to learn second and third languages more efficiently. In those examples, however, there exists a relatively strong form of bilingual education that was implemented over many years and in a broader scale than was possible in this project. Due to the lack of minority language speaking teachers and the required use of Chinese language texts and tests in this study it was not feasible to use the minority language as the primary medium of classroom instruction. Thus it was hypothesized that perhaps even a small amount of minority language supplementation in study hall time outside of formal class hours may improve minority students' vocabulary retention and testing performance. Perhaps this supplemental support using L1 in learning English (L3) would allow minority speakers to perform better on tests that

nonetheless require a high level of Chinese (L2), a problem that has been raised by Sunuodula and Feng (2011).

Research Design

The listening portions of the standard seventh grade national English textbook were translated into the Nong Zhuang dialect (known as the Yan-Guang Vernacular of the Southern Dialect of Zhuang by Chinese linguists) as spoken in Zhetu District of Guangnan County.[5] The Nong Zhuang translation was checked for accuracy and naturalness by Lu Baocheng of the Yunnan Language commission, himself a mother-tongue speaker of Nong Zhuang from Guangnan County, as well as a professional linguist and professor of Zhuang. The scripts were audio recorded and edited to produce a set of tutorial recordings aligned with the national seventh grade textbook. Mandarin Chinese and English medium tutorial recordings were also produced, for use in the control groups, with identical content. The tutorial recordings consisted primarily of individual sentences, dialogues, short monologues and vocabulary lists. Each item was read at normal speed in English, followed by either a Zhuang or Chinese translation or gloss, and then two more slow repetitions of the English pronunciation with pauses in between so the students could repeat the utterance while listening.

With the cooperation of the Guangnan County Education Department as well as administration of the Zhetu District Central Middle School, researchers obtained permission for the recordings to be used to guide the students' English language class study hall sessions one to three times per week, according to the school's scheduling. The content of the recordings corresponded to the course material scheduled for that given week such that the audio Zhuang-English or Chinese-English recordings supported the classroom instruction. The students were encouraged to visually review their textbooks as they listened to the recordings and to repeat the English pronunciations after the recordings.[6] Class instruction itself was not altered by this program.

Consent was provided by the county education department, school administrators, the English teachers of the individual classes and the students themselves. At the start of the two testing phases, English teachers explained the project to the students orally and the students were also provided a brief introduction to the project in Chinese. Students were given the opportunity to give permission for their test scores to be used for analysis with assurance of no repercussions if students chose not to authorize the use of their results. Students were told that their personal information would be kept confidential and results would only be displayed by use of an identification number assigned by the researchers.

Students who did not speak the Zhuang language at home were assigned to one of the two control groups that listened to Mandarin Chinese recordings and their results were not considered in the analysis. The Zhuang-speaking students remained with

their cohort. Cohort assignment was done by the school at the start of the seventh grade and was based upon sixth grade performance in such a way that each cohort received equal proportions of high performing, mid-performing and low-performing students. Thus we can assume that the Zhuang-speaking student populations in the various cohorts were more or less equal with regards to language abilities and academic abilities. Each English teacher taught two cohorts so one of each teacher's cohort's was chosen as a control group (Chinese and English recordings) and the other to be a test group (Zhuang and English recordings). Other than that, the decision of which cohorts to select as control groups and which to select for test groups was random. Therefore for our purposes, we can assume that the Zhuang-speaking students were randomly distributed for the variables of Chinese ability, academic ability, gender, and balanced between the test and control group for the variable of teacher effectiveness. The various test groups and control groups all listened to the recordings at the same time periods for the same duration.

During the first phase, the participating students were assessed as to English vocabulary retention with an assessment designed by the researchers that focused exclusively on the English vocabulary taught in the textbook and recordings during the first seventh grade semester. During the second phase, three assessments were used, the same assessment used in the first phase, a follow-up vocabulary assessment focusing on the vocabulary taught in the second semester textbook and the students' final seventh grade English course scores, largely based upon their performance on their final exam.

Results

The first testing phase had 150 Zhuang-speaking students' test results for comparison, of which 63 had participated in a control group and had listened to the Mandarin Chinese and English recordings, and 87 had participated in a test group and had listened to the Zhuang and English recordings.[7] The average score for the test groups was 13% higher than the control groups' average score. In the control groups, more than half the students (55%) did not correctly identify half of the tested English vocabulary items, whereas in the test groups almost two-thirds of the students (64%) were able to identify at least half the words. Only one in eight students in the control groups identified 80% of the English vocabulary items, whereas one in three students in the test groups reached this level. The difference between the control and test groups is statistically significant at 85% probability. Because this is a relatively low level of statistical significance (due to the low sample size and high standard deviation) it was decided to conduct a second testing phase with a larger sample over a longer period of time—two semesters.

The number of eligible subjects who completed the second phase was 308 students, evenly distributed between the control group and test group, with 154 students in each. On the fall semester vocabulary assessment, students in the test

groups scored 12.70% higher than those in the control groups, on average. This difference is statistically valid at a 99% confidence threshold (using the double-tailed t-test). On the spring semester vocabulary assessment, test group students tested 12.10% higher than those in the control groups, on average, a difference statistically significant at 98% confidence level. In terms of the student's overall seventh grade English marks as assigned by their teachers, the students in the test groups received marks 12.12% higher than the control groups.[8] This difference is statistically significant at a 99% confidence level. Chinese high school class marks (grades) are considered "moderate" at 31–59 points, "qualified" at 60 points and above and "high" at 80 points and above, whereas 30 points or below is considered "low" or failing. Whereas 40% of the control group students failed to achieve the minimum 30 point scores in English, only 24% of the test group students were in this category. While 14% of the test group received marks of 60 points or higher, only 9% of the control group reached this level. So the effect of the experimental method on the student population appears to be that it allowed some otherwise failing students to move from the failing level up into the moderate or qualified level, without having much impact on the high achievers.[9]

While all three indicators used in the second phase, as well as in the first phase assessment, show similar improvement levels between the two groups, when analyzed by gender, a more striking difference appears among male students in the two groups than among female students. Among the subjects, males had an average course mark of 36.45 while females had an average mark of 40.04, a difference of almost 10%. This may reflect that fact that poorly qualified female students are less likely to attempt high school than poorly prepared male students in rural areas.[10] However, on our own English vocabulary assessments, the gender difference was more pronounced, with female student scores 12.00% higher than those of male students on the fall assessment and 17.90% higher on the spring assessment.[11] When the average mark of males in the test group is compared with that of males in the control group, the difference is 12.97%, whereas the difference between the marks of female students in the two groups is only 11.99%, showing that the variable has slightly more impact on male students than females.[12] This appears to indicate that the variable has a greater impact on male students' English vocabulary retention than it does on that of female students, possibly in part because the female students already do better in English than the male students and we have observed that the variable affects low-performing students more than high-performing students. Presumably this is because the purely Mandarin Chinese oral instruction, written textbooks and study hall tutoring present more of a learning barrier to the low performing students, whose low performance may be, at least in part, be due to inadequate bilingualism. Exposure to the tutorial recordings using the students' first language, even at an amount of only one hour or less a week, appears to be enough to positively affect these students' scores, reducing the percentage of failing students and increasing the percentage of students meeting the criteria for moderate or qualifying marks.

Conclusion

This study has attempted to evaluate the effect of the use of first language materials to supplement the standard high school teaching of English to linguistic minority students. Due to the requirements of the high school curriculum, schedule and teaching procedures, students were normally only exposed to first language instructional materials for about one hour per week during the semester, during an early morning study session before the commencement of their first period class. Even with such minimal exposure, data from four different assessments, including one conducted by local English teachers based upon the national seventh grade English exam, demonstrated a 12% improvement in student English scores. The method employed for this research has a low financial cost and requires very little disruption of the existing educational methods, yet produces significant benefit for the students. Therefore it is our recommendation that methods like this be tested more widely in other linguistic minority schools. With greater support by local English teachers, and more regular and frequent usage, the impact could be even greater.

CASE 2: QINGHAI

Background

Qinghai Province is located in north-west China, high on the Qinghai-Tibet Plateau. Geographically, it is famous for the extensive salt-water Qinghai Lake and for being the source of the Yangtze, Yellow and Lancang rivers. It is also the province with the highest population of ethnic minorities in terms of percentage. Out of a total population of around 5.6 million, just under half belong to ethnic minority groups such as Tibetan, Hui, Tu, Sala and Mongolian. Tibetans—the main focus of this case study—make up the largest proportion, numbering 1.1 million. Some 98% of the administrative districts in Qinghai Province are designated as ethnic minority autonomous regions, including five Tibetan autonomous prefectures, namely Haibei, Hainan, Huangnan, Yushu and Guoluo, and one Mongolian and Tibetan Autonomous Prefecture, Haixi (Ma & Renzeng, 2015).

Tibetans have their own oral and written language, with records of the latter dating back to the 7th century. As a pastoral, nomadic people, literacy levels were traditionally low, but policies, especially moves towards nine years' provision of education and the development of mass media in Tibetan, have improved the situation. There are currently 868 schools in Qinghai Province providing Tibetan language education to more than 540,000 students (Qinghai Provincial Education Bureau, 2011), who now can be taught in Tibetan from elementary school through university. The provincial government laid stress on the development of the Tibetan language and mandated its use in schools. Students could sit a paper on the Tibetan language for the high-stakes national university entrance examination, and could

answer the papers for other subjects in Tibetan (Mackerras, 1994). Textbooks were published in Tibetan for subjects such as Mathematics, English, Physics and Chemistry. However, with demographic and economic changes since the late 1970s, the use of Tibetan as the medium of instruction has been complemented by another model which uses Chinese as the medium of instruction, with Tibetan being taught as a subject in its own right. These two models could be found operating either in separate schools or within the same school according to local needs. For instance, schools in Huangnan, Hainan, and Guoluo autonomous prefectures tend to use the Tibetan model; Yushu and Haibei prefectures have adopted the Chinese model. A few schools in Hainan Autonomous Prefecture offer two streams, one using Tibetan as the medium of instruction, the other using Chinese (Ma & Renzeng, 2015). Overall, the Chinese model is becoming more popular as the Han population continues to grow, and the value of Chinese for the economic and social opportunities it affords becomes increasingly recognized by the Tibetans.

Chinese (comprising Putonghua, based on the Beijing dialect, as the spoken form and Standard Written Chinese) has been strongly promoted in schools across the country since the large-scale curriculum reforms of 1985. Chinese represents "the language of power and access to economic well-being" (Tsung & Cruickshank, 2009, p. 550) and is therefore desirable for ethnic minority groups, who often live in the poorer regions of the country and who wish to improve their living standards through engagement with mainstream society. On the other hand, the Chinese language could also be perceived as a threat to Tibetan language and culture unless the two languages can be accommodated harmoniously.

The provision of English in the curriculum in Tibetan minority schools accelerated from 2002. A number of elementary schools in Huangnan Prefecture introduced English from Grade Three, with two classroom hours a week. However, problems of teacher recruitment has meant that English is customarily scheduled from Grade Five onwards in most ethnic minority schools, with an allocation of four classroom hours a week. There is no formal requirement for English scores to be incorporated into the National Entrance Examination for colleges or universities, though in practice English examination results tend to be taken into account if the student attains a score of over 60 points. Hence, English is part of the formal education system in Tibetan minority schools, but it is not the high-stakes examination subject that it is elsewhere in China.

The Rationale for the Program

In recent years, a series of innovations in Qinghai has focused on raising the quality of education provision. Tibetan minority schools have undergone large-scale renovations of their teaching buildings and facilities. However, this development of the infrastructure has not been matched by enhanced teacher quality. At the heart of the problem is the severe shortage of teachers who are competent in both Tibetan and Chinese (not to mention English) and schools struggle to provide a bilingual

environment for students. To address this deficit, measures have been taken by the provincial government to provide professional development for teachers and school principals. Local universities and prestigious universities in south China were mobilized to assist. One of the initiatives—described in this case study—was the design of a new program to enhance teachers' capacity to deliver bilingual and trilingual teaching in the schools. This program supports the trend of schools using Chinese as the medium of instruction in local schools, while developing students' competence in Tibetan by teaching the language as a separate subject in the curriculum.

The Plan and Implementation

In 2007, the provincial government promulgated a plan for the development of trilingual teachers in elementary and secondary Tibetan schools. According to the plan, Qinghai Normal University and Qinghai University for Nationalities were given the responsibility of improving the proficiency of Tibetan, Chinese and English teachers. Principals and other senior staff in Tibetan schools were to be the first trainees in the training program, followed by subject specialists in the three languages. In this chapter, a 20-day professional development program for junior high school teachers of English run by the Qinghai University for Nationalities School of Foreign Languages is presented and discussed.

When tasked by the provincial government to run this program, the senior leaders of the university attached great importance to its success and took a hands-on approach to the design of the course and the selection of staff. Training courses and team-building activities were organized in order for the selected lecturers to become familiar with the program. The curriculum underwent four iterations before it was approved and implemented. Consultations were conducted with Tibetan schools and other key stakeholders. It was agreed that a purely theoretical program would lack relevance, so the approach adopted in the curriculum was to view the teaching and learning of English from the perspective of junior high school English teachers and students. Theoretical knowledge would be blended with contextualized practical skills and enlarging the participants' linguistic competence. Contents included topics such as analyzing teaching materials; pedagogical strategies to maximize student learning; effective classroom interaction; lesson planning and evaluation; assessment; and student motivation. The university hired two foreign teachers with considerable teaching experience, a veteran IELTS trainer, plus two young teachers who had studied abroad.

The initial lectures introduced the national policy on English education, with particular attention to the development of education in remote ethnic minority areas. Then, after consulting the participants, it was found that their greatest difficulties lay in figuring out how to teach English in an effective way. In response, the lecturers fine-tuned their courses. The participants were instructed to observe how the instructors' designed their lesson plans and how they created resources for assessment. One of

the foreign teachers taught the students English and then explored with them the pedagogy she had used and possible alternatives. A blackboard and chalk were used in classes in order to create a realistic classroom setting, as most Tibetan areas do not possess hi-tech teaching multimedia or networking facilities. The participants realized that even if they lack hi-tech facilities, they could still give a good lesson. The key is planning the learning and delivering classes in a lively manner. With these models in hand, the participants made their own plans and resources, and shared them with classmates and lecturers for critical review and constructive feedback. In this way, the participants came to understand that there is no one-size-fits-all approach.

Subsequently, when the teacher and participants discussed English teaching methods, they identified grammar as the trickiest part. It was generally agreed that high school students do not want to listen to teachers talk about teaching grammar rules, as the teacher-student interaction would be negatively affected. The lecturers helped the participants to recognize the importance of effective teaching methods and encouraged them to share their own grammar coursework materials. There was an emphasis on working together to solve pedagogical challenges. All the products from lectures and participants were filmed and burned onto CDs and shared for future reference and use.

As the spoken English of many pastoral teachers tends to be influenced by their native language in terms of accent, the foreign teachers provided pronunciation lessons. Moreover, to improve the participants' spoken English, optional oral courses were offered, although only fifty participants enrolled. A grammar course was also set up for teachers of junior high school English. Participants learnt how to assess the grammatical difficulties of their students. In addition, the senior IELTS language teacher trainers taught English writing courses and, although only six hours were allocated to these classes, they were found to be of great help in developing the writing ability of the candidates.

The program organizers faced a problem when it came to assessment of the participants. It was soon obvious that, despite meticulous planning, the course needed to be implemented flexibly. However, the provincial government expected rigorous testing of the participants. A balance was struck, whereby the assessment components were designed in a flexible manner to reflect participants' learning and the program intended outcomes. Participants were assessed through coursework, lesson plans, materials design and closed-book examinations.

At the end of the program, the participants were invited to evaluate their experiences. Several felt that there was still a disconnection between classes provided by the lecturers and the reality of classrooms in the rural areas. This points to a weakness in the program design, in that the participants were assembled in the capital city, making situated learning more difficult to achieve. However, organizing more localized professional development presents logistical and financial challenges that cannot be overcome in the short term. For the time being, efforts will be devoted to fine-tune the program content and to create a critical mass of trained teachers to

spearhead the development of better quality bilingual education in the rural Tibetan areas of Qinghai.

CONCLUSION

The two initiatives presented in the chapter represent different emphases in the promotion of a common cause, namely trilingualism, in western regions of China. The Yunnan project demonstrates the value of the students' first language (in this case Zhuang), as opposed to the use of their second language (Mandarin Chinese), in learning their third language (English). The Qinghai project shows how professional development can assist teachers in ethnic minority regions to strengthen the learning of English, even in areas where the language has little traction in daily life. Taken together, the findings offer hope that indigenous solutions can resolve some of the problems in developing trilingualism that have appeared in other minority areas—a shortage of suitable teachers. Reports from elsewhere (see, for example, Feng & Adamson, 2015) show that schools in ethnic minority regions have tended to recruit Han Chinese teachers of English because of the dearth of trained teachers who can teach English through the minority language. Given the power of the students' first language for effective learning, the development of a cadre of ethnic minority teachers can lead to the strengthening of English, with all its concomitant advantages and opportunities for further education, employment and other life chances. These projects promise progress towards greater social equity and empowerment for the ethnic minority groups.

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Views expressed are those of the authors.

NOTES

1 Data provided in an interview with Zhetu District government officials in 2006.

2 For example, those Zhuang-speaking students from the Zhetu District Middle School that tested well enough to continue on to high school in 2009 had an average score of over 95 for the math entry exam, but less than 50 for the English exam.

3 Reiterated in a recent government white paper, entitled "Human Rights in China," published 8 October, 2008. Section VII. "Guarantee of the Rights of the Minority Nationality." Available online through the People's Daily at: http://english.people.com.cn/90840/92283/92284/6278548.html According to 2004 statistics from the Ministry of Education of the People's Republic of China, ethnic minority students accounted for 7.78% of the total middle and high school students and only 5.7% of tertiary level students, although minority nationalities account for 9.2% of the national population. (Source: http://www.moe.edu.cn/edoas/website18/54/info12054.htm)

[4] Although a true immersion learning environment may be the ideal for these students to master English as a second language, currently in the rural high schools in which fluent English speakers are few and the number of other core subjects students study are many, such is not possible. Therefore, as a second best solution, use of the mother tongue can help students more rapidly and thoroughly retain the English vocabulary necessary to test well on the standard English examinations.

[5] The project translated and recorded portions of the 2010 seventh grade fall semester English textbook and the 2011 fall and spring semester textbooks. These textbooks are edited by the Ren'ai Educational Institute in Beijing.（《英语七年级上/下册》，北京市仁爱教育研究所，编著，北京教育出版社，2010、2011年。）

[6] Compliance was supervised by the English teachers, as well as one of the researchers, who was on site about 40% of the weeks during the testing phase. As one can expect in a situation in which one has hundreds of adolescents studying a foreign language at 6:30 in the morning with a student teacher ratio of sometimes one hundred to one, there were various aberrations in the listening period procedures, and the methodology was complicated by occasions when other activities, such as teachers drilling the students through rote memorization, rather than meaning-based instruction, imposed upon the study hall periods. Nonetheless, these aberrations affected the control groups to the same degree and frequency as the test groups and therefore the comparison of the independent variable, being the language of the tutorial recordings, remains valid.

[7] A number of students dropped out of seventh grade during the course of both testing phases, as is common at rural high schools in China. Some other students who were absent for large sections of the semester or who were absent the day of the assessments were not included in the comparison. In the first phase, our test groups were larger than our control groups due to the need to have seats available in the control group classroom for those non Zhuang-speaking students who needed to listen to the Chinese and English recordings during this time, though their scores were not considered in the analysis. During the second phase more classrooms were used such that the total number of eligible test group subjects was equal to that of control group subjects.

[8] The overall lower scores on the final mark (grade) as compared to the researchers' assessments is due to the fact that the final grade includes assessments of listening ability, grammar, reading and writing, whereas the semester assessment only tested vocabulary recognition. Though many of the students apparently did more poorly on these other English skills than they did in recognizing vocabulary, it is significant that the relative difference in marks between the control and test groups was similar to the difference between these group's vocabulary assessments, indicating that the variable may prove helpful for improving students performance in some of these other skills as well as in retaining and recognizing vocabulary.

[9] Both groups had only a single student achieve over 80.

[10] In theory, attendance through ninth grade is mandatory, but this is not enforced and many rural minority students, both male and female do not continue formal schooling after sixth grade, with many more dropping out permanently in middle school.

[11] We lack sufficient evidence to answer the question of why the degrees to which female students outperformed male students were greater on our assessments than on the final course marks as assigned by English teachers. Given that our assessments were graded without consideration of gender, and were merely multiple choice matching of English vocabulary items with Chinese glosses, we feel like we can rule out gender-bias against male students on our own assessments.

[12] Male students in the test group scored 17% higher on average on both of the English vocabulary assessments than did male students in the control group, whereas female students in the test group scored only around 8% higher than those in the control group.

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10. INNOVATION AND CHANGE IN ENGLISH TEACHING IN THE WESTERN PROVINCES OF CHINA

The Impact of Overseas Training

INTRODUCTION

In this article, we look at the continuing professional development (CPD) of English teachers – through the lens of a decade of experience in providing three-month courses at a UK university for more than 800 teachers from the Western provinces of China. Our main focus will be on changes in teachers' practice on their return. The international literature on teacher CPD (see, for instance, Harland & Kinder, 1997; Joyce & Showers 1988; Day, 1999; Ingvarson et al., 2003) has often grappled with this issue and the picture which emerges is sometimes discouraging. There is ample evidence, for instance, of the failure of attempts to implement change (Fullan, 2001) and of the superficial nature of the gains achieved (Cooley, 1997). Guskey (2000: 32) reminds us that many teachers perceive CPD to be irrelevant to their needs and of the fact that we still know relatively little about its impact. Hu (2005: 694) makes a similar point in relation to CPD for teachers in China:

> Although there is some evidence attesting to the impact of individual in-service programs on professional growth… the overall picture suggests, at best, only limited effects of formally organized in-service education on teachers' continuing development.

In a similar vein, Yan (2008: 587) underlines the importance of the sustainability of initiatives in CPD and of the need to 'help them become acclimatized to and firmly embedded in the local environment, evolve healthily and strongly, and further induce more fundamental changes.' Our interest, then, is on assessing the *impact* of the courses on participants' return to China rather than end of course evaluation.

In order to provide the context for discussion, we offer a brief overview of English teaching in China and the recent educational reforms, and explain how we set about designing and collecting data for two complementary studies. We present evidence for changes in teachers' philosophies of education; for improved competencies (linguistic, cultural and pedagogical); and for the ways in which participants have discharged new roles and responsibilities on their return.

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 191–215.

ENGLISH TEACHING IN CHINA

English was first introduced as a compulsory subject in middle schools in China in 1902 and so is by no means a new development (Zheng & Davison, 2008). Although Russian emerged as the preferred foreign language during the early years of the PRC, its importance diminished following the breakdown in diplomatic relations with the former USSR in the early 1960s. Teaching of languages during the Cultural Revolution between 1966 and 1976 was decentralized and sporadic but focused mainly on English, which has remained the most widely taught foreign language since that time. By the new millennium, close to 80 million secondary school students were studying the language (Hu, 2002). Initial training and CPD needs are therefore on a huge scale. In 2002 an estimated 470,000 teachers were involved in the teaching of English at the secondary level (Wang, 2007); this number will have risen substantially since that time.

Rigid teaching methods, shortages of qualified teachers and examination-driven instruction have all been identified as obstacles to high quality ELT; dissatisfaction with the outcomes has led to far reaching reform. Writers including Hu (2002), Wang (2007) and Zheng and Davison (2008) describe the profound changes that have taken place in recent decades. Emphasis has shifted over time from grammar-translation and audio-lingual methods, to more functional-structural, communicative and task-based approaches. Syllabuses and textbooks currently incorporate an eclectic pedagogy which aims to accommodate both Chinese and international approaches. For instance, teachers are encouraged to actively develop the cognitive skills often associated with the west, such as reasoning, imagination, and creativity, alongside the traditionally valued Chinese skills of observation and memorization. However, as Hu (2002: 36) points out:

> While [the more recent] textbooks have clear advantages over the more traditional ones… the big challenge for the educational authorities is to train a large contingent of teachers to use them effectively in a short time. Without adequate training, it is very likely that the new textbooks will be taught in old ways.

Since the implementation of the revised curriculum in 2005, there has been a growing expectation that teachers move from the traditional role of ‘knowledge transmitter’ to ‘multi-role educator’, from ‘learning to use’ to ‘learning by using’. This transformation requires them to develop new skills ‘for motivating learners in language learning… developing their learning strategies … [and] designing more task-based, cooperative and problem-solving activities in order to make students the center of learning’ (Wang, 2007: 101). In addition, they are expected to learn to use formative assessment, to adapt textbooks to meet the requirements of the curriculum and the needs of learners, and to use modem technology in their teaching. Fundamental to these new requirements is the need to improve their own English language proficiency.

CPD has been receiving high priority at national level for some time (MOE, 2000a, 2000b) and there is a growing awareness among teachers of the importance of career-long learning. There are currently three main providers: education colleges run by provincial and municipal educational authorities; tertiary teacher education and other institutions of higher learning; and overseas institutions and organizations. In some instances, the overseas provider has worked in collaboration with Chinese partners to deliver courses in China, as in the case of the Department for International Development (DfID) ELT projects which ran from the late 1970s to 2001 (Yan, 2008). On other occasions, delivery has taken place partly in China and partly in English speaking countries.

It was against this background that the UK University first started to develop three-month courses for teachers of English in collaboration with the China Scholarship Council (CSC), a non-profit organization affiliated to the Ministry of Education. Participants up to the age of 45 are selected by the CSC as part of a highly competitive process; places are either funded jointly by the CSC and the local education authorities or, in some cases, with a small contribution from the participating teachers' schools. The programme is based on the premise 'that professional learning is more likely to improve student learning outcomes if it increases teachers' understanding of the content they teach, how students learn that content and how to represent and convey that content in meaningful ways' (Ingvarson et al., 2003). The courses form part of China's Great Western Development Strategy which targets six provinces (Gansu, Guizhou, Qinghai, Shaanxi, Sichuan, and Yunnan), five autonomous regions (Guangxi, Inner Mongolia, Ningxia, Tibet, and Xinjiang), and one municipality (Chongqing), which comes directly under Central Government control (see Figure 1). They should also be seen in the context of the 1986 Nine-year Basic Education Law, which sets out to provide basic education in three phases: first, the richer seaboard areas, then the industrial hinterland, and finally the remote rural areas (Adamson & Morris, 1997). As Hu (2002) has indicated, considerable effort and resources are needed to improve the delivery of ELT in these areas in order to achieve parity with colleagues in more economically developed parts of China.

The approach adopted by the UK University is consistent with that of many other teacher education and professional development programmes. The focus in delivery is on constructivism rather than transmission: instruction is student-centered, interactive, and inquiry-oriented. The three month courses have four components: language teaching methodology; a one week school placement which allows participants to situate in actual classroom practice many of the issues covered in the methodology component; English language development; and a social and cultural programme which, alongside life in British host families, exposes them both to new experiences and allows them to apply newly acquired skills and knowledge.

Figure 1. Map of the western provinces
Source: Gelb & Chen (n.d.)

METHODOLOGY

In the first of the two complementary studies (hereafter Study A), we used case study as our framework, a blend of the 'connoisseur' approach which draws on researchers familiar with a subject or a programme to critically characterize and appraise it (the 'insider' perspective; see Weir & Roberts, 1994), and the client-centred approach which addresses concerns and issues of practitioners and other clients in a given setting (Stufflebeam & Webster, 1980).

Purposive sampling was used to identify schools representative of those sending participants on our programme. We had identified various factors at the outset which might influence the outcomes. It was possible, for instance, that there might be differences between schools in large municipalities and smaller cities and from one province to another. It would therefore be important to achieve a good mix and also a good geographical spread. An unexpected complication was the unrest in Xinjiang, which supplies in the region of 30 per cent of teachers for our courses, immediately prior to the fieldwork. Prudence dictated that this autonomous region should not be included. Fieldwork was ultimately conducted at four sites (Guiyang, Zunyi, Chongqing, and Chengdu) in three provincial capitals or municipalities in Southwest China (Guizhou, Sichuan, and Chongqing) in March 2010. School A in

Zunyi and School B in Chongqing – formed the main focus: here we interviewed former participants, head teachers and heads of English departments and colleagues who had not participated in the UK programme. In these and the other locations Guiyang and Chengdu), we also spoke to a wider range of other participants as well as educational administrators.

Our study was undertaken as part of a joint evaluation of the courses with the CSC. Our own interest related to the teachers in the schools; the CSC responsibility was for administrative aspects of teacher recruitment. This cooperation had both advantages and disadvantages. CSC arranged access to all schools, engaging in complex negotiations with education authorities at provincial and district levels. We provided details of the schools we wished to involve and the people that we wanted to see within the time available. CSC then liaised with the schools and, wherever possible, timetabled meetings in response to our requests. This modus operandi allowed us to by-pass the gatekeepers who would normally have been involved in permitting access to schools. As a result, we were able to achieve in the space of two weeks what might otherwise have taken many months. The disadvantages, of course, included the need to compromise on some aspects of the original research design, and the limited time available for reflection and follow up, reduced still further by the sometimes conflicting demands of CSC responsibilities in the evaluation.

We used three main methods of data collection (see Table 1). The first was open ended, semi-structured interviews with former participants in schools A and B, and with head teachers and heads of the English Department. The second was focus group discussions with two different groups: colleagues in the English Department in the A and B schools who had not taken part in the programme; a wide range of former participants from across the region who had responded to an invitation from CSC to join us in all four locations. Finally, we undertook a number of classroom observations of both former participants and non-participants. The aim, then, was to increase the validity of our findings by triangulating both the methods used – interviews, focus groups and observation – and the sources of information – participant and non-participant teachers and members of the senior management team. By drawing on these additional sources, the hope was to produce evidence which would either support or contradict the views expressed by teachers who had completed training.

Table 1. Data collection methods and participants

Method	*Numbers of interviews*	*Numbers of focus groups*	*Numbers of classroom observations*
Former participants	10	5	5
Non-participants	0	2	2
Head teachers/heads of section	10	0	0

We were acutely aware of the disadvantages of our 'insider' status as researchers trying to evaluate a course in which we played a key part in designing and delivering. People who had known and worked with us over a period of three months might well find it difficult to be frank in assessments of their experience. We took a range of measures to counteract these effects. Semi-structured interviews with the teachers in the Zunyi and Chonqing schools and focus group discussions with the teachers in the four schools in Chengdu were undertaken by Xiaorong Zhang who, at the time of data collection, was a PhD student. She had previously been a participant on the course but was unknown to the teachers in the study, schools with teachers who had attended the same course having been deliberately excluded. Daguo Li was responsible for the interviews and focus group discussions with non-participants. He was, however, at the request of the CSC, jointly responsible with colleagues from the CSC for four of the five discussions with the wider groups of former participants. All data collection was undertaken by Chinese native speakers, thereby eliminating cultural issues that might have arisen in interviews either in English or with English speakers. While we are conscious of the potential weaknesses of our data, the findings which we report below suggest a high level of reflection and critical awareness on the part of interviewees and focus group discussants, leading us to believe that attempts to reduce the effects of our insider status were successful.

Study B (hereafter Study B) formed the basis for Xiaorong Zhang's PhD dissertation. While the earlier study had achieved considerable breadth, she was keen to explore various issues relating to the depth of experience of the same participants over a longer period of time. A mixed methods design was employed: a quantitative approach in the form of surveys at the start and end of the three month training provides a general view of the participants' experience; a qualitative approach based around focus group discussions and interviews made it possible to investigate the research questions in greater depth. Data collection was undertaken in three stages: at the start of the course, at the end of the course and finally half a year later when the participants had returned to China. In the first stage, the whole cohort completed a survey of their existing knowledge and beliefs about EFL and their expectation of the course. During the second stage, all completed a second survey, this time exploring the extent to which the course met their needs; they also took part in focus group discussions, designed to add flesh to the bones provided by the survey. In the third stage, five participants, selected so as to represent both genders, a range of ages, teaching grades, types of school, their places of origin, and performance on the course were interviewed at two points in time: at the end of the course and about six months after their return.

For both studies focus group discussions and interviews were transcribed and, in the case of Study A, classroom observations were recorded using field notes. Data were then imported into NVivo8, a specialist software package for qualitative data analysis. Analytical categories were allowed to emerge from, rather than being imposed on, the data. In Study B, quantitative data were processed using the software package SPSS.

FINDINGS

The impact of the programmes on teachers' return to China can be grouped under three main headings: changes in philosophy; improvement in competencies; and new leadership roles. Most of the examples we cite are taken from Study A; reference to study B is used either to confirm conclusions drawn from Study B, or to introduce new perspectives on the earlier findings.

Changes in Philosophy

Hu (2005: 667) sums up what happens in Chinese classrooms in terms of an 'expository, teacher-centered pedagogical approach' where 'teachers are expected to be virtuosos of learning' whose priority is 'the selection, mediation, and transmission of authoritative knowledge'. Commentators on teaching and learning in China usually explain these expectations in terms of the deep-seated influence of Confucian philosophy on all aspects of Chinese social and cultural life. Confucianism provides a hierarchical structure which stresses mutual respect and harmony; its influence is particularly evident in the hierarchical relationships between students and teachers (Biggs, 1994; Chan, 1999). Students owe respect to those who provide knowledge and the authority of teachers is such that only they – and not the students – should initiate interactions in class. Such expectations are, of course, at odds with the requirements of communicative language teaching.

The tutors on our programme operated according to very different principles; participants also witnessed a very different pattern of teacher-pupil relationships during their school placements. This exposure made a deep impression. As Li Yan observed:

> The relationship between the [course participants] and the trainers was very equal. [The trainers] could kneel down to talk to you or answer your questions … During teaching, students and the teacher should have more eye contact, maintain level eye contact, rather than make students look up at you. And the class ritual of asking all the students to stand up at the start of a lesson [as is the usual practice in schools in China] is not necessary in my view.

Participants raised a wide range of closely related issues, including student-centredness, differentiation and enjoyment in learning, which flow from the philosophy which underpins both our programme and British education more generally. Many perceived these issues in terms of 'quality education', a concept they had been introduced to in China but which they had only begun to fully understand following their exposure to education in the UK.

According to Collins and O'Brien (2003):

> Student-centered instruction [SCI] is an instructional approach in which students influence the content, activities, materials, and pace of learning. This

> learning model places the student (learner) in the center of the learning process. The instructor provides students with opportunities to learn independently and from one another and coaches them in the skills they need to do so effectively.

'Student-centredness' and 'active learning' are often used more or less interchangeably in western educational discourse; the effectiveness of this approach is well established (Michael, 2006). Some participants interpreted student-centred teaching in terms of a refusal to spoon-feed pupils. This understanding was apparent, for instance in Hou Meili's comment on her observation of a biology lesson:

> The teacher didn't teach the things the students already knew but only focused on what the students did not know … There were only about ten students in the class … and they were not well behaved, but the teacher was able to conduct the lessons based on the needs of the students … The teacher asked them to design a poster, writing down the various uses of the vitamin … the students needed to write some of them down themselves and the teacher did not simply give the answer… This greatly inspired me.

Zhang Huilin also expressed approval for this approach to teaching:

> What impressed me most during the school placement was the shadowing experience, that is, following a student for a day. Their music lessons are totally different from those in China. Their music room is more like our computer room. For example, their students didn't just sit there listening to the teacher singing a song. They were composing by themselves … Obviously what they were trying to do is to really develop students' basic composing skills and other practical skills. … I feel we lag behind.

Differentiation has been an essential element in student-centred learning in the west for the last two decades. It allows for differences within a teaching group, and is designed to result in optimum learning outcomes for individual pupils (Battersby, 2002). This issue had clearly captured the imagination of course participants who commented on ways in which 'potential' in Chinese education was often defined in terms of examination outcomes. The British programme, in contrast, had alerted them to the importance of a broader understanding of potential. Li Mei commented on British children's experience of education in the following terms:

> You may not like the education at school, for instance, in terms of knowledge, but you like acting. No problem, I will teach you how to perform. You like cooking: there is a dedicated food technology room and the teacher teaches you how to cook interesting food. You like innovation or mechanics, there are also such special skills rooms – you can make things and there is a teacher on site to guide you. I feel these are good for the development of students' individuality.

Similarly, in applying this new understanding to her own situation, Dai Han highlighted the importance of 'respecting students as individuals, as every student is different – their intelligence, their learning styles, and their methods of study are all different.'

One activity during the programme which had clearly made a strong impression involved drawing a pen. Predictably, the end products were very varied. Fan Daoming, summed up what he had learned from this experience:

> [The trainer] emphasised a key concept, that is, to look at the pen from different perspectives … therefore, in terms of students, as a teacher, we should also look at things from their perspective, trying to be inclusive and encouraging …

This approach was in marked contrast with what he considered to be normal practice in China. Reflecting on what he would have done prior to the course, Fan Daoming commented:

> Before I would probably ignore these types of students, those who really did not want to learn. After I returned [from the UK], I felt there might actually be other reasons why these students did not want to study.

The notion of learning for fun also attracted comment. Educational policy in the west increasingly stresses the importance of enjoyment in education, both as a right and as a support for learning (Lumby, 2010). The emphasis on learning as an enjoyable experience in the CPD programme and in schools had clearly made an impression on participants. This impression was reinforced by observation of family life. According to Lin Shuting:

> I sometimes observed how the children of the home stay family and those in the neighbourhood learn. I felt then British children were as if living in paradise [compared with Chinese children]. After the comparison, I told myself I wanted to make sure my students wouldn't regard English learning as a kind of suffering.

Similar accounts of changes in philosophy were also a frequent feature in Study B, not only at the end of the three month training period but also six months after the five case study teachers had returned to China. In addition to the themes discussed above, there was widespread approval for the way in which Elizabeth, the teacher trainer, modelled instructional skills and techniques rather than simply talking about them. Typical comments include the following:

> I feel Elizabeth not only put across to us the beliefs and methods but also demonstrated how these would be applied. When teaching us about teaching philosophies, she didn't simply lecture us on abstract concepts but gave examples of how to use them. For instance, in describing cognitive constructivism, she used a paper clip to explain it. It's so amazing that such

> an abstract and complex theory could be illustrated with this easy example. I thought it incredible.

In a similar vein, Li Shuang was one of a number of participants who admired the rapport the trainer had developed with participants, very different from the teaching style they had adopted before the start of the course:

> We all feel that Elizabeth's personal charm and sincerity have won us over … She is so sensitive to the way we think and feel that she is able to respond straightaway to the slightest little problem and at a speed which makes you feel incredible.

Impact on Practice

Expressions of approval for the constructivist thrust of much western education do not necessarily translate into changed practice. In the case of the course participants, however, there was ample evidence that exposure to new ideas was at least influencing their self-reported approach to teaching on return; these reports were reinforced by classroom observation. Wan Ling, for instance, claimed that she no longer dominated classes to the same extent so that 'students did more and we teachers became a guide.' And according to Li Yan:

> After I came back, I was nicer to my students and more approachable. … I was also careful in my use of words, for example, I would no longer tell them 'If you have questions, you should ask me, you should ask me for advice'; instead, I would say, 'If you have questions, you can raise them and we can discuss them'. So the students also felt they were closer to you … and you could now discuss with them, consult them.

There was similarly evidence of greater differentiation and a willingness to support students in achieving their potential. As Shen Na explained:

> Before I participated in the programme, when I tested my students on their vocabulary, I thought I was going to find out who didn't do the homework I had left and punish those who didn't do it. Now it's different, … I remember … [in the UK, the trainer] was preparing us for the assessment, asking us to imagine how we would answer the question, what would the question look like…? I felt it was important to give us such a support or help before the assessment. So now in my own teaching, I give my students a lot of such support before their exams.

In a similar vein, Shen Na outlined her new approach to gap filling:

> I offer students two choices. They have the same material but with different words taken out. For the stronger students, I take out a word every four words; but for the weaker students, I take out a word every eight words… I use this

> kind of activity to enable students to discuss among themselves, for example, the comparative and superlative forms of the adjectives.

Participants also expressed excitement about the student response to innovations. Typical comments included:

> When I came back… I was teaching a unit called New Media. I asked my students to make a blackboard poster based on their own interests. They needed to collect their own materials. And the students did really well. They made a blackboard poster themselves and we put it up. It is still there and very beautiful.

> I asked the students to talk about an *Unforgettable Experience*… They immediately got interested … Once they are interested, you can achieve good results. Even if the weakest students did not understand, they would ask the students sitting next to them what the teacher had just said, or they would ask you directly what it was about. I felt that was very successful.

The gains reported for CPD in the wider literature include improved teacher confidence and self-efficacy or enhanced belief in their ability to make a difference to their pupils' learning; a greater commitment to changing practice; and willingness to try new approaches (EPPI, 2003). Such gains were evident in the self-reports of participants in the UK programme, as summarized by Fan Daoming:

> Before I went to the UK, I wasn't really sure about some of my teaching methods and strategies. After being in the UK … I feel more confident about their theoretical foundation and practical relevance … After the training, I feel I can do [what is required] so I am able to carry on more publicly without having to worry about anything … I made action plans in the UK. Since I came back, I have designed my lessons using the action plan as scaffolding, that is, I have no longer used the traditional lesson plans … This is because I have found the theoretical support for myself and I have become more confident.

Study B provided further confirmation of this growth in confidence and self-efficacy. Zeng Min, for instance, reported:

> When setting homework, I adopt the strategy we learned abroad … The top students do one type of exercise; the average ones do another type; and the weaker students do yet another type … Teachers [observing my lesson] appreciate my way of teaching. [So] I use this in almost every lesson.

IMPROVEMENT IN COMPETENCIES

Participants reported improved competencies in several areas of importance for their professional development as teachers: proficiency in English, lesson planning and delivery, and cultural understanding.

Proficiency in English

Wang (1999, 2007) points to the great variation in the quality of teachers in terms both of language proficiency and teaching ability. The low levels of proficiency in English attained by secondary school pupils have attracted considerable critical comment in China. Wei (2001), for instance, highlights the fragmentary knowledge of grammar and inadequate vocabulary of most children. The 2005 National Curriculum requires teachers to make considerable changes in professional practice, from knowledge- to competency-based teaching, and from transmitter of knowledge to facilitator of learning. However, unless teachers improve their own levels of proficiency in English, it is unrealistic to expect them to perform these new roles.

Participants in the UK programme commented on their improvement in speaking and understanding English. They reported that input both on their own pronunciation and approaches to the teaching of pronunciation had greatly improved intelligibility. By hearing authentic English speech in class, in their host families, in the community and on TV, as well as having opportunities to practice in a wide range of situations, their knowledge of vocabulary and idiomatic expressions had also increased. As Han Ding commented:

> I feel that now you are in the country yourself, you hear both standard and non-standard pronunciations… When I did not have lessons, I liked to watch football and seek opportunities to talk with people. The elderly British like to talk with others … I like this vivid, real, "pure English", "authentic English".

Dai Han made a similar point:

> I feel sure there was improvement because, at the start, I had to think in advance about what to say next, what comes first and what follows. But later on, no matter what, we speak as we like, not having to think too much. Even if it's just a word, once it's said, people could understand.

Wan Dawei summarized the benefits of a three-month stay thus:

> What I feel most strongly is my linguistic skills have improved. To be honest, before that I wasn't sure about many things. The three-month study has given me confidence in my own language… Before that I wasn't certain about some of what I said and did not feel confident about what I told my students… But now I am very confident and can explain what they are. The good thing is, when I feel more confident, I am better able to influence my students.

Again Study B confirmed these observations. Data from end-of-course focus group discussions and interviews with the case study teachers provided evidence for three main areas of improvement. First, speaking ability, particularly fluency and pronunciation had markedly improved. Second, there was distinct growth in their

confidence when speaking. Zeng Min, for instance, who comes from a remote part of Guizhou and had achieved a bare pass in the final assessment, commented:

> Now I'm not afraid of giving open lessons [type of lesson in China open to observation by peers or the School Management] of any kind. I'm even able to speak in English. My colleagues said my accent has been much better since I returned from the course. Everybody agrees on it (laughing).

Third, there was evidence that the language awareness component of the course had changed the way in which they evaluated students' speaking performance. As Li Qin commented:

> Another improvement is … we used to judge a learner by their accent … But, now we've learned intelligibility matters. Every country has its own accent … [now] we can reassure the students so that they won't lack confidence [about their pronunciation]. … Also we have changed how we judge other peoples' English.

Lesson Planning and Delivery

There is a disjunction in the initial training of teachers in China between English language proficiency and knowledge about the language, on the one hand, and the pedagogical skills required to teach English, on the other. As Hu (2005: 674) points out:

> The language skill courses are not generally concerned with how target language skills (i.e., listening, speaking, reading, and writing) and communication strategies can be developed in the secondary classroom; the language knowledge courses tend not to give any attention to how secondary students can best be helped to master specific language systems (e.g., pronunciation, grammar, and vocabulary).

For this reason, the focus of the programme is not simply improving participants' proficiency but also on extending their repertoire of teaching methods and there were strong indications that this approach has been successful.

We have already commented on more general changes related to the Confucian philosophy underpinning their teaching. There was also evidence of change related more specifically to the teaching of English. All the participants highlighted the practical teaching techniques, skills, and strategies that they had learned on the course. Examples of how they had been able to put this learning into practice included the use of active learning strategies, such as correction codes in student writing as a way of not only improving students' active learning, participation and autonomy, but also reducing teacher workload; mind maps in the learning of vocabulary; and songs and storytelling in order to engage and motivate students. Frequent reference was also

made to project work and cooperative learning (e.g., group work), clear indications of a significant move from the more traditional transmission model of teaching. Interestingly, participants such as Wei Wen in Study A reported that this approach was effective not only with younger students but also with the more examination oriented senior classes:

> For example, a specific aspect of grammar: during revision, I can ask the students to form groups to discuss this first. If students do not understand any aspect of the grammar, they can learn from the stronger students, who can offer help to them. After the students have a better understanding by learning from each other, the teacher can then follow up.

Cultural Understanding

Growing importance has been paid to cultural understanding in English for some time (Wang, 2007). One of the goals of the syllabi introduced in 2000 to both junior and senior secondary schools, for instance, is to 'instil in students a respect for meritorious cultural traditions of other nations and an understanding of, as well as love for, Chinese culture' (Hu, 2005: 36). Significantly, lessons in the most recent textbooks are topic-based, focusing not on linguistic structures but on culture-specific activities and introducing cross-cultural information (Hu, 2005: 39).

Participants who stayed with host families, were able to observe daily routines, rituals around food, and leisure activities. They reported a significant increase both in their cultural understanding and their ability to apply this understanding in the classroom. They were struck by what they perceived to be the courtesy of British drivers to pedestrians, British people's habit of queuing and their respect for their historical and cultural heritage. Travel in the UK and school placements also helped participants to build a much more sophisticated appreciation of British culture which increased their confidence in dealing with cultural issues in the textbooks they were using. Chen Shaohua summed up the significance of these experiences in the following terms:

> With home stay, we were able … to see what their daily life is like, through observing, listening, learning, and experiencing. Then we also had a school placement, observing how the teachers teach and how the students behave, even to see how they use punishment … We also visited some sites …These are useful for cultural understanding and knowledge and skills … Almost all the reading materials we use relate to cultural background. So when we explain to the students, it's more accurate.

Wan Ling made a similar observation:

> When you have had direct experience of British culture, you feel very confident in the classroom. When I talk about British culture, I feel it's easy and my students are very interested.

Lang Fangfang characterised her current teaching as more lively in relation to British culture, an observation with which many participants agreed:

> In terms of teaching, … it was very flat before, but now I feel it's very live or multi-dimensional. Here is a specific example: one unit in the textbook of Senior Two is about the British Isles. There is a map to go with the text. I had taught the unit before. Such a map is very flat even if it's downloaded from the internet, as it's very abstract even to myself. But after I stayed in the UK for three months, I can draw my own even with my eyes closed – piece of cake. Besides, when I taught that unit again, I tried to relate to culture and my own life experiences there. The students no longer found it boring; on the contrary, they felt it was very vivid.

As a result of studying and living for three months in the UK, some participants were able to reflect on their own culture and have developed a better awareness of Chinese society and culture.

With their increased competencies in the English language, pedagogical practice and cultural awareness and understanding, the vast majority of the participants expressed a noticeable increase in self-confidence in their professional life, which in many cases also seemed to have had a positive impact on their lives more generally.

Study B was able to explore cultural understanding in greater depth than the earlier study. The findings suggest that participants began to make the transition from outsiders to insiders in terms of social distance. Accounts of their intercultural experience show how their views of culture changed in response not only to literature, media and films but their own authentic experiences. Having had the opportunity to compare and contrast these experiences with their lives in China, they not only became more aware of their own culture, but were better able to share their insights on British culture with their students.

Constraints

The intellectual appreciation of the benefits of new approaches and new competencies, of course, can find itself in an uneasy tension with the structural demands of the workplace on return and, in particular, the examination system (Wu, 2001; Hu, 2005). The *Gaokao or* National College Entrance Examination (NCEE) is widely recognized as a major obstacle for reform, particularly in the teaching of English. For many years, they have been characterized by multiple-choice and blank filling, with a heavy emphasis on discrete-point knowledge of grammar and vocabulary and linguistic accuracy. Gradual transformation of the English test since the late 1990s has resulted in some lessening of pressure on teachers. However, this issue was identified by participants in our study as the greatest constraint on their ability to introduce innovation. As Wan Ling explained:

> After being on the UK programme, I feel I should emphasise communications more. But we are severely constrained by *Gaokao* – teaching in China revolves

> round *Gaokao*, just like a conductor's baton. [For example,] if listening is not tested on *Gaokao* and we ask our students to practise listening and speaking every day, they don't want to do it. And their parents wouldn't be happy for us to do it that way either. So if we don't get good exam results, we won't be accepted by society. So we feel a bit confused sometimes.

Not all former participants, however, felt as negative. Many reported success in implementing the new ideas, methods and techniques, even at Senior Three when the pressure of examinations was looming. Han Ding, for instance, describes his use of Communicative Language Teaching (CLT) in large classes in the following terms:

> I demonstrated it in the class I just taught [referring to the lesson the researchers had observed slightly earlier]. Group work, … pair work … I demonstrated all these to you. … I think CLT is possible in large classes. … [Some asked] can you still use CLT at Senior Three? I said why not? The essence of it is encouraging students to communicate and interact.

Other examples of new approaches being used with older students included techniques for motivating students, and for responding to writing; and the use of activities during exam revision. Significantly, these initiatives did not involve blindly copying what they had learned; instead, they were integrated into current practices.

Study B highlighted further constraints, including lack of enthusiasm for professional development. Tan, for instance, commented on the lack of engagement of colleagues though clearly felt sympathy for why this should be the case:

> To be honest, it's really hard to start anything meaningful. It's also extremely time consuming. In addition, we receive very poor treatment here. The school regulations are very strict and we're badly treated. So, the teachers have poor motivation. At least it affects teachers' motivation.

Additionally, the case study teachers also drew attention to obstacles peculiar to Western China. It is, for example, very difficult to conduct group work in a class of over 80 students as was the case for Xu, who teaches in a key school in Tibet. This resource problem was also reported by Deng and Zeng, who both teach in county schools situated in mountainous areas. Participants also commented on the lower skills levels widely associated with students in the Western provinces where standards are acknowledged to be lower than in the rest of China. Hu, for instance, pointed out:

> Our students are placed in three streams. It's impossible to use some ideas in the less able classes because they lack initiative. They are not particularly interested in English … If they don't understand vocabulary, supposedly as a tool for study, how can you persuade them to improve their thinking? It's rather hard.

NEW LEADERSHIP RESPONSIBILITIES

Participants have assumed a wide range of responsibilities since their return with significant numbers becoming subject leaders, research project leaders, heads of department, key teachers, mentors for young teachers, or leading figures in local English Associations; many have received awards since their return in competitions for teachers at provincial, municipal and district levels. There is evidence that they have been a driving force in teaching reform, research and school management and development; they have also played an important role in teachers' professional development through various kinds of cascade training.

Cascade Training

Tan's comment above has already highlighted the reluctance of some colleagues to engage in continuing professional development. Such reluctance is exacerbated by the poor quality of CPD in China which was highlighted both by participants in our studies and in the literature (Zuo & Wang, 2008; Ke & Hong, 2011). It should also be acknowledged at the outset that the cascade model which returning teachers are expected to adopt on their return is by no means unproblematic: when those involved in the delivery of the training are not sufficiently experienced or have not yet achieved a full understanding of the relevant issues, their ability to replicate course content is inevitably limited and complex concepts can be reduced to overly simplistic dichotomies (Chisolm, 2004). However, given the urgency of the modernization project, it is not surprising that the stakeholders – the CSC, the local education authorities and individual schools – should expect that returning participants cascade the learning which has taken place in the UK.

School-based CPD in China has a long and respectable history (Lo, 1984). There is a strong tradition of sharing and collaboration with teachers organized into teaching research groups composed either of all the teachers of a given subject in the school, or a sub-group of all the teachers of a subject for a given year group. Members of a teaching research group share a common workspace or room where teachers do their marking, discuss their teaching and their students, and undertake collective curriculum and lesson planning. Observation of lessons is another common activity. Lessons take three forms: ordinary, demonstration, and competition and teachers are required to undertake a set number of observations. Teachers also present end-of semester reports at group meetings where members reflect on aspects of their teaching. As Hu (2002: 681) points out, activities of this sort represent 'a form of continuous, job-embedded professional development'. The receptiveness of teachers in Chinese schools, then, to the cascading of knowledge, skills and strategies is far greater than might be the case in many other settings.

Examples of many of the activities discussed above were offered by returning teachers. In Study A, Sun Lian, for instance, commented: 'I have always thought that a teacher should be good at reflecting on and reviewing their own teaching, not just simply be a teaching technician… We … should reflect, and also guide other teachers to reflect'. In a similar vein, Shen Na explained:

> Every time we had a teaching and research activity, I would have a focussed topic. I would give out the UK handouts to my colleagues and then we would discuss as a group their relevance for our own situation. We now have a teaching group, or a feedback group. … I give about two public lessons every month. … After the lessons, I explain what the theories are behind what I've done, and then my colleagues offer their comments and opinions.

Teachers who had not participated in the UK programme confirmed that they had benefitted from their colleagues' overseas-based CPD. Based on the lessons they had observed participants delivering on their return, they commented on their breadth of vision, confidence and the benefits of exposure to authentic language and culture. Such comments were offered in the context of their own desire to break out of the professional rut in which they found themselves. Ms Wu expressed her frustrations thus:

> Our current teaching … is executed step by step based on what we have pre-planned, very routinized. So what is pressing for me is, wanting to develop a new way of thinking, or a new model. At the end of the day there need to be changes for things, including language teaching. So I really need some new information, particularly from overseas. So far we have only been following local perspectives…

The cascade training was not, however, limited to participants' immediate colleagues. Participants both drove and actively participated in various CPD activities beyond their own school. Considerable numbers had been involved in programmes for key teachers of English, organised by provincial, municipal, and district level education authorities. In their role as leading members of local professional associations, many were also involved in CPD activities at county or township level, such as the "Bring-lessons-to-rural schools" programme conducted by the Huanghuagang English Association.

It would seem, however, that the extent of this involvement was variable. Thus Zhang Shengli commented that, although she had benefitted in terms of her own professional development, she had reservations about the extent of her influence. Several participants expressed a strong desire for more organized follow-up activities which would ensure more effective cascading, including workshops, and the formation of an association where returnee teachers could pool ideas and experiences.

Research

Reflections from a number of the participants confirmed the growing interest in empirical and action research which has been flagged by writers such as Hu (2002). Several had been involved in research projects on teaching reform before they went to the UK and had used the experience of their study abroad as a platform for research activities upon return. Some, for instance, have been actively involved in investigating the reform and practice of English language teaching in rural areas of Shaanxi province. Li Hongyan, a teacher trainer based at an Institute of Education, had identified various obstacles to the implementation of the 2005 curriculum standards and ways of helping teachers in rural areas by applying the theoretical understandings acquired during training. Sun Danye, for her part, had been involved in action research in her own school:

> When I was studying in the UK … my school was in the very early stages of exploring [project work], but there was a wide interest. At that time … I had no idea how to do it. During my study there, … the handouts suddenly gave me a lot of ideas. … I felt, ah, project work is like this. When I came back, I mobilized all the [year groups] to participate in the projects in English…

Leadership Roles

Participants also identified personal gains associated with successful completion of the course: several had been promoted to leadership roles including head of department and deputy director of studies. They were therefore able to play a more important role in curriculum decisions such as the setting of teaching objectives and the adaptation of materials, as well as in the collective planning of lessons. They were also able to organise and drive teaching and research activities, research groups, teaching competitions and English contests. Some were also able to make a significant contribution to the international dimension in the work of their school. The following accounts offered by head teachers on the value-added dimension of teachers on their return were typical:

> Zhang Dazhi was an ordinary teacher when he went to Britain. But now he is the Head of our English Department. Sun Lian was already our Head of English Department when he went. But his experience of study in the UK, particularly the broadening of his international perspective, has been very useful… Since he came back, in addition to being outstanding in his own teaching, he has had more responsibility for educational research at our school and, more importantly, he has been invited to be a supervisor for Masters Students at Sichuan Normal University. These are clear examples of the changes and the progress they have made since their return.

> Ms Liang was sent out in 2006. When she returned from her three months' training, the school had clear and high expectations of her. First of all, from the perspective of management, when we had a re-shuffle of our administrative team, we asked her to join the team. She is now the Deputy Director of Studies at our Dufu Campus… She is mainly responsible for the management of Senior One and Senior Two.

IMPACT ON STUDENTS

Teachers' own reflections, the comments of senior management and colleagues who have not participated in the UK programme and our own classroom observation all attest to the impact of the overseas-based CPD on participants' classroom practices and professional development. Assessing the impact of this experience on students, however, is more difficult. As Goodall et al. (2006) point out: 'The vast majority of evaluation practice remains at the level of participant reaction and learning. The impact on student learning is rarely evaluated and if done so, is rarely executed very effectively or well'. Our own study is no exception to this general trend: we would have required considerably more time and resources to investigate this issue. We were, however, able to collect indirect evidence of the positive effects on students.

Teachers offered many examples of students having been both impressed and motivated by the fact that they had spent time in the UK. Li Mei, for instance, reported that her teaching was now considered more authentic, citing the student who had observed: 'I could never have imagined that this lady with an Oriental face could teach us in this very westernized style!' The most frequent argument advanced by teachers for the effectiveness of their CPD, however, was improved examination results and performance in student competitions. The following comments were typical:

> In our school, we have targets for first tier and second tier of the top universities. All 51 students in my top set were accepted by top universities… For the next set, I had 22 more accepted than the target. If you want a typical example, take Liang Li in the top set. His parents said his best score in English before was 74 [out of 150]. He was in my Senior Two class when I took over. I applied the philosophies and ideas I learnt in the UK … He got 116 on the national university entrance exam and was accepted by Nankai University [one of the top universities in China].

> When I came back, I organized my students to participate in the English Skills Competition of Guizhou province and all the top three prizes in Zunyi were in my class.

While teacher reports do not constitute reliable evidence of a positive impact on student outcomes, they do, of course, indicate perceptions that this is the case. It is also interesting to mention that, during the fieldwork, when we invited their

comments on the 'indirect' influence on students, some participants corrected us, insisting that they were reporting the 'direct' impact on their students.

LESSONS TO BE LEARNED

Our aim in these studies was to move beyond the routine end of course evaluations to take a critical look at the actual impact of our courses on teachers' return to China. Based in our reading of the literature on CPD for teachers, we had been conscious that teachers might fail to see the relevance of our courses for their work (Guskey, 2000; Yan, 2008). In addition, where teacher educators and teachers work at 'cultural boundaries' (Roberts, 1998: 3), as is the case in any partnership between overseas providers and Chinese clients, there is a real danger that providers are constrained by their inability to see beyond the prism of their own experience. When we embarked upon the studies reported in this paper we were very mindful of the possible gap between our aspirations and the expectations of the teachers following the programme. In the event, our fears were ill founded. There was little evidence, for instance, of the teacher apathy or resistance widely documented in investigations of CPD (Guskey, 2000). Although the momentum for the programme was top-down, participants were still enthusiastic about their experience, in the case of those included in the earlier study up to seven years after their return. Non-participating colleagues also expressed a strong desire to broaden their outlook through similar programmes.

Our attempts to assess the impact of the programme on their return can be summarized in two parts: first, in relation to individual teachers; second, in relation to colleagues in their own and other schools.

On an individual level, participants' philosophies of life and learning had undergone significant change. They demonstrated a heightened awareness of the central role of students in teaching and learning. Their linguistic skills and ability to design and conduct lessons, and their cultural awareness and insight had improved significantly. As is often the case with effective CPD, their confidence had increased considerably and, consequently, they perceived their teaching to be more effective. These perceptions were confirmed by colleagues and the senior management of their schools and validated both by provincial and, occasionally, national awards and by outstanding performances on the part of some of their students. Also on the level of the individual, many of the returning teachers have now joined the senior management team, and are actively involved in the reform of teaching in their schools.

Perhaps one of the most surprising findings of the studies was the enormous impact of the one-week school placement on participants: a large proportion of the reflections offered in interviews and focus group discussion referred to what they had observed in schools. The importance of the placement can no doubt be explained in terms of the opportunities it offered for situated learning, allowing teachers to make links between the content of their university-based learning and

actual classroom practice. Another striking finding, particularly evident in the later study, concerned the increased cultural awareness of participants, not least in the context of their experience of a three-month home stay. The vast majority clearly had a better understanding of British culture and demonstrated that they had reflected deeply on their experiences. By the end of the course, individuals could be placed along a continuum in terms of the extent to which they had achieved intercultural sensitivity or to which their stereotypes had been challenged. In particular, the data collected from the case study teachers six months after their return suggested that their experiences had helped them achieve a more balanced world vision; enhanced understanding of cultural background issues; and their ability to act as a bridge between British and Chinese culture in EFL education. Our own findings then, reinforce the conclusion of Yan (2008: 597) and other writers that 'successful innovation depends on the generation of realistically grounded knowledge relating to specific social, political and cultural contexts'.

The other evidence of impact related to work with colleagues: cascading effects were felt both within the participants' own school and beyond. Predictably, participants were able to play an important role in English language teaching in their own schools through mentoring or encouraging less experienced colleagues and leading teaching and research activities. Although overdependence on such cascading can be problematic, the highly collaborative teaching culture within Chinese schools has provided fertile ground for new ideas. The recognition of the special challenges facing teachers in the western provinces must of course be acknowledged: very large classes, and limited human and material resources inevitably have a negative effect on teacher willingness to engage in CPD. That said, nearly all the participants had been involved in cascading their learning not only in their own schools but well beyond, for example, through teacher training or other teaching and research activities at the municipal, provincial or even national levels. They clearly have a mission: by integrating new perspectives and techniques in their own practices, they see themselves as helping to implement the new curriculum in the Western Region.

This enthusiasm should not, of course, be taken to imply that teachers accepted new ideas uncritically. Nor would we wish to suggest that implementation of new approaches is unproblematic, particularly in an examination-driven education where assessment has not kept pace with curriculum reform. Significantly, the common thread running through the experience of many participants, and reflecting the imperatives of the new curriculum, was the desire to integrate more recent international developments with more traditional practices. Of course, the extent to which returnees are influencing English languages teaching is variable. We acknowledge that those offering accounts of their practice are likely to give the best possible gloss on their achievements. The picture which emerges is, however, consistent: the overseas-based CPD has, directly and indirectly, made

an impact on the practice of large numbers of teachers in schools in western China.

We are also very conscious that while the data collected through interviews, focus groups and observation present a consistent and persuasive picture of the impact on actual teacher practice, assessments of the impact on student outcomes is well beyond the scope of the present study. The perceptions of participating and non-participating teachers, as well as head teachers and senior management are that returnees are making a real difference in terms of student performance. It should be stressed, however, that these observations are impressionistic rather than objective; the measurement of student outcomes is a highly complex issue, especially when curriculum and assessment may be out of step.

The recognition of English as an essential element in the modernization of China, together with the growing awareness of the weaknesses of traditional approaches to the teaching of the language has opened up new spaces for dialogue concerning pedagogy and professional practice. It is clearly important, however, that new approaches to the teaching of English are presented in a way which allows teachers to decide which elements should be incorporated into their teaching and how. The role of research in this process should not be underestimated. As Zheng & Davison (2008: 180) point out:

> Most teaching programmes attach great attention to transmitting subject matter knowledge to teachers… In future, training programmes should include more information about the latest pedagogic innovation and change and academic research both inside and outside China in order to help teachers to carry out more action research-based study so that they can explore their pedagogic spaces and reflect on their beliefs and practices.

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11. DECIPHERING DIFFERENCE

Educational Policy and Practice for Western China's Muslim Women

INTRODUCTION

The People's Republic of China is a country comprised of provinces, autonomous regions, municipalities and special administrative regions. This particular volume is dedicated to the study of western China, defined by the editors as the Gansu, Guizhou, Qinghai, Shaanxi, Sichuan and Yunnan provinces, the Chongqing municipality, and the autonomous regions of Ningxia, Tibet and Xinjiang. A significant percentage of the region's population is comprised of Muslim ethnic minorities. An analysis of governmental policies, with an eye toward the ways in which and extent to which they address the needs of Muslim female adults in this region, is an important study because policy guides individuals' chances for improved living standards in general, and educational opportunities in particular.

POLICIES FOR THE NATION

The People's Republic of China was established by the Chinese Communist Party in 1949. The development in the Republic resulted in a major political shift from dynastic domination where male elites eligible to participate in the educational system benefited from educational opportunities, to a system of socialist governance that sought to promote educational opportunity for all. The subsequent evolution of the political system contributed to the development of and support for a social revolution in which education was guided by policies that addressed the needs of the adult learner.

One of the first examples was the Chinese government's adoption and enforcement of a set of policies that promoted national equity (and unity). The government established what it calls "special-purpose funds", including the Subsidy for Ethnic Minority Areas (in 1955) and the Fund for Ethnic Minority Areas (in 1964). In addition, its "preferential policies" sought to help "…develop economies and improve the living standards for the ethnic minority population" (http://www.china.org.cn/e-white/20050301/II.htm). On the one hand, the policies these documents distinguished difference in terms of ethnic minority status (from Han majority status). On the other hand, the terms "unity" hold prominent status in the

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documents, and may be a reason why attention to the particular cultural differences of the majority and minority populations is not fleshed out in the documents. The question of the weight of the importance of ethnic minority status versus the importance of their unification and integration is an unanswered question that begs our attention. A particular concern is the status of women from ethnic minority populations.

The first National People's Congress (1954) was the setting for a discussion that included ethnic minorities in the context of the Constitution of the People's Republic of China. And by 1958, four regional-level autonomous governments had been formed, each recognizing the predominance of a particular group. In the western region, the Xinjiang-Uyghur and Ningxia Autonomous Regions, whose majority population was Muslim, gained this status. Tibet followed in 1965. During this time, it is clear that the central government placed the responsibility of social services, such as education, at the hands of local governments instead of planning for and taking the responsibility of these social services at the country level.

During the period between October 1976 and April 1977, attention to the educational system became more apparent, but still fell short to advance educational opportunities for the ethnic minorities in general and for women in particular. In the late 1970s, Deng Xiaoping introduced the "four modernizations" into educational policy design. This initiative translated into a demand for a reorganization of basic administrative structures in education (and science) (Ngok, 2007). One outcome of the reorganization was the re-attention to "local" in terms of the population that education needed to serve. In May 1980, the Secretary General Office of the Central Committee of the Chinese Communist Party noted that the education of both workers and peasants should be a national priority (Sun, 2011). As a result, the Ministry of Education's (hereafter referred to as the MOE) Policies for Resolving Issues of Workers' University, Part-time College, and Graduates from Correspondence and Evening Schools of Higher Education suggests that degrees from such institutions were of equal value. The degrees provided assurance to those applying for an equal chance to obtain employment when in competition with others. Although this document achieved its goal to highlight the case of the rural resident, it does not address its population of minority women (and men) without a formal school, even though a substantial percentage of the population fit into this category. Also in 1980, the Opinions to Strengthen Education Work of Minority Nationalities document jointly issued by the MOE and the State National Affairs Commission sought to focus educational opportunities for minorities towards jobs that contribute to both economic growth and modernization. While this document was an important one for adults, it did not include a plan for educational programming that helps to impart necessary knowledge and skills specifically for mothers and homemakers in the northwestern region to qualify for and assume jobs in the formal sector of the economy. In other words, general statements about the needs of ethnic minorities graced the pages of official documents, yet consideration of the cultural markers

(such as religion and language) that earned them an ethnic minority distinction failed to be considered in the documents.

The revised Constitution of 1982 reaffirmed the rights of autonomy for national minorities, and may be interpreted as an effort toward an appropriate education for the adult minority population. Article 122 proclaims that "[T]he state gives financial, physical and technical assistance to the minority nationalities to accelerate their economic and cultural development." This law paved the way for educational programs for minorities (Mackerras, 1994). Specifically, it empowered minority national autonomous regions to decide their own education programmes. Decisions could now be made about not only the types of programs but also the languages of instruction for them. One disappointment exists, however. No consideration of the differences in the ability of women and men to gain an education was noted in the documents. Without the consideration of how women and men differ in the ability to gain an education, which is largely based on the needs of the family and the expectations of the woman to assume major responsibilities therein, local communities' attempts to design and develop programs may fall short in helping women to take part in any program, and, hence, progress through the educational system.

More specificity related to education-related options appeared in Article 37 of the Law of Regional Autonomy of 1984 (revised in 2001), which noted the need to develop educational opportunities for minorities with the expressed purpose to eliminate illiteracy, establish various kinds of schools, encourage nine-year compulsory education, develop regular secondary, vocational and technical education, and develop higher education, in order to offer minorities specialized training (http://www.tibetjustice.org/materials/china/china6.html accessed on May 27, 2014). This law held an unprecedented opportunity to plan, develop, implement, and evaluate various types of educational opportunities for the minorities in general and women in particular. Yet this opportunity did not result in attention to women. Here, the concept of "local" (Kipnis, 2011; Maslak, 2014) could have been interpreted as a means to identify women's cases and create initiatives specifically directed toward them. Although several official governmental documents recognize the "local" in rural areas, the rights of women were not highlighted in them. For example, the Law of the People's Republic of China on Regional Ethnicity Autonomy, Ministry of Education policies (Articles 10, 17, 18), and Articles 50–53 of the Chinese People's Political Consultative Congress of 1949, reference the need to ratify laws that are based on local conditions (Mackerras, 1994), but neither made mention of particular groups nor women.

Yet another opportunity came a few years later when on June 23, 1987, the State Council approved the Decision on the Reform and Development of Adult Education. This Decision illuminated adult education's role in promoting social, economic, and scientific advances (Sun, 2011). Here, the document that served the rural sector focused on the role of education for peasants and the job skills of workers. In it, the document listed four areas of concern:

> to provide education and training of cultural knowledge and skills for those who have changed jobs and for new job-seekers; to provide literacy skills for those in need; to offer a continuation of education for those who have left the educational system; and to educate for social awareness. (Ministry of Education, 2001, II)

More attention to the need for a literate population came in China's Education and Development Plan in 1992. This document planned for literacy instruction for 36 million adults by 1999. Vocational schools offered programs that trained "medium-level skilled workers, farmers, and managerial and technical personnel" in two to four years. Schools for skilled workers trained junior middle school graduates for positions in production and operations. Yet the need for basic level literacy skills classes for women, for example, had not become popular. Hence, a significant portion of that 36 million remained illiterate. Muslim women were particularly disadvantaged because most had not yet obtained functional literacy skills that would have been acquired in primary school, and which would have qualified them for such programs.

From 1991–1995, documents (including the 8th 5-Year Plan, 1991–1995) once again focused attention on the needs of the rural minority community. For example, the State Council's Guidelines for the Reform and Development of Education in China, as well as the Decision on the Deepening of Educational Reform and the Full Promotion of Quality Education outlined the directions for the development of basic education until the 21st century. In these proclamations, the State Council's decision of a way to "deepen reform and accelerate development" of minority education was to employ minority teachers. Although the rhetoric addressed the rural segment of the population, literacy programs for women did not place prominently amongst the suggestions. Having said that, the fifth Plan devoted considerable discussion to vocational and technical training for the rural population.

Many articles in the Education Law that were adopted at the eighth National People's Congress on March 18, 1995 referenced adult education for the minorities. For example, Articles 2, 9,10, 19, and 23 address adult education as a basic right, with specific emphasis on the need to develop education in poor "remote" border areas of the country (Regional Autonomy for Ethic Minorities in China, http://www.china.org.cn/e-white/20050301/II.htm).

The country's Vocational Education Law of 1996 echoed the Fifth Plan regarding the need for alternative education for adults. This law sought to adopt both a vocational education system and an adult education system. It reads:

> [V]ocational education is to be developed proactively and the scale of regular senior education should be expanded properly. In order to meet the requirement that vocational education should be more adaptive to the economic restructure and the development of townships, the national government calls for a new notion that vocational education shall be oriented by employment.

Although strong in its own right, this law was not linked to the earlier calls for literacy education, which could have helped women take advantage of the vocational education initiative. Had literacy skill development been aligned with vocational education law, planning and implementation of sound educational programs could have helped the adult female population in the region. But literacy education was addressed in other ways.

Adult primary and secondary schools, as well as distance education provided some help, but statistics indicate these were not popular choices amongst the rural population. Enrollment in such schools consistently decreased from 1987–2006. Table 1 shows the consistent decline in enrollment (with the exception of 2003 and 2004) in adult primary schools for workers and peasants. It is not evident if declining enrollment was caused by fewer courses, disinterest in, or inability to enroll in such programs.

Table 1. Adult primary school enrollment and graduation statistics

Year	*Schools*	*Graduates*	*Enrollment*
1997	14.08	403.54	353.00
1998	13.42	320.89	311.09
1999	12.87	299.27	283.19
2000	10.75	258.04	252.99
2001	8.59	220.51	201.49
2002	7.03	174.45	177.39
2003	5.59	203.14	195.22
2004	4.72	204.58	242.54
2005	4.36	169.05	192.44
2006	4.04	164.61	167.46
2007	3.30	95.78	103.76

Source: Statistical Bulletin of Educational Development in China (1997–2006)

Secondary specialized schools for adults appeared to be the most popular among junior secondary school graduates, but enrollment in these schools also declined from 1997 to 2007. Table 2 indicates these data.

And enrollment in and graduation from adult specialized secondary schools (Table 3) did not differ substantially from enrollment in the other schools. These schools include “general secondary schools for staff and workers”, “radio/television specialized secondary schools”, and “correspondence specialized secondary schools”. They, too, failed to maintain students, although reasons for this situation

Table 2. Regular senior secondary adult schools (1987–2006) statistics

Year	*Schools*	*Graduate (in 10000)*	*Enrollment (in 10000)*
1997	2430	25.39	40.51
1998	2700	27.82	39.63
1999	2891	29.75	43.15
2000	1967	22.90	32.59
2001	1723	22.00	31.02
2002	1463	23.81	33.52
2003	1317	16.48	21.85
2004	955	13.86	19.37
2005	974	12.41	21.81
2006	839	12.41	17.47
2007	742	16.47	18.08

are unclear. Moreover, statistics do not indicate the percentages of Muslim women who enrolled in and graduated from the programs.

Table 3. Adult specialized secondary schools statistics

Year	*Schools*	*Graduates (in 10000)*	*Enrollment (in 10000)*
1997	5113	9122	26638
1998	5068	1214	34187
1999	5165	11881	30212
2000	4634	11140	24028
2001	4113	9063	18916
2002	3473	6886	15334
2003	2823	4003	10545
2004	2742	3955	10335
2005	2582	3939	11255
2006	2350	3994	10759
2007	2120	3809	11298

Source: Statistical Bulletin of Educational Development in China (1997–2007)

During this time, and in addition to the low enrollment and graduation figures which signal "development", a number of economic indicators also illuminated the fact that the western region of the country was not developing at the same rate as the

eastern region. Given that education was still viewed as a necessary component of advancement, it became increasingly clear that education needed to become a bigger component of the plan for national development. It was with this in mind that the CPC's Central Committee and the State Council implemented the West Development Strategy that supposedly complemented all the work that had gone into educational policies of earlier decades. The strategy was one of the topics discussed at the State Council's National Conference on Education in Rural Areas in 2003. As a result of the meeting (fifty-four years after the last conference devoted to rural education), the Decision on Further Intensifying the Efforts on Rural Education by the State Council prioritized rural education. The document stated that education in rural areas contributes to the development of the national educational system, and the education of farmers must be a primary focus. But while the document emphasized life and vocational skill training for labor workers, as well as agricultural skill training for farmers, it failed to consider and plan for women's education. Without considering women's roles as wife and mother, in the context of her studies, the document had little chance to achieve the goals it set out to accomplish.

That recognition, at least in part, came later, in 2003 with the Circular about Further Strengthening the Reemployment of Laid-off Women. The document emphasizes the need for additional training for women. But, as the title indicates, its limited scope only focuses on out-of-work female employees, which assumes that women were previously employed. Several problems arise with the document. First, it does not provide a review of the need for literacy skills amongst that segment of the population. Second, it does not address the need to expand skill training for women in order to improve their chances for more, different, and/or better employment. Third, the document limited the target population as women out of work, instead of women who performed any type of work, including work in the informal sector. However, the attention to literacy did, in fact, occur with the Programme for Strategic Breakthrough in the Universalisation of Nine-Year Compulsory Education and Eradication of Illiteracy among Middle-Aged and Young Group in the West. This document offers details for required education that would be used to either address the illiterate population or provide education through the ninth grade for those with some primary schooling. The document did not, however, offer specific plans to achieve a basic education for all women in the region.

To date, the central government maintained a history of formulating and publishing documents that address education for ethnic minorities, as well as its assumed importance of literacy. However, those same documents (whether government-created contracts such as laws and development plans or related opinion papers) fell short in offering a comprehensive plan that recognized the circumstances of the rural-residing Muslim female whose multitudinous responsibilities at home challenge her ability to participate in and benefit from educational programs. But the potential to change gears was presented once again with the 2003–2007 Education Promotion Action Plan.

Whereas the documents to this point in time originated from and concerned services provided by the State, it was with the 2003–2007 Education Promotion Action Plan that the government extended its scope of services outside the parameter of the central government. This plan sought the support of employers. It endorsed the need for both full-time and part-time credit-earning work-related programs. In another attempt to recognize the link between education in the classroom and work in the community, and around the same time, the Ministry of Education's Guidelines for the Further Promotion of Community Education (2004) further addresses the need to support adult learners with support from local communities. The idea of community education was echoed in one of the most recent documents, the Outline of National Medium and Long-term Plan of Education Reform and Development (2010–2020). This document highlights the strategic objectives of a life-long education (Hong, 2010; Peng, 2000). In it, the need for an educational system that meets current needs is explained, but, unfortunately, it addresses only the literate segment of the population because it offers plans to build on citizens' existing formal education. It states a

> ...more open and flexible school education system will be developed to meet the diversified needs of learners. For instance, vocational education institutions at both secondary and tertiary levels are encouraged to provide programmes including both compensatory general education and formal education for all members of society, especially unemployed or young people waiting for employment. High schools and higher education institutions will adopt more flexible schedules and relax age and other times set for admission.

One additional form of education has also been attempted, albeit on a limited basis. Since 1990s, the Chinese government developed distance education in the country; it has been used in the western region. It integrated different multimedia (of broadcast, television, etc.) for "diploma-oriented academic education" and "non-diploma-oriented academic education".

Although various types of distance education have been attempted, the central government suggests that the China Range Burning Broadcast and Television School, as well as the Central Agricultural Broadcast and Television School offered the greatest potential to reach the citizens in the western region. The Range Burning School provided over 10 million rural-residing residents with an opportunity to learn remotely. This statistic neither provides information on the completion rate of students nor the extent to which Muslim women participated. The Central Agricultural School offered specialized secondary education in terms of both diploma and non-diploma courses to farmers. Statistics could not be located to assess the ratio of men to women, nor majority (Han) to minority (e.g., Muslim women) adult recipients of this school's success rate.

Higher education is another option for those with a secondary education. Radio/television universities, workers' colleges, and peasants' colleges are several types of institutions which offer programs for adults. Given percentages of Muslim women

from the western region with basic literacy skills, higher education most likely benefited Han women who graduated from secondary schools in the region.

In sum, although attention to adult education has remained a point of both educational policy, reports, and statements that call for an appropriate education for all rural-residing adults, and corresponding programs sought to realize their subsequent plans, the efforts to offer formal, vocational, and literacy education for women from Muslim minority groups in the western region have fallen short of expectations. Why?

POLICY'S MISSING PARTS AND PRACTICAL CHALLENGES

There is no doubt that the People's Republic of China's governmental authorities have recognized its ethnically diverse population. Over many decades, the PRC has made impressive progress toward highlighting the case of the ethnic nationalities. The educational system, as an arm of the government, has, to some extent echoed the need to provide educational opportunities for the Muslim ethnic minority population in the western region. However, the PRC in general and the MOE in particular have not focused on the fact that education is firmly embedded in the social and cultural structures of institutions whose norms influence the ways in which people think about education, are able to access it, and are able to use it. The scholarly community has studied this situation, and important work has emanated from their efforts.

Scholars have identified challenges to conceptualize, plan and implement educational policies for ethnic minorities (Lang, 2010; Lam, 2007; Postiglione, Zhu, & Jiao, 2004; Qian, 2013; Shen & Qian, 2011; Sun, 2009; Xia, 2008; Zang, 2012; Zhao, 2011; Zhu, 2010) which all, to varying degrees, recognize the complex social influences that must be recognized when planning for women's education. Without considering both the social and the cultural make-up of both majority and minority populations of women (and men) in local communities, educational programs have little chance to be successful in the western (and any) region of China.

The next section of this chapter attempts to address the lacunae in the documents by offering a new model to frame educational opportunities for (Muslim) women from the western region of China. It introduces this idea by first discussing the meanings of ethnic minority status and its application to the concept of access, one element of many educational policies which is critically important to enroll women in and enable them to graduate from educational programs.

The Importance of Ethnic Minority Status

The subject of ethnic minority status, its definitions and meanings, has been examined in the fields of political science, sociology, education, and anthropology. Modernist theories of ethnicity note that the idea of an ethnic group is one that is based on an historical past, shaped by present social situations, people's worldview, and aspirations. When we define an ethnic group in this way, we also

recognize distinct yet related social, cultural, and economic elements of culture. In China, for example, Gladney (1991, 1994) used modernist ideas when studying the Hui in terms of shared traditions in the context of political and economic realities.

It's with this in mind that we recognize that language and religion play a role in chances for an education (Maslak, 2014, Maslak, 2007; Maslak, 2005). But many of the PRC's policies, dictates, laws, and pronouncements defined and highlighted the status of ethnic minorities without considering what is meant by the culture of ethnic minorities. For example, Issues related to linguistic differences appear to have been forgotten in policy planning. Moreover, the failure to examine Muslim women's social roles as wives, mothers, caretakers and workers limits the extent to which women can seek an education, let alone benefit from it. Herein lies the problem. The aforementioned laws, dictates, "opinions" and outlines have offered plans (of varying complexity and possibility) for education for those in need (e.g., women), however simply defining 'minority' and 'women' without unpacking meanings of those terms and considering them in the policy planning stages results in a failure to offer an appropriate and valuable system that can benefit.

Access for Ethnic Minority Women

One important facet of any educational policy (and the success of the educational programs described therein) is access. Access can be examined in numerous ways. First, access in terms of physical location of courses is a critically important element for successful policy. Residents of rural communities do not have the ability to travel to distant locations for study. Second, access in terms of course work planned to occur during times when work schedules and family commitments do not cause conflicts must be considered. Third, access in terms of appropriate, useful materials for class use must be provided and used. For example, languages vary amongst groups. Acknowledgement of linguistic differences should be made.

Although women comprise approximately half of the adult learner population, only one document in those reviewed earlier specifically focused on the special situation of women. Whereas one can only speculate reasons why attention to women in general and Muslim women from ethnic minority groups in particular has failed to figure prominently in Chinese documents, the international global community has addressed this issue. The Women in Development approach to development theory and practice focused on the woman as a critical partner in society's advancement. Later, the Gender and Development framework recognized that women's needs cannot be adequately addressed without considering their status and responsibilities within real-life social communities in which gender plays a prominent role. Both the WID and the GAD frameworks have been used to frame policies for women (and men). Unfortunately, the PRC's central government, like many governments, appears to conceptualize education as a stand-alone entity that is not dependent on the

social-cultural structures in which the women (and men) live and work. Although the WID and GAD frameworks are not the only resources available to China's policy makers, the exclusion of their underlying tenets from the philosophies that contributed to educational policy making and educational program planning has had negative consequences for Muslim women in the country. For example, the government's policies and plans have limited their focus on the needs of women in general and Muslim women in particular. Social, religious, and cultural norms (one of the foci of the GAD framework) that contribute to the roles that Muslim women play as homemakers and childcare providers and that interface with the access to and ability to benefit from educational programs have not been considered often enough when crafting policies regarding the education of women. And, indeed, even though the government addressed local educational needs through various governmental policies, the country has largely failed to provide Muslim women from ethnic minority groups in the West with the same opportunities as those in other areas of the country.

In short, although the Chinese government's documents that were reviewed in this chapter distinguished difference in terms of (Muslim) ethnic minority status (from Han majority status), success in providing policy to meet the needs of the Muslim minority population has fallen short of expectations. On the one hand, the central government sought to recognize the ethnic minorities. On the other hand, both the central government and special interest groups that addressed their needs failed to consider and incorporate the very factors and forces that differentiate them from the majority in documents to ensure success of those very dictates.

Without considering how cultural forces factor into the lives of Muslim ethnic minority women, and shaping policies to recognize the differences within a multi-ethnic population, policies will fail in their attempts to further the educational choices for, the chances to enroll in, and the ability to continue through the formal educational system for the very population they seek to serve. Second, plans for the female adult student require thoughtful consideration of materials that are appropriate. Curriculum design should include the use of appropriate literacy materials and course work that results in both knowledge and skills that enhance Muslim women's personal and professional lives. To date, the policies, plans, and documents do not offer an appropriate, flexible model for education that not only considers the lives of adult Muslim women but also plans for an educational opportunity that can meet her need for a formal education that results in a job that supports herself and her family. A brief review of a new model for women's education – the Integrated Education Model (Maslak, 2014) – for vocational education and training for adult women offers one possibility.

The Integrated Education Model

Although women from the PRC have benefited from both formal and non-formal education, there remains a segment of the adult female population, especially from

the poor, rural western region, that neither benefited from nor had the opportunity to participate in the educational programming that was deemed necessary and appropriate for the population. Yet as we know, the PRC recognizes the continual challenge to educate all members of society. For example, the Chinese government states

> ...the educational needs of these different groups are highly diversified in terms of types of education or training to be provided, content of instruction, patterns of provision and duration of study. Thus, the challenges and tasks faced by China's continuing education are highly complex and difficult to accomplish. (http://www.china.org.c/e-white/20050301/Preface.htm)

The Integrated Education Model (Maslak, 2104) is an original model that is designed to provide an appropriate educational opportunity for rural-residing women, and can be applied to the case of women from Muslim ethnic minority groups in the western region. The model is based on an interdisciplinary collection of research which considers setting (e.g., see Ambrose & Ogilvie, 2010; Groch et al., 2012; Zacharakis et al., 2011), diverse groups of learners (e.g., see Boeren et al., 2012; Smith, 2011), and a variety of pedagogical methods (e.g., see Bolea, 2012; Warren, 2012). Its components – informal education, non-formal education and formal education – are described herein.

The Model (which was developed during the author's field work in Gansu that examined entrepreneurships of Dongxiang women) is a conduit for the acquisition and use of knowledge and skills that will enable women to secure a job. First, informal education is used in the model to gauge how women share, learn, and produce understandings of their own knowledge. It is also used a strategy to discuss not only that which they learn in everyday settings with others but also understandings of course work that they learn in class (Sandlin et al., 2013; Werquin, 2012). Second, non-formal educational course material includes instruction in basic literacy and numeracy skills that are required to function as an independent member of the community. Third, a formal educational credential/certificate that is recognized by the government enables her with the qualification to seek meaningful work in the community.

Part I of the model: Informal education. The Model's fundamental building block is informal education. In this model, informal education is the *center* and *focal point* from which all learning occurs. In the macroscopic sense, informal education is "… the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment" (La Belle, 1982, p. 162). Coombs and Ahmed (1974) define four characteristics of informal education that are relevant for the case of women from western China. First, informal education is relevant to all groups. Second, informal education concerns a particular category of person. Third, informal education reflects clearly defined purposes of practical skills that contribute to life-long learning. And fourth, informal

education reflects a flexible approach of both organization and methods. In this case, informal learning occurs at any time, in any place, and through any means. In other words, "…informal educational characteristics reflect the contact individuals have with a variety of environmental influences that result in day-to-day learning" (Liu & Constable, 2010, p. 163).

The contact between women and members of their communities not only offer chances to share prior knowledge, but also learn from members of the community (Sandlin et al., 2013; Werquin, 2012). It is through informal means of interactions, reactions, and collaborations that the individual thinks about, employs, and reacts to situations in the (work) environment that can contribute to her job success (Coombs & Ahmed, 1974). Informal learning is also utilized in the model as it pertains to the women's courses and practica in the business community.

Part II of the model: Non-formal education. Non-formal education, the second part of the model, has been defined as "...any organized, systematic, educational activity carried on outside the frame of the formal system to provide selected types of learning to particular subgroups in the population" (LaBelle, 1986, p. 2). Non-formal education is employed in the Integrated Education Model in two ways. First, a series of literacy classes, conducted in both native languages and Mandarin, is made available to students. Literacy here is defined as the ability to read, write and utilize basic numeracy skills. Second, an appropriate curriculum, such as one related to business and entrepreneurial enterprises, is offered. The original model calls for courses related to creating a business plan, budgeting, manufacturing/producing, sales, advertisement, and future development. Here, basic classes in communication skills for business are offered. Having said that, this part of the model could be changed to provide an appropriate curriculum for any job, position and/or career of interest to women.

Part III of the model: A formal credential. It is widely accepted that a formal education is important in today's wage-earning society because it recognizes a particular level of learning that is endorsed by a governmental agency. It is widely known that the credential earned upon completion of a state-run system that affords the recipient with not only skills but also possibilities to utilize those skills that are greater than the person without that credential. The standardization of education for women from areas such as the western region of China must be established and maintained in order to enable women to be competitive in today's job market.

Non-formal education classes take place at a convenient time and place for the community of learners. Application of the information learned in the classes occurs in work-related settings that compliment the curriculum of the program. Assessments throughout the program, as well as an evaluation at the end of it, finalizes the degree.

CONCLUSION

The central government of the People's Republic of China has recognized the importance of education for all. By developing national policies, the central government demonstrates the need for guidelines that offer various types of education that attempt to meet the needs of the general population. But the recognized decreasing enrollment rates and lower levels of educational attainment of women in the western region of the PRC indicate that the government has fallen short of its goals. One problem was its inattention to the very heart of the educational system – the community. Without considering the ways in which cultural, social, religious institutions and their norms influence and affect people's actions and behaviors, the chance of an educational system's success is far from guaranteed. The unfortunate outcome of the government's ignorance, or lack of recognition for the ways in which social systems contribute to people's educational choices and chances, has resulted in the continued lower status of under-educated women from ethnic minority groups in the western region. Consideration of the importance of culture and its integration into future policies is one way to improve future policies for Muslim minority women.

NOTES

[1] The other two provinces included Inner Mongolia and Guangxi-Zhuang.
[2] The document neither addresses women interested in joining the workforce for the first time nor women presently employed but interested in finding a different job.
[3] Most of these works that focus on adults, however, have been devoted to higher educational policy.
[4] As previously stated, policies have explicitly stated that the Chinese government seeks to create a unified nation of nationalities. This may be the reason that particular emphasis on attributes (such as language and religion) has been ignored.
[5] See Maslak (2014) for a detailed discussion of all parts of the model.

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12. INTENTIONS AND INFLUENCES OF TEACHERS' SCHOOL BASED CURRICULUM DEVELOPMENT IN PRIMARY AND SECONDARY SCHOOLS IN NORTHWEST CHINA

INTRODUCTION

Under the influence of the international trends in curriculum reforms and the policy intentions to implement quality education, the Chinese government has initiated a series of curriculum reforms in its basic education. This is the most radical changes in education in China in this century. One of its core changes is the redistribution of the power in curriculum decision making and curriculum management at the national, regional and school levels. It is a belief that school based curriculum development (SBCD) enhances the development of the uniqueness of each individual school, motivating the lifelines of the school activities, and supporting the trends of having more individualized learning opportunities for students (Huang, 2004; Xu & Wong, 2011). Successful and sustainable school based curriculum development requires a network of supporting factors and conditions, including administration support and effective dissemination, effective school leadership in curriculum development, teachers' recognition of the essential role of school based curriculum development and their capability, available time and access to resources. Among these all, teachers play a key role in school based curriculum development (Clandinin & Connelly, 1992; Skilbeck, 1998), and the commitment and abilities of the teachers are critical factors in the successful implement of school based curriculum development.

China is a huge country with a wide variety of regional differences in its development. The conditions of the schools and the quality of education between Northwestern regions and other coastal regions have huge differences. It has been the strategic priority of the national educational policies to improve the educational provision of the Northwestern areas and strike a balanced development between the Northwestern regions and the other regions in the country (National Medium and Long-term Educational Reform and Development Plan (2010–2020), 2010). In the last ten years, the Government has initiated a number of development projects such as 'Free Education in the impoverished regions', 'New Mechanisms for Protection of Financing Free Education in Rural Areas in Western regions', 'Re-engineering Project for the underachieved schools in Rural Areas' which have aimed at enhancing the educational provisions of basic education in Western

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regions. The amount of expenses on improving the educational provisions and conditions of the schools in the impoverished regions is about 1750 billion RMB in five years to 2018 (Dong & Zhang, 2014). From 2010, the Government has initiated a national project to enhance the quality of the primary and secondary teachers, aiming at developing teachers' quality in the implementation of the national policies of curriculum reforms in basic education in China. These policies have impact on developing teachers' quality but the lack of resources, the ineffectiveness in policy implementations and the lack of leadership have slowed down the pace of improving the educational quality in the Western regions (Wang & Zhao, 2010; Wang & Zhao, 2012). In the consideration of SBCD, what are the behavioural intentions of the primary and secondary schools' teachers? What are the factors that impact on their behavioural intentions? Understanding the intentions of the teachers and their attitudes towards SBCD would provide important data about the needs and beliefs of the teachers when policies are to be implemented in these regions.

LITERATURE REVIEW

Literature on SBCD in China has been numerous but the studies on SBCD in Northwestern regions are few. Some studies are critical about the suitability of the national curriculum for the students in rural areas in Western regions, leading towards lack of motivation and interests among students (Yang, 2013; Shen, 2014). From the students' point of views, the potential of SBCD is great but the current problems of lack of effectiveness in the implementation of the national curriculum have created a dilemma for the policy makers and educators in the region. The consensus seems to lead to a belief that there is no urgency for the implementation of SBCD (Duan & Tao, 2011). Though school heads have strong reservations about the need for SBCD in the region, there is still some study which investigates the implementation of minority cultures through SBCD, using SBCD as a standardized procedure in developing a school curriculum for the specific purposes of implementing minority cultures (Ma, 2004). Other foci are possible. For example, using SBCD to develop moral training for children, respecting the key role of teachers in curriculum decision making is also emphasized (Li & Luo, 2005).

The key to success in implementing changes in education in general and SBCD in particular relies on the attitudes and commitments of the teachers. Teachers' participation, their actions and beliefs include their understanding of SBCD and its key features. These are the important elements in understanding teachers' motivations and values towards SBCD. It is the focus of this paper to report on a study on teachers' behaviours and intentions of SBCD. Below are some outlines of the key concepts on teachers' behaviours and factors that influence the implementation of SBCD.

'Intention' means what one wants to achieve (Gove, 1961), the attitude and psychological inclinations of the one who reacts towards something. The behavioural intentions adopted in this paper mean the attitude and intentions of the teachers

who are engaged in SBCD activities. A model of measuring the level of concerns and the changing level (concern-based adoption model) during the implementation has been popular among researchers (Hall & Hord, 1987). This model has seven levels of concern, the lowest levels including awareness, information and personal. These could be considered 'behavioural intentions', which are changing when teachers are engaged in the curriculum change. The intentions of the teachers in the curriculum change could also be understood from the perspective of the objects of the intentions. These objects could be understood as teachers' personal willingness, social commitment to motivate others to participate, and commitment to support school policies of changes.

Metaphorically, seeds would not survive on rocks but need suitable soil and temperature for survival. Teachers need suitable conditions if a reasonable level of commitment and interests is to be maintained among teachers. Fullan (2001) observed the key features of change, the regional features of change and the external factors of change, and summarized 9 interwoven factors which affect educational reforms. They become good references in our work. In addition, Brown (1980) also indicated that considerations about benefits and costs due to the changes also become our basis of understanding teachers' intention of participating in SBCD. Based on the above considerations, 6 categories of intentions are outlined. First, the acceptance and value from the teachers' perspective over the innovation are important. Fullan (2001) points out that if the innovations are clear and of good value to teachers, the success rate is greater. Second, teachers would consider costs and time, risks and social cohesions among teachers. Third, teachers would consider the benefits to be gained from participation. Recognition and status gained from participation are essential motivations. Fourth, there must be benefits to students and other stakeholders like schools. Fifth, internal supports like leadership, collegial support and availability of resources are essential. Sixth, external supports like administrative and social expectations, or support from teachers' institutes and research units or parents.

RESEARCH METHODS

Questionnaires

In accordance with the research aims and core concepts, we have developed our questionnaires based on our literature review. The questionnaire was used and tested in 2009. The questionnaire was used in the current study in Northwestern schools. Some items were revised and the questionnaire was found suitable for use. Linker scales of one to five, from strong objection to strongly agreed are adopted. The questionnaire has 7 domains 43 items altogether. Independent variables include teacher intentions (5 items), while dependent variables include SBCD features (6 items), teacher costs (9 items), self benefits (6 items), benefits to others (6 items), internal support (5 items) and external support (6 items).

Sampling

Structural random sampling and structural sampling were adopted. In 2014, 16 primary schools, 7 junior secondary and 7 senior secondary schools were chosen. All teachers in each primary school completed the questionnaires but only 40 teachers from each secondary were randomly selected in the study because primary schools have less teachers. 900 teachers completed the questionnaire and 870 were valid for use.

Table 1. Teachers backgrounds (N = 870)

Categories	
Average age	40.0 years
Experience of teaching	14.3 years
Gender	
Male	44.7%
Female	55.3%
Rural	44.3%
Urban	55.7%
Levels of Schools	
Primary	35.4%
Junior secondary	35.1%
Senior secondary	29.4%
Highest Qualifications	
Higher Institutions	15.0%
University majors	80.2%
Postgraduates	4.7%
Ranks	
not decided	6.5%
low	33.0%
middle	44.4%
high	16.9%

FINDINGS

Basic Information from the Questionnaire

The reliability of the questionnaire is acceptable (Table 2). Thecronbach's α is 0.936 for the questionnaire, and individuals' cronbach's α are between 0.703–0.848, showing the reliability of the questionnaire and the items are acceptable. The average mean of 'intention' is 3.68, close to 'very agreed', indicating that the teachers had clear intention to participate in SBCD. On 'benefits to others', the means are higher than the average mean of 'key features of the innovation', 'self benefits', 'internal

Table 2. Means, standard deviation, reliability (N = 870)

	All items	*Key features*	*Costs*	*Self benefits*	*Benefits to others*	*Internal support*	*External support*	*Intention*
All	.936							
Key Features	.876***	.713						
Costs	.617***	.445***	.703					
Self Benefits	.821***	.655***	.427***	.748				
Benefits to others	.776***	.683***	.436***	.558***	.791			
Internal support	.803***	.670***	.338***	.600***	.515***	.777		
External support	.757***	.629***	.286***	.617***	.389***	.695***	.844	
Intention	.757***	.640***	.458***	.561***	.711***	.492***	.340***	.848
means	3.36	3.28	3.57	3.23	3.63	3.27	2.87	3.68
SD	.5169	.6270	.4400	.6963	.7253	.7824	.8298	.7352

*** $p < .001$ (two-tailed test)

support'. The lowest is 'external support' while the highest is 'costs'. All these general findings showed that the teachers in the study in Northwestern regions do not support teacher participation and the conditions for change are not favourable. The correlations between teacher attitude and other factors are positive and significant statistically.

Teacher Intentions of Participation

In order to better understand the 'behavioural intentions' of the teachers regarding their participation in SBCD, the means and standard deviations of each item are listed below.

Table 3. Means and standard deviation of intention items

	Means	*SD*
I am willing to learn about school based curriculum development	3.72	0.891
I am willing to enhance my capability in developing SBCD	3.67	0.904
Under current conditions, I am willing to participate in SBCD	3.66	0.971
I am willing to support actively SBCD	3.72	0.934
I am willing to recommend SBCD to my colleagues	3.69	0.887

These findings show that teachers are willing to participate in SBCD and most teachers support the implementation of SBCD in their own schools. They are willing to offer support to their colleagues as well.

Factors that Affect Teacher Intention

Multiple regression analysis shows that, the regression model is statistical significance by stepwise regression when behavioral intentions as dependent variable and independent variables covered benefits to others, key features, cost, self-benefits, external factors and internal factors. ($F = 208.306$, $p < 0.001$). The total effect of six items can explain 58.5% difference of behavioral intentions. The variance inflation factor is less than 4, can determine the respective variables between multicollinearity is not serious (Table 4).

It is worth noting that external factors are correlated with teacher intentions negatively. First, external personnel and institutions have rarely offered support to the teachers concerned (mean 2.87), indicating that teachers do not have enough support. This adverse situation has weakened the intentions of the teachers to participate in SBCD activities. Second, theories and procedures of conducting SBCD activities are difficult to many teachers. Asking teachers to translate the theories and procedures of conducting SBCD activities that were learned in training programs offered by

Table 4. Regression results of behavioural intentions and influence factors

	B	*t*	*Sig.*	*VIF*
Benefits to others	0.429	13.525	0.000	2.085
Key features	0.272	6.162	0.000	3.007
Cost	0.189	4.500	0.000	1.340
Self benefits	0.187	5.482	0.000	2.207
External factors	–0.162	–5.472	0.000	2.373
Internal factors	0.095	2.997	0.003	2.434

external training agencies is a very difficult task. On one hand, teachers normally follow their own interpretation with the assistance of their colleagues to conduct SBCD activities. If they were asked to follow 'standard' and 'scientific procedures' in their practices, they would feel distant and alienated. On the other hand, the trust between teachers and educational experts becomes problematic. Experts complain the failure of implementation is due to the lack of interests, lack of understanding, and lack of skills on the part of the teachers. Teachers complain that experts are 'idealistic' and 'too theoretical'. Their suggestions are not practical. Other factors that deter teachers from participating in SBCD activities include teachers' overload with work, lack of commitment to research and development activities.

To deepen our understanding of the factors that affect teachers' intention in the participation of SBCD activities, it is necessary to look at the findings on 'key features', 'cost', 'self benefits', 'benefits to others', 'internal factors' and 'external factors'.

Benefits to others. The regression results on Table 4 show that 'benefits to others' is the most important factor influencing teachers' intention of participating in SBCD activities. Average in Table 2 is 3.63, showing that teachers believe their participation would bring benefits to students and to the policies on changes. On other items, teachers' ratings are high, showing that they believe their participation would bring more meaningful activities and benefits to students, motivate their students, and ameliorate the individual differences in student achievements, helping students to solve practical problems as well (Table 2).

Key features. Table 2 shows that teachers' attitude towards SBCD innovations is not very positive and active comparatively speaking (mean 3.28). About SBCD innovations, teachers believe they have good value (mean 3.74). However, teachers believe the innovations are lack of clarity (mean 3.25), and of great difficulty (mean 2.90). These data show that teachers in general feel SBCD activities pose difficulties to their work and they see SBCD as challenging. However, teachers are positive about the practical values of SBCD activities (mean 3.28).

Costs. Teachers would consider the costs and returns of participating in SBCD activities. Considerations may include the practical values of the innovations to individuals, huge efforts and time being invested. There are risks as well. Participating in organizing SBCD activities may be considered a 'deskilling' process and may incur risks in damaging collegial solidarity. Most teachers show that they spend a lot of efforts and time on SBCD activities, preparing and designing new materials for learning and teaching (means on three above 3.59). "Deskilling" is an interesting item. It would normally be considered that teachers gain professional skills when they participate in SBCD activities. Here, teachers are worried that when they participate in SBCD innovations, using approaches of other people, they would be considered unprofessional and their subject skills are losing (means 3.79 and 3.81). This may be interpreted as an indicator of lack of confidence among the teachers in the region. Teachers in the study also show that they would have strong reservations about working with colleagues that they are not willing to (mean 3.78). This finding is shared with another study (Wang, 2011).

Self-benefits. Teachers find participation in SBCD activities may not be rewarding (mean 3.23). However, the ratings on items have shown some differences in thinking. In general, teachers believe that participation would make their teaching more interesting, receive more resources, receive higher recognition and status, and allow themselves to join the decision making teams. However, they do not believe participation would bring financial benefits and promotions to them (mean 2.62), showing teacher participation would not considered bringing financial or promotion benefits to the participants.

External supports. SBCD is a great challenge to primary and secondary school teachers because there is little well established curriculum development tradition among teachers in the school system in these regions. Under these circumstances, training and development rely on teacher training institutions and universities. However, the findings show that ratings are low in this area (mean 2.87). Only one item, educational evaluation mechanism, indicates some positive impact on SBCD. Other external factors such as parents, normal universities, experts and communities, have negative ratings below mean score of 3.00. This means shows that the structure of professional training activities has not been well coordinated and planned in this region.

Internal supports. Supports from administration and colleagues in the same school are essential. However, the mean score on this factor is 3.27. Scores on items show some concrete information about what may be happening in the schools. Ratings on 'principal leadership' and 'internal communications' are quite high (means 3.57 and 3.51 respectively). However, ratings on 'regular professional meetings', 'commitments' and resources are rather low (means 2.99, 3.15, and 3.14). Though the ratings on principal leadership are positive, the problems with 'innovations being

imposed from outside' and 'effects of a selective system' impose problems on the implementation of SBCD innovations.

Impact of Teacher Backgrounds on Other Factors

On teacher intentions. One-way Anova was conducted and there is no significant difference between gender, qualifications, ranking and experience on teacher intentions. This may show that teacher characteristics do not have effects on the intentions of the teachers to participate in SBCD activities or not. However, educational levels and school locations have significant effects on teacher intentions. Primary level, junior secondary level and senior secondary level have showed significant differences ($F = 6.378$, $p < 0.01$), primary level is higher than junior secondary, and junior secondary is higher than senior secondary. This may be due to the lack of examination pressures on primary levels and therefore, primary schools are likely inclined to experiment SBCD innovations while senior secondary levels are restricted by external examinations. Locations of schools have significant effects on teacher intentions. Urban schools are more likely to adopt SBCD approaches than the village schools ($F = 3.658$, $p < 0.05$). This shows school based professional activities which are claimed to be key features of providing effective educational experiences for children such as SBCD have not been adopted in the samples. Therefore, Northwestern regions may lack behind the schools in urban and coastal regions in terms of teacher perceptions about the professional functions of SBCD activities.

Correlation between independent variables (gender) on factors on teacher behavioural intentions. The variable gender has significant effects on 'cost to others' ($t = –2.081$, $p < .05$), very significant effects on "internal support' ($t = –4.381$, $p < .001$). Female teachers tended to be more sensitive to the resources available to the participating teachers and the potential benefits of SBCD innovations on students and schools.

The effects of differential qualifications on 'key features', 'costs', 'internal support' and 'external support' were significant. The rating of teachers with higher educations was higher than teachers with bachelor degrees. The lowest rating came from teachers with postgraduate degrees. The effects on 'costs' were significant between postgraduates and other two categories of teachers. It would be interesting to pursue further studies on the reasons why higher qualifications had effects on their ratings on the four factors that affected teachers' behavioral intentions on participation in SBCD innovations. However, levels of experiences did not seem to have strong differential effects on the ratings of all six factors (Li & Shui, 2010). This needs another study.

Rankings had significant effects on ratings on 'key features', 'self-benefits', 'internal support' and 'external support'. Novice teachers without proper rankings in the sample seemed to be more concerned about new opportunities arising from

participation in SBCD activities. They were curious, had greater desire to learn, and needed more efforts to ensure recognitions from their schools. They felt the urgency of self-professional development and enhancement. They were more aware of the need for seeking internal and external support. For senior teachers, normally having more than 15 years of teaching experience, they were at the top of the career ladder and were likely to be tired of the additional workload incurred if they participated. These teachers were likely to be resistant to having additional work or unlikely to accept new tasks.

Levels of education seemed to have significant impact on their considerations about participating in SBCD activities except 'costs'. Ratings from the primary teachers were the highest and the second was from junior high teachers. Our interpretation is that the pressure of examination results on students and teachers was much higher in senior high schools than in the primary schools, and therefore, ratings from the primary teachers on self-benefits and benefits to the pupils were significantly higher.

Under the positive working environment, primary teachers were willing to participate in SBCD innovations and were likely to see the results from the changes. Curriculum flexibility is greater to them than to the senior high school teachers. SBCD innovations that are unlikely to have direct and immediate impact on examination results do not have room for further development in senior high schools.

Locations of the schools in the sample had great effects on the six factors on teacher behavioural intentions. Effects on 'key featuers', 'self benefits', 'benefits to others' and 'internal support' were all significant ($F = 10.204, 7.507, 8.468, 15.687$, $p < .001$). On 'costs' and 'external supports', the effects were even the greatest ($F = 4.461$, $p < .01$). Urban schools received higher ratings than rural schools, showing the more conducive environments for teachers to conduct SBCD activities.

CONCLUSIONS AND SUGGESTIONS

Study on teachers' intentions of school based curriculum development in primary and middle schools in Northwest region is very rare, this research can provide an important knowledge base for us to understand the intentions and influences of primary and secondary school teachers participate in school based curriculum development in Northwest area, so as to contribute to the development of school based curriculum in the area. The current study reported briefly in this paper shows that teachers in Northwest regions were positive with SBCD innovations. The majority of the teachers supported SBCD activities in their schools and were willing to join the curriculum development teams. They also supported their colleagues to participate in SBCD activities and used the opportunities for self-enhancements. These observations were in contrast with the views from the principals of Northwest regions who reportedly felt the strong limitations of the region and the lack of energy and positive conditions for curriculum development initiatives like SBCD (Duan & Tao, 2011). However, teachers in the study showed great willingness to learn and to

participate. Possibly the strong desire to learn and to participate is the greatest asset that policy makers should take into consideration when planning for innovation is engineered.

All six factors affected teachers' intention in this study, and the factor of 'benefits to others' is the most influential one. The negative one is 'external support'. All characteristics of the teachers had effects on the six factors that constitute the causes of their intention on participations.

Many studies have pointed out the key feature of successful implementation of new changes and show that each individual teacher has a 'comfort' zone. Participation in SBCD innovations causes teachers more workload and time. It brings new challenges to teachers as well. Changes bring fear and potential negative effects on their own personal psychology. This study supports this view and the effect of 'costs' affects the intention of the teachers towards participation in SBCD activities. Therefore, policy makers need to take this aspect of teachers' concern into their policy planning, seeking ways to bring teachers away from the comfort zone. SBCD has long term effects on student development and requires continuous efforts on the part of the teachers, schools and policy makers to sustain SBCD changes and innovations.

First, empowering teachers and enhancing teachers' capacity. Teachers are the key to SBCD innovations. Developing teachers and building teachers' capacity in SBCD innovations will ensure the quality of the pedagogical innovations that are generated from SBCD activities. Experts should also translate their expert knowledge in language which is comprehensible to most teachers, giving teachers a macro view about the complexity of the directions of the curriculum changes as well as the operational procedures of conducting and evaluating SBCD innovations at school levels. Second, greater efforts and more resources should be invested in teacher professional development activities based on teacher needs. Training approaches could be designed specifically to cater for the needs of the teachers and allow teachers to experiment the new changes so that they can internalize new knowledge and operational procedures more effectively. Third, the school based professional training programs should be well recognized publicly as a form of teacher training channels (Li, 2001). Schools should be encouraged and supported to develop their own teacher development programs based on the key features of the schools and their students. School based research and development activities should become a key structure in schools as agencies of changes based on school and teacher needs.

Second, enhancing the principal leadership. SBCD requires a new type of leadership among principals. Principal leadership becomes a key in the implementation of new policies on educational changes. Reducing administrative control and supervision is the first priority and principals should play a key role in curriculum leadership. Third, more resources for principals and schools are necessary, for example, more

direct funding, more collaboration with experts. Preparing a team of principals with good quality in education is the priority.

Third, enforcing action research. SBCD and action research share many similarities. Action research ensures that the quality of school education should be practical as well as reasonable. Action research activities require the collaboration between experts and frontline teachers, ensuring that the processes would enhance teacher rational knowledge on one hand and curriculum improvement on the other hand, building an experimental model of pedagogical collaboration. Developing teachers' curriculum leadership in SBCD activities becomes a concern of many policymakers in recent educational developments (Law, Wan, Galton, & Lee, 2010).

Finally, government education departments must be aware of the key role of SBCD and create conditions for its development. The investments in the past few years in Northwest regions have been significant in the direction of moving from the quantitative consideration of ensuring access to education to the qualitative consideration of guaranteeing a good quality education for all children. This change in policy should be the concerns of the administration in the regions. How to manage the change properly should be the key strategy of those who are in the policy making level. They should also be well informed of the key features and importance of SBCD in the enhancement of educational quality in Northwest regions.

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13. RESEARCH ON MATHEMATICS TEACHING EXPERIMENT OF "SITUATED CREATION AND PROBLEM-BASED INSTRUCTION" IN MIDDLE AND PRIMARY SCHOOLS

INTRODUCTION

In teaching mathematics in primary and secondary schools, teachers usually devise mathematical problems for students to solve, such as mathematical proof, algebraic operation, numerical inspection, and others. These problems, which are characterized by clear statements and definite targets, are intended to help students gain mastery of mathematical knowledge and skills. However, these problems are only a part of the general scheme of mathematical activities. Mathematics, as applied in a science subject or a mathematics activity, consists of two aspects: "problem posing" and "problem solving." Thus, the "problem" is regarded as the heart of mathematics, through which the "problem-solving" object and mathematical creativity which can be discovered.

In this regard, the Ministry of Education promulgated the "*Full-time Compulsory Education Mathematics Curriculum Standard (experimental draft)*" (MEPRC, 2001) and the *"Senior High School Mathematics Curriculum Standard (experimental draft)"* (MEPRC, 2003). Both drafts specified the curriculum target: students should learn to pose mathematics problems, understand them, and solve them from a mathematical perspective.

However, problems are inherent in a real mathematics classroom environment. On the one hand, teachers' classroom questions are high in density and low in quality, which highlight the "lack of interactive teaching." On the other hand, the learning method, in which learning to "answer" instead of learning to "pose" is the norm, hinders the development of the student particularly in the aspects of problem consciousness and innovation ability. Thereupon, when problem posing has become the important component in a mathematics curriculum, and when experimenting, observing, exploring, and conjecturing have become as important as the logic and abstraction as mathematical thoughts and methods, people become focused on a common topic: "Why do our students rarely ask questions?"

Over the past twenty years, teaching research in mathematical problem posing has attracted the attention of mathematics educators locally and abroad (Xia, 2005).

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 247–260.

The main reason for this phenomenon is the reflection of the current situation on the teaching practice of problem solving as well as the growing need for mathematical initiative talent of a society that emphasizes knowledge and economics. The present research focuses on the process of instructing and encouraging students to find and pose problems with the help of their problem awareness skill. Consequently, the researchers discuss the teaching methods and strategies of "problem posing" from different perspectives, through which the transition from curriculum ideas to teaching reality can be obtained as one of the abundant resources these methods and strategies offer.

However, the research on the "problem posing" in China is in the early phase. "Problem posing" was only listed in the mathematics curriculum and became an important element in 2001, when the *National Elementary Education Mathematics Curriculum Standard* was promulgated. At present, teachers lack deep understanding of the nature of teaching and its basic problem of dealing with the relationships among problem posing, creating situations, problem solving, teaching goals, and others. As a result, the problem-posing approach is widely accepted by teachers, but only a few can truly teach students to ask questions (Zhang, 2002).

Guizhou is a multi-ethnic province located in the western region of China. For a long time, the basic level of education lags, especially basic education development in rural areas because of the constraints of natural, geographical, socio-economic, and other factors. In terms of mathematics education, teachers are skilled at imparting of knowledge, but they lack the necessary proficiency to determine the developmental problems of students in terms of consciousness and intelligence capacity. Although many factors cause this phenomenon, it is important to focus on the inability of teachers to adapt to the development of basic education needs in terms of professional consciousness, knowledge, and skills. Transforming problems from ideas in the classroom curriculum into reality becomes one of the urgent problems in the implementation of the Curricular Reform of Basic Mathematics.

Generally, Chinese students do not have the learning experience that can guide them in proposing mathematics problems. Moreover, they have low awareness of these problems. To address this situation, we conduct a research on the mathematics teaching experiment. Started in 2001, the experiment involves situated creation and problem-based instruction (SCPBI) in primary and secondary schools as stipulated in the promulgation and implementation of national standards on elementary education curriculum for mathematics.

Theory cannot exist without practice, as practice cannot exist without theory. Thus, coupled with other theories, the Sternberg's triarchic theory of intelligence is the foundation for our research. According to this theory, intelligence can be classified into three levels: analytical intelligence, creative intelligence, and practical intelligence. Analytical intelligence involves the capabilities of analysis, judgment, evaluation, comparison, contrasting, and testing. Creative intelligence includes creation, discovery, production, assumptions, and imaginative capabilities. Practical

intelligence covers practice, use, application, and realization capabilities. Unlike traditional intelligence theory, the triarchic theory of intelligence not only emphasizes IQ, but also situational intelligence. The latter refers to the ability of adapting to and transforming the real-world environment and deriving useful resources from this environment. By contrast, the traditional intelligence theory focuses on the development of academic intelligence, pays attention to analytical thinking, and emphasizes students' intellectual development and academic performance. The triarchic theory of intelligence considers that evaluating intelligence is ineffective without analysis of the situation. Often, the evaluation will obtain the wrong conclusions. The triarchic theory of intelligence attaches considerable importance to the role of the context of intelligence and emphasizes the cultivation of intelligence in the situation, especially the creative intelligence and the practical intelligence. Establishing the situation is the best strategy for creative intelligence. In this situation, students can learn scientific knowledge from real problems, develop logic, put forward their own unique insights, and solve real-life problems. According to Sternberg's theory, the situation is the premise for the cultivation of the skill to pose problems. The absence of a reasonable problem situation leads to an unfavorable development of students' creative and practical intelligence. In this situation, the teacher fails to reflect on whether to provide students an environment with which to base their propositions, and can only ask the students to be adept in "posing problems."

The schema theory also provides theoretical support for our research. Rumelhart believes that the schema theory is a theory of human knowledge, that is, it is concerned with the knowledge to be characterized and the application of the theory of knowledge. Modern psychology considers that the knowledge we acquire interacts with the environment. Under each process of acquisition and interaction, the knowledge is stored in the brain with a certain form. Storing knowledge is also called representation of knowledge. Modern psychology thinks that the knowledge in the brain cannot be stored independently; it is always stored in relation with other knowledge, and only through the network system stored can the knowledge be effectively extracted. Thus, using the schema theory to guide mathematics teaching and context setting is important. In traditional education, students do not consider context positively. Thus, in order to activate students' prior knowledge schemata and spontaneous exploration of the desire for knowledge, teachers need to set up situations, such as living situations, story contexts, operational situation, riddles, games, and other conditions. Teachers should set the situation in the teaching process to help students activate prior knowledge, which effectively links new knowledge with existing knowledge, and help students learn new knowledge in a meaningful way.

In addition, Sternberg's dialogue teaching, Ausubel's meaningful learning theory, and Freudenthal's work all propose that "situational problem is the platform of mathematics education." These theories suggest that "mathematical situation"

can provide a theoretical basis for students' mathematics learning and a wealth of information by transforming the teaching ideas in the curriculum into reality that students can learn from.

EXPERIMENTAL OBJECTIVES AND SUBJECTS

First, the unbalanced phenomenon between "problem posing" and "problem solving" in the mathematics education of Chinese primary and secondary school students will be analyzed and resolved. Second, teaching concepts and teaching behaviors that teachers are concerned with in relation to students' problem-solving ability and regardless of their ability to pose problems should be avoided. Third, the students' ability to coordinate the development of posing problems, understanding problems, and solving problems from a mathematical perspective should be promoted. Meanwhile, through the teaching of "setting situations and posing problems" in primary and secondary schools, we intend to inspire students to learn mathematics, let them gain experience in and the skill of "problem posing" to improve their ability to learn the subject. As a result, "problem posing" can be encouraged in line with the reform of the curriculum for basic education in China, which contributes to the transformation of the curricular idea into teaching reality.

The subjects of the study comprise 523 junior students from the Wanquan Secondary School located in Guiyang (the capital city of Guizhou Province) and from three different junior high schools located in the urban areas, towns, and urban-rural fringe areas of Xingyi (Buyi and Miao Autonomous Prefecture in Southwest Guizhou). Each experimental school has established experimental and comparison classes in the same academic level.

EXPERIMENTAL CONTENT AND MEASURES

In view of unprofessional implementation of mathematics education in China, the mathematics teaching model of "creating situation-posing, problem-solving, and problem-applying mathematics" called "situated-creation and problem-based learning" (SCPBI) is proposed.

For quite a time, much attention has been paid to basic knowledge and skills in mathematics instead of innovative consciousness and practical ability in the mathematics education of Chinese primary and secondary school students. This situation leads to the gradual emergence of contradiction and problems in mathematics learning. For example, students get accustomed to "learning to answer," and lack the skill for "learning to pose" (Huang, 2002). Their problem consciousness is gradually weakened (Zhu & Zhan, 2002), and their ability to propose problems becomes low (Nie & Wang, 2000).

The situation is exemplified by many cases of malpractice in the traditional mathematics education in China and characterized by the inability of students to propose problems and that the slight attention paid to the result rather than the

process. To change the situation, the research class directed by Lü and Wang (2000) has developed a mathematics teaching model, SCPBI, for primary and secondary schools (Figure 1) (Lü & Wang, 2001). The model aims to train innovative consciousness and practical ability of students.

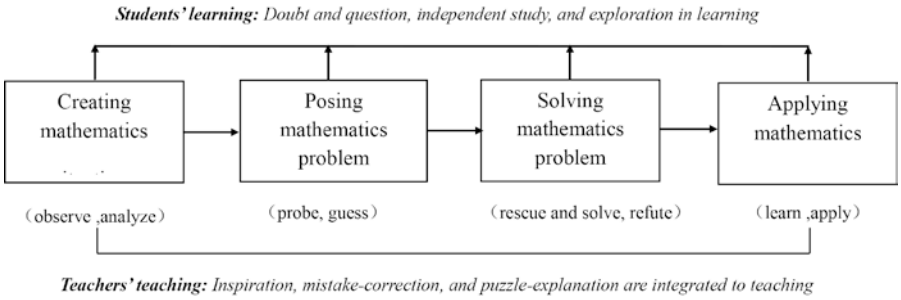

Figure 1. Mathematics teaching model of "SCPBI" in primary and secondary schools

The basic goal of SCPBI is to train students to gain the ability to pose problems toward the promotion of their ability to coordinate the development of problem posing, problem understanding, and problem solving from the mathematical perspective.

SCPBI has four basic links: creating situations, posing problem, solving problem, and applying mathematics. Creating mathematical situations is the prerequisite of the process. Mathematical problem posing is the core, whereas mathematical problem solving is the purpose. Lastly, mathematical application is the home to which knowledge returns to.

SCPBI refers to a kind of teaching driven by "questions or problems." To achieve its basic goal effectively, we consider stimulating students' problem consciousness as the logical starting point and the mainline. Specifically, the mathematics material concerned is provided to students through situations, and subsequently, students' curiosity and knowledge-seeking desire can be stimulated. Through observing and exploring mathematical situations, students can find, pose, and solve mathematical problems under the guidance of teachers.

Since 2001, the experimental study related to SCPBI has been conducted in some primary and secondary schools in Guizhou Province by taking "using the experience of a selected spot (unit) to promote the work in the entire area, step-by-step promotion, and rolling developing" as the guiding ideology. To reflect the differences in mathematical thinking and learning ability of students from various geographic and economic situations, this experiment has been conducted in Guiyang (the capital city of Guizhou Province) and Xingyi (the main city of Southwest Buyi and Miao Autonomous Prefecture of Guizhou). Six experimental schools were first chosen. Subsequently, 11 experimental schools were added. The selected schools

comprised five primary schools and one secondary school in the downtown area of Guiyang, eight primary schools in downtown Xingyi, and three secondary schools in the suburbs of Xingyi. The subjects ranged from first-grade pupils to seventh-grade students for a total of 2,016 students studying in 34 experimental classes, 24 of which were primary school classes and 10 were secondary school classes. As the experimental study progressed, the number of the experimental schools and classes increased; thus the area of the experiment widened.

Increasing and enhancing teachers' knowledge and skills in teaching "problem posing" and promoting the effective development of the SCPBI experiment. How do we improve mathematics teachers' knowledge and technical skills of "problem posing," especially in rural areas? This question is related to teacher education, and a realistic problem that needs to be solved immediately within the process of putting mathematics curriculum standards into practice. In rural areas, the opportunities of mathematics teachers for professional development are generally limited. Therefore, the *School–based teaching research based on interscholastic cooperation in some regions* (*ICR type of school-based teaching research*) was launched in combination with the SCPBI experiment implemented in the remote rural areas of Guizhou. The research aims to improve experimental teachers' knowledge and technical skills of "problem posing." Specifically, under the guidance of experts, soliciting the cooperation of schools in some regions is the foundation, the SCPBI experimental study is the platform, and the class example is the research object. In these experimental schools, all mathematics teachers study together with the general mathematics teachers in an attempt to master the ability at the shortest time possible (Xia & Lü, 2006).

At present, ICR-type school-based teaching research has made teachers in rural areas aware of the meaning and method of "problem posing," the essence of SCPBI, its method and strategy, the assessment on the ability that students pose mathematics problems, and the reasons for them to imbibe the related teaching knowledge and skills. Based on the extension of ICR-type school-based teaching research in other areas, the contradiction that needs specialized instruction was effectively alleviated. Therefore, the extension has promoted the effective implementation of the SCPBI experiment.

Teachers play the guiding role in promoting the development of students' problem consciousness and probing ability. A teacher initiates, maintains, and promotes study behaviors (Zhong, Cui, & Zhang, 2001). SCPBI, which can effectively promote the development of students' problem consciousness and probing ability, depends on the teachers who play the guiding role in full teaching. Therefore, the students' main status and teachers' instruction role should be emphasized. In classroom teaching, teachers can adopt all kinds of teaching methods, among which heuristics is the center. Moreover, relevant teaching strategies are chosen and used in a prescribed manner according to the experimental progress and the basic situation of students.

In the initial period of the SCPBI experiment, encouraging students to pose questions was the basic teaching strategy. Students were taught to tell the difference between the questions, which was subsequently used to inspect whether they understand the true meaning of the problem. Teachers helped them clarify the constitution of the "problem," determine the reason why people need to pose problems, and identify the importance of the "problem," among others. Through demonstrative inquiry, teachers attempted to enable students to master basic skills and the methods of "problem posing" in observing and imitating as well as to enhance their self-confidence in learning mathematics through teaching activities that involve posing problems.

In the middle and later periods of the SCPBI experiment, teachers used flexible teaching strategies, including teacher-led learning and students' self-learning, according to the different situations of students. The strategies of teacher-led learning were as follows: setting up the mathematical situation, leading the problem posing, discussing and exchanging ideas, promoting cooperative study, paying attention to problem solving and mathematical application, assigning situational tasks, carrying out mathematical activities, attaching importance to intensive lecture, guiding the thinking process, paying attention to reviewing and summarizing, and developing meta-cognition. The strategies of students' self-learning involved analyzing the situations in a focused manner, observing the situation carefully, extracting mathematical information, pondering on the information earnestly, questioning the information boldly, posing mathematical problems, interactively probing the problems, resolving the mathematical problems actively, developing a special study and a topic study, exercising self-examination profoundly, and reviewing and arranging knowledge systematization and modularization (Yang & Wang, 2004).

BASIC EXPERIMENTAL STUDY RESULTS

Experiment Has Stimulated Students' Interest in Studying Mathematics

Arousing interest in learning mathematics helps ease the anxiety of students and enhance confidence and self-awareness in probing the problems (Li & Lü, 2004). To test the effects of SCPBI on students' interest in mathematics, we chose 327 students from B Junior High School, S Junior High School, and Z Junior High School of Xingyi in 2003. Among them, 101 students were from experimental classes, whereas 226 students were from control classes. A comparative study was conducted on the students' interest in mathematics in both experimental and control classes. The questionnaire was used as the tool (Table 1).

The table shows that 84.1 percent of the students from the experimental classes have expressed their interest in mathematics. The result reveals in increase because only 72.5 percent shared the same view in the investigation before the SCPBI experiment. However, this proportion only represents 60.2 percent of the students from the control classes. After the double overall rate of hypothesis testing, SCPBI

Table 1. Percentage of interest in mathematics in the experimental and control classes

Students	*N*	*Percentage of students interested in mathematics*	*Z*
Experimental class	101	84.1%	4.35
Control class	226	60.2%	

demonstrated highly remarkable effects on students' interest in learning math ($|Z| = 4.35 > 2.58$, $P < 0.01$).

Students' interest in mathematics (classified as "interested" and "uninterested") and its relative ratio are subject to binomial distribution, and min (np, nq) = min (73. 28) = 28 > 10. Therefore, we proceeded with the single overall rate of hypothesis testing on the experimental class students' interest in learning mathematics. The results show that SCPBI has extraordinary effects on students' interest in learning math ($|Z|=2.64 > 2.58$, $P < 0.01$).

Experiments Have Enhanced the Students' Abilities to Pose Problems

"Problem posing" is the core of SCPBI, and improving students' abilities to pose problems is the basic goal. After two years of experimental study, a comparative test was conducted on the students' ability to pose problems. All the subjects were from the ninth grade of F Secondary School in Guiyang and S Secondary School in Xingyi (Experimental School I and Experimental School II, respectively) (Lü & Wang, 2006).

Two different types of mathematical situations were provided to the students in the test: the students were requested to pose as many mathematical problems as possible according to both algebraic content and geometric content as the situations.

Algebraic situation: Mother gives Xiaohong 20 Yuan, which can allow her to buy study materials. In the store, the price of a notebook is 3 Yuan and the price of a ball pen is 2 Yuan…

Geometric situation: Connect the midpoints of each side of a regular triangle, form a new regular triangle, and repeat this process with the new triangle formed (Figure 2).

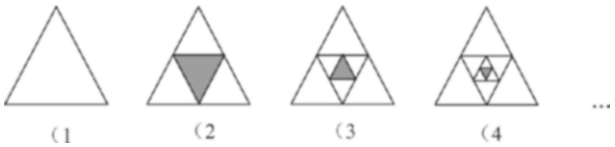

Figure 2. Connecting the midpoints of the sides of a regular triangle

Based on the analysis of students' mathematical responses in the task of posing problems, the types of the problems posed by students were classified (Table 2).

Table 2. Typical mathematical responses in the task of posing problems

Problem type	*Problems posed according to an algebraic situation*	*Problems posed according to a geometric situation*
1st type	Xiaohong bought five notebooks and five ball pens. (General statement)	What is the area of the partial space denoted by the shadow in chart (2)? (Unsolvable mathematics problem)
2nd type	How much did Xiaohong pay for six ball pens? (Simple mathematical problem)	How many triangles are there in chart (2)? (Simple mathematical problem)
3rd type	If more than five notebooks are bought, then the price will be 90% of the initial cost. What is the maximum number of notebooks that Xiaohong can buy with 20 yuan? (Development problem)	When repeating the process for n times, what is the ratio between partial perimeter denoted by the shadow and the perimeter of the regular triangle in chart (1)? (Inquiring problem)

The students' ability to pose problems can be classified into five levels:

Level I: More than six different mathematical problems are proposed, in which at least two problems belong to the third type.

Level II: More than six different mathematical problems are proposed, in which at least one problem belongs to the third type and at least one belongs to the second or first type.

Level III: More than four different mathematical problems are proposed, in which at least two problems belong to the second type or at least one belongs to the second or the first type.

Level IV: More than two different mathematical problems are proposed, in which at least one or two problems belong to the first type.

Level V: No mathematical problems are proposed.

Levels of problems proposed by students in the experimental class and the control class are summarized in Table 3. Approximately 70 percent of the students in experiment class have formulated problems on the first level, which is significantly better than those of the control class. The result shows that SCPBI has extraordinary effects on students' ability to pose problems.

Table 3. Levels of problems proposed by students in the experimental and control classes

School	*Class*	*Levels on problems proposed*				
		Level I	*Level II*	*Level III*	*Level IV*	*Level V*
Experimental school (1st)	Experimental class n = 47	74.47%	8.51%	17.02%	0	0
	Control class n = 32	25%	37.5%	37.5%	0	0
Experimental school (2nd)	Experimental class n = 69	68.12%	17.39%	14.49%	0	0
	Control classn = 65	14.29%	20%	60%	5.71%	0

The Development of Promoting Students' Ability to Learn Mathematics

To check the SCPBI functions on the students' ability to learn mathematics, we established one test that conformed to the national mathematics curriculum standard. For two years, the comparative investigation and analysis of ninth-grade students of secondary schools included 61 experimental class students and 57 control class students. With regard to the principle of inspecting the students' basic knowledge and attaching importance to the examination of students' ability, items on mathematical application and capability were added to the test papers. Simultaneously, foundational, comprehensive, and practical natures were given dual attention.

The distribution of the test results is revealed in Figure 3. The two distribution pictures have approximately similar normal distributions. Exam passing rate is 62.3 percent in the experimental class, whereas this rate is only 56.1 percent in the control class. Outstanding rate is 18 percent in the experimental class, whereas it is 14 percent in the control class. The highest score is 96 in the experimental class, whereas it is 91 in the control class. The main scores range from 70 to 80 in the experimental class, whereas the main scores range from 60 to 70 in the control class.

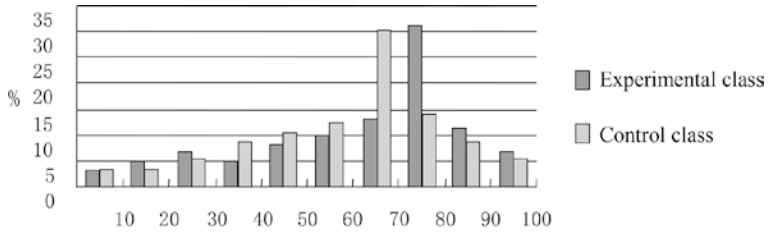

Figure 3. Distribution of the test results

The results of the test that was carried out in the experimental class and the control class show that SCPBI has extraordinary effects on the students' ability to learn mathematics ($|Z|=2.06 > 1.96$, $P < 0.05$).

CONCLUSION AND DISCUSSION

The results of the research indicate that SCPBI has significant effects on students' interest in learning math, ability to pose problems, and ability to learn mathematics. From the authors' point of view, the reasons for these effects are as follows:

First, the classroom instruction environment that is driven by "problems" has been provided by SCPBI. The environment has promoted the students' development on problem consciousness and allows for probing into their mathematical ability. Furthermore, through creating situations and teaching guidance, teachers have motivated the students not only to propose their own questions but also to construct their own problems, including simple questions and exploratory problems. Consequently, students are required to solve not only well-structured problems, but also ill-structured problems. In addition, problem posing is performed throughout the process of finding the solution to the problem.

Second, in the process of implementing the SCPBI experiment, specialized instruction and ICR-type school-based teaching research have changed teaching concepts and the behaviors that focused on developing students' ability to solve problems regardless of their ability to pose problems. Specialized instruction and ICR-type school-based teaching research have also improved the teaching knowledge and technical skills of mathematics teachers in terms of "problem posing" effectively. Thus, the teachers have learned not only how to approach mathematical problems or "teach" students to solve problems, but also how to teach students to pose problems. This requirement has provided the essential condition for the effective development of the SCPBI experiment.

Third, teachers have become capable of choosing and using relevant teaching methods and strategies in a targeted manner. Thus, they have obtained the skill to guide and promote the formation of the classroom instruction environment that is driven by "problems," which plays a key role in achieving the basic goals of SCPBI effectively.

The research was based on training students in terms of problem consciousness and the ability to pose problems. As a result, the pattern of mathematics teaching model (SCPBI model), the teaching aim of which is to train students in terms of innovative consciousness and practical ability, has been highlighted. In the experiment, effective approaches and methods of improving teachers' knowledge and the technical skills in "problem posing" were probed. In addition, choosing and using the teaching methods and tactics of "problem posing" for teachers were discussed and experimented on. The results show that the contradiction between "problem posing" and "problem solving," which has been existing in the basic mathematics education in China, can be solved practically. Moreover, "problem posing" and regular teaching can be coordinated appropriately. Meanwhile, effective approaches and methods can be offered because of the successful transformation of "problem posing" from a curricular idea into a teaching reality.

At present, the SCPBI experimental study has expanded gradually from Guizhou Province to Yunnan, Sichuan, Chongqing, Zhejiang, Guangdong, and other provinces or cities. More than 1,000 experimental classes and 600 experimental schools have integrated the subjects from first-grade to twelfth-grade. Simultaneously, SCPBI is also applied to the teaching of physics, geography, and other courses in primary and secondary schools, an initiative that is receiving good assessment. This situation not only represents the vigor embedded in the SCPBI pattern, but also promotes building a classroom-teaching culture driven by "problems," which is in line with China's reform on the curriculum for fundamental education.

The results of the experimental research indicate that SCPBI is feasible and effective. SCPBI can be easily implemented by primary and secondary school teachers. With the creation of mathematical contexts and the involvement of teachers, students can effectively pose meaningful mathematical problems. Students can also efficiently solve math problems presented to them, through which, they can obtain the corresponding mathematical knowledge and skills. By inspiring students to pose math problems, teachers can mobilize the enthusiasm of students. With the help of independent and cooperative learning, students can achieve the dominant position in teaching. Thus, the students can complete their own "re-creation" in math activities and mathematical construct of self-initiative to acquire mathematical knowledge, experience mathematical intelligence, and grasp mathematical methods. These achievements can lead to the cultivation of their innovative consciousness and practical abilities.

The method has led to the obtainment of a good teaching effect. The teaching quality has significantly improved in the experimental class. The experiments have clearly shown the following characteristics. First, a wide extent and span (more than 300 primary and secondary schools have become members of the SCPBI experimental classes in Guizhou, Sichuan, Yunnan, Chongqing, and other provinces. Second, multiple research results have been published in core journals (six monographs and more than 60 papers and teaching cases). Third, teachers participating in the experiment have changed the traditional concept of mathematics teaching. They have gained understanding of and have accepted SCPBI, which have resulted in their initiative to master its teaching methods and skills. Their specialized ability has also been developed better.

In summary, SCPBI in primary and secondary schools in China is rooted in Chinese characteristics and learns from the teaching experience of developed countries with modern classrooms. Thus, the nature of SCPBI can be characterized as adhering to distinct reality, relevance to the time, and meaningful exploration. As such, SCPBI effectively influences the improvement of the students' mathematical literacy and analysis, observation, exploration, and innovation in primary and secondary schools. SCPBI also effectively promotes the development of the curriculum for

basic mathematics education, and positively influences the standards of mathematics teaching. Furthermore, this form of teaching is useful in teaching physics, politics, history, geography, and other subjects in high school as proven by the attainment of the same preferred effect.

NOTE

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14. TEACHER COMMITMENT IN NORTHWEST CHINA

A Comparative Study of Han and Uighur Teachers

INTRODUCTION

Among all common work-related attitudes, commitment has elicited the most interest from researchers because of the belief that highly committed employees are more likely to generate organizational and individual level outcomes (Razak, Darmawan, & Keeves, 2010). In educational and school settings, highly committed teachers are more willing to assume responsibility to improve their curriculum and quality of instruction (Tsui & Cheng, 1999). In the western context, Darling-Hammond (2000) highlights the importance of the qualities of teacher and teaching. In the rural northwest part of China where this study was conducted, Adams (2012, p. 2) remarked that "Students who are taught by teachers who have official credentials, high levels of motivation to improve practice, commitment to the profession, and strong interpersonal skills have higher math achievement, on average".

Many studies have supported the above finding by exploring the relationship between teacher commitment and attitude toward school, organizational effectiveness, and continuous professional improvement (Fink, 1992; Hoy & Ferguson, 1985; Little, 1982; Elliott & Crosswell, 2002; Park, 2005; Razak, Darmawan, & Keeves, 2009; Kushman, 1992). Thus, teacher commitment plays a crucial role in curriculum reform and school improvement (Day, Elliot, & Kington, 2005; Jo, 2014).

TEACHER COMMITMENT

Commitment has several definitions. Some researchers regard commitment as involvement or behavioral intention to exert effort (e.g., Mowday, Steers, & Porter, 1979). Commitment can also be considered as a function of cognitive cost–benefit analysis to pursue a specific target (e.g., Becker, 1960; Hrebiniak & Alutto, 1972). Park (2005) argued that commitment can be defined from a psychological perspective as a link between an individual person and an object which has a special meaning. The present study adopts this definition and highlights three features of the concept of commitment. First, the objects of commitment are varied and connected with one another. Second, the behavior or performance of the individual is influenced by the objects and degree of his or her commitment, and vice versa. Third, commitment

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is also influenced by environmental and cultural conditions (Jo, 2014; Razak, Darmawan, & Keeves, 2009, 2010).

Reyes (1989, p. 65) identified the function of teacher commitment by comparing highly committed teachers and uncommitted teachers. Reyes describes the characteristics of highly committed teachers as follows:

1. Less tardy, work harder, and less inclined to leave the workplace
2. Devote more time to extracurricular activities to accomplish the goals of the educational organization
3. Perform tasks more efficiently
4. Influence student achievement
5. Believe and act upon the goals of the school
6. Exert effort beyond personal interest
7. Intend to remain a member of the school system

Overall, highly committed teachers are strongly bonded with their careers, students, and schools. Such teachers are willing to support their students and resilient to any difficulties they encounter.

In reality, teachers are strongly bonded with various aspects, such as school change, student improvement, and professional development. Louis (1990) argued that teacher commitment is a multidimensional construct, and the dimensions of which are difficult to separate. Based on an interview study, Firestone and Rosenblum (1988) proposed three objects of teacher commitment, namely, commitment to a specific context, commitment to teaching or instruction, and commitment to students. This finding was echoed by many succeeding studies (e.g., Elliot & Crosswell, 2002; Firestone & Rosenblum, 1988; Firestone & Pennell, 1993).

Teacher commitment to a school organization consists of widely shared organizational values and goals, as well as construction of staff cohesiveness (Mowday et al., 1979). Specifically, organizational teacher commitment can be interpreted from three aspects, namely, acceptance of organizational values and goals, inclination to exert effort on behalf of the school, and strong willingness to stay in school (Mowday et al., 1979). Hence, the high loyalty of a teacher to his or her school indicates high receptivity to school values and much willingness to exert effort in school affairs, as well as to stay in school. Teacher commitment to teaching refers to the extent to which teachers are satisfied with their job and likely identifying themselves as teachers (Park, 2005, p. 463). Razak, Darmawan, and Keeves (2010) divided this dimension into two components, namely, teacher commitment to teaching work and teacher commitment to the profession. The first component emphasizes "the extent to which a person identifies psychologically with his or her work, and wants to engage in the work of teaching," and the second component indicates "an affective attachment to the profession that was associated with personal identification and satisfaction in working as a teacher" (p. 190). Teacher commitment to students refers to the willingness of teachers to assist students in their study life. According

to Firestone and Pennell (1993), the combination of various types of commitment significantly contributes to the enhancement of professionalism of teachers and the continued pursuit of student improvement. However, these three components can also be in conflict with one another (Bredson et al., 1983). Wallace (1993) pointed out that teachers who are highly committed to their professionalism are less likely to be committed to their school.

Several other factors, such as personal characteristics and environmental aspects, are closely related to teacher commitment. First, the background of students clearly affects teacher commitment. Dannetta (2002) concluded that highly achieving students are more likely to challenge the instruction of teachers and their commitment to student achievement. Other aspects of student background, such as socioeconomic status, gender, and ethnicity, are also related to teacher commitment (Park, 2005).

School background, including school level, workplace culture, school size, and principal leadership, is connected with teacher commitment. The remote location and large size of a school may relate to low teacher commitment (Reyes, 1989a, 1989b). The ability of principals to keep teachers away from intrusive external forces or the high engagement of teachers in making school policies is positively related to teacher commitment (Rosenholtz & Simpson, 1990; Kushman, 1992).

According to Triandis (2001, p. 18), culture may also influence "individuals' cognitions, emotions, motivations, and values." Singelis and Brown (1995) argued that culture can affect or formulate individual psychological processes. Thus, integrating the element of culture into the exploration of teacher commitment is necessary. However, Razak, Darmawan, and Keeves (2009) indicated that few studies have explored teacher commitment between different educational systems to examine the differences among various cultural and religious groups. Although most studies on teacher commitment have originated in Western countries, similar studies in Asian context are growing in number (e.g., Thien, 2014). The element of culture is either consciously or unconsciously ignored by educational researchers. To fill this gap, the current study aims to compare teacher commitment between teachers in the Han district and those in the Uighur district of Northwest China, which is a multicultural and lowly developed region of China.

Although other chapters in this book have outlined the status of education in Northwest China, the following chapter provides a brief explanation of the context of Chinese education. At least two major educational initiatives were imposed in the northwestern part of China at the beginning of the present century. The first initiative is the eighth round of curriculum reform in China for enhancing teacher professionalism and student learning outcomes. The second initiative is the implementation of the "co-schooling of Han nationality and ethnic minorities," which aimed to enhance the educational level of ethnic minorities living in Northwest China. These two top–down educational policies may affect the commitment of Han and ethnic minority teachers. The present study explores the following research questions:

1. What are the dimensions of commitment of teachers from the Han district and those from ethnic minorities?
2. Are there differences in terms of commitment among the teachers from the two districts?

METHOD

Participants

The data presented in this chapter was extracted from a large study organized by scholars in the Northwest Normal University (Wang, Zhang, Li, Yin, & Zhang, 2011). The participants comprised 355 teachers from seven schools in Northwest China. Among the samples, 221 teachers (62%) came from three schools in the Han district, and 134 teachers (38%) came from four schools in the Uighur district of Northwest China (Table 1).

Table 1. Ethnicity of participants

Race	*Han district sample*	*Uighur district sample*
Han	220 (99.55%)	4 (2.99%)
Uighur	–	122 (91.03%)
Other	–	4 (2.99%)
Unidentified	1 (0.45%)	4 (2.99%)

Measure

Eleven items, which were developed by Park (2005), were used to measure teacher commitment in the Han and Uighur districts. These items measure three dimensions of teacher commitment, namely, *teacher commitment to school organization*, *teacher commitment to teaching profession*, and *teacher commitment to students*. A sample item measuring *teacher commitment to organization* is "The entire school faculty generally agrees with the central mission of the school." A sample item measuring *teacher commitment to teaching profession* is "I usually look forward to each working day in this school." A sample item measuring *teacher commitment to students* is "If some students in my class are not doing well, I feel the need to change my approach to teaching the subject." All items were rated by the teachers along a six-point scale ranging from "strongly disagree" to "strongly agree."

The construct validity of the instrument that measures teacher commitment was examined in the Han sample, Uighur sample, and across the Han and Uighur samples. Measurement invariance of the instrument was then tested between the

teachers in the Han district and those in the Uighur district. Using measurement invariance, the latent mean differences in teacher commitment between the teachers in the Han district and those in the Uighur district were compared.

Data Analysis

To compare the latent mean differences in teacher commitment between the teachers in the Han district and those in the Uighur district, statistical analyses were performed following a three-step procedure. In the first step, construct validity of the teacher commitment questionnaire in the Han sample, Uighur sample, and across the Han and Uighur samples was examined. After the factor structure of the questionnaire was confirmed, measurement invariance across the Han and the Uighur samples was examined by testing the configural invariance, metric invariance, and scalar invariance of the measurement models. In the third step, the differences in the latent means of teacher commitment between the Han and Uighur samples were compared. When testing the latent mean differences, the values of the latent means in teacher commitment factors were set to zero in the Uighur sample, whereas the latent mean values were freely estimated in the Han sample. All analyses were conducted using Mplus 5 (Muthén & Muthén, 2007).

RESULTS

Instrument Validation and Preliminary Analysis: Teacher Commitment Dimensions

This study aims to explore the dimensions of teacher commitment in the Han and Uighur districts. Such exploration is integrated into the process of instrumental validation.

Three confirmatory factor analyses (CFAs) were conducted in the Han sample, Uighur sample, and across the Han and Uighur samples to test the construct validity of the teacher commitment questionnaire in Northwest China. The factor structure model was modified by the indices provided by the software.

Factor structure for the Han sample. The original three-factor CFA model was used to fit to the Han sample data. The results indicated that all the standardized factor loadings for the *teacher commitment to teaching profession* factor were small, and this factor cannot be measured well. Thus, the *teacher commitment to teaching profession* factor was removed from the measurement model. The modification indices indicated that the goodness of fit indices will significantly improve if the error variances of items 10 (“If some students in my class are not doing well, I feel the need to change my approach to teaching the subject”) and 11 (“By trying a different teaching method, I can significantly influence a student’s achievement”)

were correlated. Therefore, a new measurement model, which consisted of the two remaining factors (*teacher commitment to school* and *teacher commitment to students*) and the relaxed correlated error variances of items 10 and 11, was fitted to the data. The goodness of fit indices indicated that the two-factor measurement model fitted to the data very well (Chi-square = 16.838, df = 11, p = 0.113; CFI = 0.986; TLI = 0.973; RMSEA = 0.049; SRMR = 0.027). The factor loadings are presented in Table 2.

Factor structure for the Uighur sample. The results of the CFA analysis by fitting the original three-factor measurement model to the Uighur sample also indicated that the *teacher commitment to teaching profession* factor cannot be derived. This finding is consistent with that of the Han sample analysis. The items that were originally developed to measure the *teacher commitment to teaching profession* factor should not measure a single latent construct in the Han and Uighur samples. The modification indices indicated that the goodness of fit indices significantly improved by relaxing the error variances of items 10 ("If some students in my class are not doing well, I feel the need to change my approach to teaching the subject") and 11 ("By trying a different teaching method, I can significantly influence a student's achievement") to correlate them, as well as by relaxing the error variances of items 2 ("The entire school faculty generally agrees with the central mission of the school") and 3 ("This school seems like a big family; everyone is so close and friendly") to associate them. Thus, the revised model, which consisted of the two remaining factors and the relaxed correlations of error variances between items 10 and 11 and between items 2 and 3, was fitted to the data. The goodness of fit indices indicated that the measurement model fitted to the data very well (Chi-square = 13.476, df = 11, p = 0.263; CFI = 0.995; TLI = 0.990; RMSEA = 0.041; SMRM = 0.027), and the construct validity of the questionnaire was supported in the Uighur sample. Table 1 presents the factor loadings.

Factor structure across the Han and Uighur samples. The construct validity was further examined across the Han and Uighur samples based on the factor structure of teacher commitment in the two samples. The goodness of fit indices indicated that the two-factor measurement model fitted to the data very well (Chi-square = 17.849, df = 11, p = 0.0852; CFI = 0.993; TLI = 0.986; RMSEA = 0.042; SRMR = 0.027). The factor loadings are presented in Table 2.

Cronbach's alpha coefficients (Table 3) indicated good internal consistencies of the two subscales of teacher commitment. The corresponding internal consistency coefficients for the subscales *teacher commitment to school* and *teacher commitment to students* were 0.70 and 0.78 in the Han sample, 0.79 and 0.85 in the Uighur sample, and 0.80 and 0.81 across the Han and Uighur samples.

Table 2. Factor loadings of teacher commitment for Han sample, Uighur sample, and across Han and Uighur samples

Item	*Han*	*Uighur*	*Total (Han and Uighur)*
Teacher commitment to school			
1. There is a great deal of cooperative effort among staff members.	1.00 (0.82)	1.00 (0.73)	1.00 (0.78)
2. There is broad agreement among the entire school faculty about the central mission of the school.	0.75 (0.54)	0.94 (0.70)	0.92 (0.71)
3. This school seems like a big family; everyone is so close and cordial.	0.80 (0.58)	0.90 (0.62)	0.92 (0.64)
Teacher commitment to students			
	1.00 (0.63)	1.00 (0.77)	1.00 (0.68)
9. I feel that it's part of my responsibility to keep students from dropping out of school.	1.26 (0.83)	1.11 (0.69)	1.19 (0.74)
10. If some students in my class are not doing well, I feel that I should change my approach to the subject.	0.91 (0.60)	0.88 (0.74)	0.88 (0.65)
11. By trying a different teaching method, I can significantly affect a student's achievement.	0.68 (0.59)	0.89 (0.86)	0.82 (0.74)

Note: Completely standardized factor loadings are enclosed in parentheses

Table 3. Reliability of teacher commitment

	Number of items	*Reliability*		
		Han sample	*Uighur sample*	*Total sample*
Teacher commitment to school	3	0.70	0.79	0.80
Teacher commitment to students	4	0.78	0.85	0.81

Instrument Validation and Preliminary Analysis: Teacher Commitment Differences

To address the second research question, the latent mean differences in teacher commitment between the Han and Uighur districts were compared. The measurement invariance was tested before the comparative analysis.

Measurement invariance. To compare the latent mean differences in teacher commitment between the teachers in the Han district and those in the Uighur district, measurement invariance or partial measurement invariance was initially obtained. The goodness of fit indices (Table 4) indicated that the configural invariance (Model 1), which is a baseline for further examination of the metric invariance model (Model 2), was obtained. The goodness of fit indices for the metric invariance model (Model 2), which constrained the factor loadings equal for the Han and Uighur samples, is summarized in Table 4. The differences in measurement invariance test statistics between the metric invariance and configural invariance models supported the metric invariance. Scalar invariance (Model 3a), which constrained all the intercept parameters invariant between the Han and the Uighur samples, was further examined using the metric invariance model. The goodness of fit indices (Table 4) indicated a significant loss of goodness of fit if all the intercept parameters of the seven items are constrained equal for the Han and Uighur samples. Modification indices indicated that the goodness of fit can be improved by relaxing the equity constraints on the intercept parameters for items 3 ("This school seems like a big family; everyone is so close and friendly") and 9 ("I feel that it's part of my responsibility to keep students from dropping out of school") between the Han and the Uighur samples. Thus, the partial scalar invariance model (Model 3b), which relaxed the equity constraints on the intercept parameters for the two items between the Han and Uighur samples, was further examined. The goodness of fit indices (Table 4) indicated that the goodness of fit improved compared with that in the full scalar invariance model. The differences in the measurement invariance test statistics between the metric invariance and partial scalar invariance models also generally supported the partial scalar invariance.

Table 4. Measurement invariance of teacher commitment

Model	*Chi-square value*	*df*	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1: Configural model	30.314	22	0.991	0.982	0.046	0.027
Model 2: Equal all-factor loadings (metric invariance)	38.453	27	0.987	0.980	0.049	0.070
Model 3a: Equal all-factor loadings and equal intercepts (scalar invariance)	79.252	32	0.947	0.930	0.091	0.083
Model 3b: Equal all-factor loadings and equal intercepts (except three items) (partial scalar invariance)	43.299	30	0.985	0.979	0.050	0.078

Latent mean differences in teacher commitment. The partial scalar invariance justified the comparison of the latent means in the teacher commitment factors

between the teachers in the Han district and those in the Uighur district. Table 5 shows the results of the latent mean differences between the Han and Uighur samples, as well as the associated effect sizes. The results indicated that the latent mean difference in the *teacher commitment to school* factor was statistically significant, and the teachers in the Han district scored significantly higher than those in the Uighur district. The associated effect size of 1.02 indicated substantial differences between the teachers in the Han and Uighur districts. As for the *teacher commitment to students*, the latent mean difference was marginally significant, and the teachers in the Uighur district scored higher than those in the Han district. However, the associated effect size was small.

Table 5. Latent mean differences on teacher commitment

	Latent mean difference ($M_{Han} - M_{Uighur}$)		
	Estimate	*p*	*Effect size (d)*
Teacher commitment to school	0.730	0.000	1.02
Teacher commitment to students	−0.199	0.049	0.28

DISCUSSION

Two-dimensional Construct of Teacher Commitment

For teachers in the Han or Uighur District, only two dimensions of teacher commitment, namely, *teacher commitment to school* and *teacher commitment to students*, were extracted from the empirical data. This finding differs from other research outcomes in which professional commitment shows moderately strong and positive association with organizational commitment (Wallace, 1993). However, the present study provides another evidence supporting the previous hypothesis that different types of teacher commitment may be in conflict with one another (Firestone & Pennell, 1993; Golby, 1996). For Chinese teachers, the items "teacher commitment to school" and "teacher commitment to students" mainly examine the sentiments of teachers with regard to the behavior of their colleagues (e.g., "A great deal of cooperative effort exists among staff members") and their tendency and inclination in relation to their students (e.g., "I feel that keeping students from dropping out of school is part of my responsibility"). However, the items regarding commitment to the profession mainly examine the extent to which teachers are satisfied with their career, which is slightly different from the aforementioned behavioral dimensions. This variation indicates that for teachers in either the Han or Uighur district, behavior decisions and performance may not be aligned with their attitudes toward the teaching profession. Hence, for the participants in this study, what they would like to perform and how they would like to behave are distinct from their private opinion of the profession, and the two aspects do not coincide.

Differences between Teachers in the Two Districts: Dimension of School Commitment

By comparing the latent means of the two dimensions between the two districts, the teachers in the Han district scored significantly higher on school commitment than those in the Uighur district. This phenomenon may be influenced by the implementation of the top–down policy of co-schooling for the Han nationality and ethnic minorities in the Uighur district. Traditionally, people of Han nationality and Uighur ethnic groups live together in the Uighur district. However, the educational systems of these two ethnic groups are independent of each other. Hence, students of Han nationality only go to schools with principals and teachers of the same nationality, and Uighur students only go to Uighur schools. In 2000, the co-schooling policy was introduced to the Uighur district to improve the educational level of the Uighur ethnic group. Educational resources were rearranged, and manpower, including principals and teachers, was redistributed. For example, in Urumqi, the capital of Uighur district, all primary schools and secondary schools adopted co-schooling by 2008 (Wen, 2010). Therefore, most of the teachers in the Uighur district experienced changes in schools and in their professional relationships with their colleagues. The teachers required time to adjust to the new school environment and form their commitment to the school organization, the new school, or at least the former school as their workplace. Most schools in the Uighur district experienced such situation. By contrast, the teachers in the Han district did not experience the possible effect arising from this policy, and their schools operated in stable and usual conditions. Hence, these teachers more easily cultivated and developed teacher commitment to their schools. This situation may be one of the reasons for teachers in the Han district demonstrating higher commitment to schools than that shown by Uighur teachers.

The culture of co-schools in the Uighur district may also negatively affect the formation of teacher commitment to the organization. Although the co-schooling policy is expected to strengthen the interaction between teachers and students of different ethnic groups, Uighur teachers usually teach only Uighur students, and vice versa, because the two groups use different languages. Generally, Han teachers do not use the Uygur language, and Uighur teachers may not be proficient in Chinese Mandarin (Putonghua). Therefore, the semi-isolated teacher culture among teachers originally from different ethnic groups may also hinder them from developing a high level of commitment to the entire school community. This issue then provides us with another clue to understand why teachers from the Uighur district do not commit to their schools as with their counterparts in the Han district.

Differences between Teachers of Two Districts: Dimension of Student Commitment

The data indicated that teachers in the Uighur District scored higher in student commitment than their counterparts in the Han District, although the difference was

marginally significant. Roseholtz and Simpson (1990) indicated that academic high-achievers are more likely to challenge teacher commitment to student achievement. By comparing overall student academic achievement, the students in the Han district perform better than those in the Uighur district.[1] Thus, teachers may be more concerned with the problems faced by their low-achieving students and develop higher commitment to improving student learning.

The co-schooling policy also claims to improve the educational level of minority ethnic groups, which implies that the educational quality of Han teachers is better than that of Uighur teachers and other minority ethnic groups. Under the mandatory policy and within the broad context of comparison, Uighur teachers may be inclined to create closer connections with students from the same ethnic group. The teachers in the Han district do not experience these administrative changes on teaching quality in schools. Consequently, Han teachers may not need to exert additional efforts and form a particularly strong bond with their students. However, Uighur teachers notably tended to adopt a teacher-centered pedagogy, add more emphasis on moral education, and provide less direct support to students. Nevertheless, students revealed high motivations and self-regulated learning abilities (Wang et al., 2011, p. 73). This finding warrants follow-up studies to reveal the complexities of teacher–student relationships and the commitment of teachers to students in the Uighur district.

IMPLICATIONS

During the implementation phase, teachers should deal with far-reaching changes occurring inside or outside classrooms. Park (2005) emphasized two reasons why teacher commitment should be the focus of attention in these changing times and in the context of worldwide curriculum reform. First, commitment can be a strong impetus for teachers who should shoulder greater responsibilities and face bigger challenges during curriculum innovation. Second, "it is external force coming from the reform movement seeking high standards and accountability, which are dependent upon teachers' voluntary commitment" (pp. 461–462). Therefore, we examined the commitment of teachers in the Han and Uighur districts to clearly demonstrate the attitudes of teachers toward various objects, namely, school, teaching profession, and students.

Colarelli and Bishop (1990) argued that commitment to the profession drives individual vocational goals, as well as behaviors to complete these goals. Somech and Bogler (2002) proposed that teacher commitment to the teaching profession covers not only their affective attachment to their career, but also the extent to which they are satisfied as a teacher. Thus, high commitment to the profession should be the crucial internal support for teachers to cope with the evolving external problems or difficulties in teaching. However, based on the data of the present study, we observed that teachers in neither the Han nor Uighur districts have established career commitments aligned with their commitments to schools and students. Meyer, Allen,

and Topolnytsky (1998) indicated that individuals may alter their emotional link with their career because of the changing context.

Wang et al. (2011, pp. 72–74) found that teachers in the Han district tended to increase levels of teacher efficacy compared with their counterparts in the Uighur district. However, teachers in the Uighur district tended to increase the level of overall professional development compared with their counterparts in the Han district. The manner of association among professional development, teacher efficacy, and other social factors (such as teacher salaries) that may have shaped the commitment of teachers requires further investigation. Nonetheless, policy makers and researchers should consider improving related systemic and school-level factors to enhance the degree of teacher satisfaction in terms of their profession.

Razak, Darmawan, and Keeves (2009) suggested that leadership and in-school working conditions can influence teacher commitment to their school and work. Leithwood and Jantzi (1999) distinguished five factors of in-school environment as follows: (1) purpose and goals, (2) structure and organization, (3) organizational culture, (4) information collection and decision making, and (5) planning. Abd Razak (2007, pp. 112–113) identified four levels to construct working conditions, namely, school purposes and goals, internal stability and control, human relations and development, and school environment monitoring and management. Therefore, school leaders should improve all these aspects to increase teacher commitment. Leithwood and Jantzi (2000) also developed a transformational leadership model to enhance teacher commitment, which may provide additional clues on developing educational programs for school change and improvement. For the Uighur district, where people from various ethnic groups live together, communication, interaction, and even conflict of various cultural perspectives are inevitable, particularly in co-schools in the district. The effects of cultural differences may intercede in some aspects of teacher commitment (Razak et al., 2009). Hence, enhancing mutual respect and improving harmony can be promoted not only in these co-schools, but also in the society, which merits further investigation.

CONCLUSION

This exploratory and empirical study on teachers in the Han and Uighur districts in Northwest China has revealed that teacher commitment comprises two dimensions, namely, commitment to school and commitment to students. The differences of the latent means were compared among different districts. The findings of this study can provide understanding of the commitment of teachers in the Han and Uighur districts. Influencing factors on teacher commitment will be examined further through a combination of quantitative and qualitative research. Such research will assist in constructing a comprehensive representation of teacher commitment, which can provide insightful implications for formulating educational policies and implementing curriculum reform.

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NOTE

[1] For the National College Entrance Examination, students in the Uighur District can obtain 50 additional scores in total for being minority ethnic students.

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15. CHALLENGES AND INSIGHTS OF EARLY CHILDHOOD EDUCATION IN WEST CHINA

From the Perspective of Quality and Equity

BACKGROUND

"Promoting equity" and "improving quality" are the important parts of the "20 Words Policy" of the National Outline for Medium- and Long-term Education Reform and Development (2010–2020). The policy not only aims to achieve synchronousness with the world education development trend, but also to respond to the education development issues that China has been facing for a long time. In terms of early childhood education (ECE), China faces the challenge of reducing the development gap among different regions, particularly between Eastern and Western areas, as well as urban and rural areas, and improving ECE quality. Chinese governments at all levels have taken a series of measures. The central government has formulated and promulgated a number of laws and regulations, such as "State Council on the Current Development of Early Childhood Education," "Kindergarten Teacher Professional Standards (Trial)," "Learning and Development Guidelines for 3–6 Year-Old Children," and "Teacher Education Curriculum Standard (Trial)." The county-based "Three-year Action Plan for Early Childhood Education" and large-scale "National Early Childhood Teacher Training Program" were also implemented. At the same time, local governments have initiated development strategies. However, the pursuit of educational equity and quality is a never ending process. Thus, we must maintain a positive attitude to ensure that we can reflect the reality and face challenges toward seeking a breakthrough and upgrading the level of ECE.

Since the 1970s, the quality of ECE has become a hot research field internationally. In China, related studies can be divided into theoretical discussion and empirical investigation. Theoretical discussions have focused on the significance, meaning, and influencing factors of, as well as the evaluation methods for ECE quality. Researchers have confirmed the significance of the quality of kindergarten education (Liu, 2012) and believe that the educational process is the most important factor of quality evaluation (Liu, 2003, 2004; Liu, 2006; Li & Hu, 2012). Therefore, interaction between teachers and children within classes and curricula must be a serious concern (Yuan, 2011). Empirical investigations have focused on identifying problems and providing suggestions in specific areas.

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An investigation on Beijing private kindergartens (Zhang, 2003) and a survey on the quality of kindergartens in 11 provinces in China (Liu, 2012) are typical representatives. Zhang (2003) believes that "private kindergartens generally have good hardware… however, their toy materials and activity zone settings, which are directly related to children's activity, were defective… It is detrimental to the development of children" (Zhang, 2003). Liu (2012) pointed out that "at present, Chinese kindergartens have good basic physical environment…but there are also a number of outstanding issues, such as the unsuitability of the material to young children's development needs and concerns…teachers' ability to listen and concern for children are not sufficient…county-level assessment of kindergarten quality needs to be strengthened, and so on."

In theory or practice, educational equity is an important and popular topic. Several basic consensuses have been arrived at in China after years of intense discussion. For instance, educational equity is not the antithesis of educational efficiency; it means not only equal opportunity, but also equal access to education, rational allocation of resources, and different treatments and compensations for disadvantaged groups. Furthermore, educational equity involves educational activities, academic achievement, and even fairness in the process of returning to school (Guo, 2000; Tian & Li, 2002; Chu, 2006; Shi, 2008). ECE researchers have mostly concentrated on analyzing educational equity and policy reform (Han, 2010; Xia, Pang, & Sha, 2009; Zhou & Yang, 2010), as well as in summarizing and reflecting the same issues in other countries (Pang, Sun, & Xia, 2014; Liu & Cai, 2013; Hu, 2013; Pang, Sha, & Liu, 2008). However, early childhood teachers have failed to reach the core areas of educational equity research.

The level of ECE development in Western China lags behind that in the Eastern China because of the gaps in economy, culture, and other aspects. Moreover, a huge gap in ECE exists in the urban and rural areas of the western region. Therefore, the key to addressing the difficulty in promoting educational equity and improving quality can be found in the western rural areas. Studying ECE in the western rural areas should not only describe the phenomenon, but also determine problems and put forward suggestions for improvement to enhance the level of ECE development. We intend not only to describe ECE in West China, but also to study deeply the practical problems of ECE in the representative western rural areas from the perspective of equity and quality, and subsequently, to provide measures and suggestions that can assist in addressing these problems.

METHOD

Sampling

Western China consists of 12 provinces and autonomous regions, including five provinces in the southwest (i.e., Sichuan, Yunnan, Guizhou, Tibet, and Chongqing), five provinces in the northwest (Shanxi, Gansu, Qinghai, Xinjiang, and Ningxia),

Inner Mongolia, and Guangxi. Adopting purpose sampling method, City W in Xinjiang, County S in Chongqing, and City M in Sichuan were selected as sample areas. As the developed region in Xinjiang, City W represents a high level of development in the western ethnic minority autonomous region. As the state-level poverty county, County S is also the minority autonomous county that represents

The western underdeveloped minority autonomous region. The GDP of City M ranks second in Sichuan Province, and thus it represents the medium level in the Han areas.

In each area, stratified random sampling technique was adopted to select a number of kindergartens. Kindergartens were divided into three categories, namely, private, independent public, and affiliated public kindergartens, which are attached to primary school.

Framework

Ultimately, education is about the development of human beings. The quality of ECE can be understood based on the overall development of the children. However, the development of children is a result of nature and nurture. Family environment is an important nurture factor. Thus, the development of children should never be used as the only evaluation index for evaluating institutional education quality. Furthermore, quality of teachers and educational equipment are important factors that affect the development of children. However, only in cases where these factors interact with children and are included in children's experience will their educational functions be realized. Therefore, the experience of children should also be an important index in evaluating the quality of preschool education. The western region is an ethnic minority area. From the perspective of respecting cultural diversity, focusing on kindergarten bilingual teaching is significant.

Based on the analysis above, this study used the development level of the children in mathematics, hands-on activities in kindergarten, teachers' job satisfaction, and bilingual teaching in ethnic minority areas as indexes to reflect quality. For each index, different regions, kindergartens, and children were compared from the perspectives of equity and justice. The reflections of kindergarten teachers on educational equity were also discussed as an auxiliary index.

Tools

"The Assessment of School Readiness: Mathematics" created by Pan, Y. J. and Liu, Y. in June 2010 was adopted as the tool for Mathematics school readiness test. This assessment is concerned with four areas of math learning, namely, numeracy, quantity, geometry and space, and relationship. These areas are further divided into eight dimensions. The test includes 28 questions, with 29 points as the total score. The internal consistency reliability (Cronbach's alpha) is 0.763. The sampling area is County S.

In-depth observations in kindergarten classes were conducted to investigate the operating activities of the children. By purposeful sampling in M City, two typical rural kindergartens were chosen intentionally. Subsequently, three children of different ages were randomly selected to track the investigation.

We defined the job satisfaction of preschool teachers as general and subjective attitudes and opinions toward their job, working conditions, and status based on the definition provided by Rodgers-Jenkinson and Chapman (1990), Landy (1989), and other scholars. We designed the "preschool teachers' job satisfaction questionnaire" based on scales of the job satisfaction of teachers provided by Chen and Sun (1994) and other researchers. This questionnaire comprises two parts, namely, personal background information and job satisfaction. Personal background information includes gender, working years, professional titles, educational background, and the nature of their preschools. By contrast, job satisfaction includes overall satisfaction and satisfaction with economic income, labor intensity, physical conditions, relationship with colleagues, relationship with parents, relationship with children, leadership and management, work stress, social reputation, and in-service development. The questionnaire utilizes a Likert scale with five points (i.e., 1=strongly dissatisfied, 2=not satisfied, 3=neutral, 4=satisfied, 5=very satisfied). The internal consistency coefficient (Cronbach's Alpha) is 0.808. The sampling area is also County S.

Through purposive sampling, Kindergarten A in City W was chosen as the sample that can reflect the condition of bilingual teaching in minority areas. Founded in 1978, Kindergarten A is a multi-ethnic boarding kindergarten, which belongs to city-level demonstration kindergartens (provincial demonstration kindergarten competitions in Xinjiang have not been carried out). The kindergarten, which has three teaching buildings, covers an area of 6,162 square meters, construction area of 8,062 square meters, and activity venues of 2,750 square meters. Kindergarten A is the preschool education teaching experimental base of universities and colleges in Xinjiang Autonomous Region. It has three age groups and 24 classes, three of which are Uighur bilingual teaching class. Kindergarten A is the largest kindergarten in Urumqi City with more than 1,000 students of Hui, Mongolian, and Han nationalities. The strong faculty is composed of 98 full-time teachers (4 with postgraduate certificate, 10 with bachelor degrees, 46 with college certificate, 34 with technical secondary school certificate, 5 are studying for graduate and 30 for college). Only 6 of the full-time teachers are males. Data collection was conducted through observation, interview, and material collection.

Questionnaire and interview were used as main tools to collect data on the teachers' perspective on ECE equity. The questionnaire consists of three parts: background information (Part 1), perspective on macro equality (Part 2), and perspective on micro equality (Part 3). Part 2 has six questions that investigate teachers' perspectives on the overall ECE equality condition and equality among genders, locations, and different socioeconomic backgrounds. Part 3 has seven questions that aim to derive teachers' reflection on their own attitudes and behaviors

about equality in their daily lives. Answers for Part 2 and Part 3 are indicated using a 5-point Likert scale. The Cronbach's alpha coefficient of this questionnaire is 0.687. Interviews were conducted to determine the understanding of teachers on ECE equality and their judgments on the current problems related to equality. The sampling area is County S.

RESULTS AND DISCUSSION

Mathematics Learning for School Readiness

Children's overall situation on school readiness in mathematics. Children's test scores ranged from 4 to 27. The average is 15.8, and the standard deviation is 4.795. The scores in numeracy are shown in Table 2. The passing rate for each question is presented in Table 3. The t-test showed that performances in addition and subtraction are better than those in meaning and comparison of numbers.

Table 1. Summary of numeracy scores

	N	*Minimum*	*Maximum*	*Mean*	*Standard deviation*	*t*	*P*
Meaning and comparison of numbers	167	0	5	2.81	1.102	–3.459	.001
Addition and subtraction	167	0	5	3.18	1.462		
Numeracy	167	0	10	5.99	2.200		

Table 2. Passing rate for each question on numeracy

Question number	*Test content*	*Passing rate (%)*
1	Meaning and figure of numbers	91.6
2	Comparison of numbers (with pictures)	42.5
3	Comparison of numbers (with pictures)	77.8
4	Multiple comparison of numbers (with numbers)	25.2
5	Comparison of numbers (mental arithmetic)	44.9
6	Subtraction within 10 (with pictures)	81.4
7	Addition within 20 (with pictures)	63.5
8	Subtraction within 10 (with pictures)	77.2
9	Addition within 20 (mental arithmetic)	43.7
10	Addition within 20 (mental arithmetic)	52.1

The test score of quantity ranges from a minimum of 0 to a maximum of 5. The average is 3.07, and the standard deviation is 1.285. The passing rate for each question is presented below.

Table 3. Passing rate for each question in quantity

Question number	*Test content*	*Passing rate (%)*
11	Comparison of size and arrangement (with pictures)	55.7
12	Comparison of length and arrangement (with pictures)	80.2
13	Thickness comparison (with pictures)	68.3
14	Multi-weight comparison (with pictures)	47.3
15	Multiple length comparison (with pictures)	55.1

The area of geometry and space consists of two secondary dimensions. Test scores are presented in Table 5. The passing rate of each question is shown in Table 6.

Table 4. Summary of geometry and space scores

	N	*Minimum*	*Maximum*	*Mean*	*Standard deviation*
Geometry	167	0	4	1.42	1.016
Spatial orientation	167	0	2	1.12	.638
Geometry and space	167	0	6	2.54	1.308

Table 5. Passing rate for each question in geometry and space

Question number	*Test content*	*Passing rate (%)*
16	Graphical differences (with pictures)	52.1
17	Triangle cognitive (with pictures)	48.5
18	Graphic combination (with pictures)	22.8
19	Graphic combination (with pictures)	20.4
20	Right–left direction (with pictures)	73.7
21	Multiple upper and lower direction (with pictures)	38.3

Table 6. Summary of relation scores

	N	*Minimum*	*Maximum*	*Mean*	*Standard deviation*
Classification	167	0	2	1.01	.665
Ordering	167	0	3	2.13	.952
Pattern recognition	167	0	3	1.06	.897
Relation	167	0	8	4.20	1.817

The area of relation contains three secondary dimensions. Test scores are presented in Table 7. The passing rate of each question is shown in Table 8.

Table 7. Passing rate for each question in relation

Question number	*Test content*	*Passing rate (%)*
22	Physical classification (with pictures)	32.9
23	Pattern-size-shape classification (with pictures)	68.9
24	Ordering of number (with pictures)	71.9
25	Ordering of height (with pictures)	73.7
26	Ordering of size (with pictures)	67.1
27	Simple pattern recognition (with pictures)	49.1
28(1)	Complex pattern recognition (with pictures)	45.5
28(2)	Complex patterns of cognitive expansion (with pictures)	12.0

Table 8. Gender differences in test scores

Gender	*N*	*Mean*	*Standard deviation*	*t*	*P*
Male	90	16.02	4.769	.639	.523
Female	77	15.55	4.844		

Differences among children. The t-test result (Table 9) shows that no significant differences exist between boys and girls in both the total score and the sub-areas.

Table 9. Differences between locations (total scores)

Locations	*N*	*Mean*	*Standard deviation*	*t*	*P*
County town	57	18.96	4.248	6.931	.000
Country side	110	14.17	4.225		

However, the t-test result (Table 10) shows a significant difference between kindergarten children from different places. In each area and total score, children from kindergartens in county towns obtained higher scores than children from countryside kindergartens.

Table 10. Differences among kindergartens (total scores)

	N	*Mean*	*Standard deviation*	*D*		*P*
Private	69	15.26	4.598	Public affiliated-private	–.928	.240
Public affiliated	60	14.33	4.610	Public independent-affiliated	4.772	.000
Public independent	38	19.11	3.894	Public independent-private	3.844	.000
Total	167	15.80	4.795			

Between groups $F = 14.225$, $P < 0.001$

ANOVA shows that children in independent public kindergartens performed better than those from other types of kindergarten in terms of the total score (Table 11) and each area ($P < 0.001$). Children from affiliated kindergartens performed poorest in every area. ANOVA and further multiple comparisons also show that among the seven kindergartens, the independent public kindergarten and WX private kindergarten in a county town perform better than others ($P < 0.001$).

DISCUSSIONS

The average passing rates of the four areas from high to low are as follows: quantity (61.32%), numeracy (59.99%), relationship (52.64%), geometry and space (42.63%). The average passing rates of the eight secondary dimensions from high to low are as follows: ordering (70.9%), addition and subtraction (63.58%), comparisons of quantity (61.32%), meaning of number and comparison (56.4%), spatial orientation (56%), classification (50.9%), geometry (35.95%), and pattern recognition (35.53%). The analysis of each passing rate shows that questions with the highest passing rates are those that pertain to the meanings of number and comparison (Question No. 1, 91.6%), addition and subtraction (Question No. 6, 81.4%), and comparison of quantity (Question No. 12, 80.2%). By contrast, the questions with the lowest passing rates are those that pertain to the meanings of number and comparison (Question No. 4, 25.2%), geometry (Question No. 18, 22.8%), geometry (Question No. 19, 20.4%), orientation (Question No. 21, 38.3%), classification (Question No. 22, 32.9%), and pattern recognition (Question No. 28–2, 12%).

Table 11. Satisfaction on each dimension

	Percentage of options					*Min*	*Max*	*Mean*	*SD*
	Strongly dissatisfied	*Dissatisfied*	*Neutral*	*Satisfied*	*Very satisfied*				
Relationship with colleagues	0	0	6.4%	58.2%	35.5%	3	5	4.29	0.580
Relationship with children	0	0	8.2%	64.5%	27.3%	3	5	4.19	0.567
Leadership and management	0.9%	0	10.9%	63.6%	24.5%	1	5	4.11	0.654
Relationship with Parent	0	0	18.2%	67.3%	14.5%	3	5	3.96	0.574
Social reputation	0.9%	6.4%	20.0%	64.5%	8.2%	1	5	3.73	0.741
Work stress	1.8%	6.4%	37.3%	48.2%	6.4%	1	5	3.51	0.787
In-service development	0.9%	10.0%	33.6%	49.1%	6.4%	1	5	3.50	0.799
Labor intensity	2.7%	8.2%	30.9%	54.5%	3.6%	1	5	3.48	0.810
Physical conditions	0	10.0%	40.9%	44.5%	4.5%	2	5	3.44	0.736
Economic income	14.5%	30.9%	33.6%	20.0%	0.9%	1	5	2.62	0.995

These results reveal that the learning and development level of children in mathematics and different areas are unbalanced and unsynchronized, which is consistent with previous research conclusions (Pan, Qiu, Liu, & Zhou, 2012). Areas where performance is better include numeracy and quantity, whereas areas where performance is poor include geometry and recognition pattern. The observation is relatively consistent with the general understanding of ordinary parents and teachers of mathematics in rural areas, that is, mathematics is often approximately equal to arithmetic, and, therefore, the other learning areas are neglected to a certain degree. At the same time, performance is also affected by the level of children's cognitive development. Five to six-year old children in kindergarten remain in preoperational thinking level. With the help of physical or representation, they can solve simple and intuitive mathematical problems. However, if the problem requires a continuous and complex representation operation and lacks supportive objects (e.g., multiple comparisons of numbers and rotation of objects by mental representation) or if the

problem involves the general view and abstraction of phenomenon (e.g., object classification and pattern recognition), the performance of the children is poor.

Performance in mathematics is the direct reflection of the quality of the past education of the children. Therefore, kindergartens in rural areas should improve and enhance the quality of mathematics education to strengthen the guidance in such mathematical areas as geometry and relationships. Cultivating children's representation ability and ability to conduct abstraction and summary through hands-on activities is important to achieve balanced development in all areas of mathematics.

Kindergartens in county town and countryside, as well as kindergartens with different funding schemes, have significant differences in readiness in mathematics, except in the gender dimension. In terms of the total score and individual scores in all areas and dimensions, children from kindergartens in town area score significantly higher than those from kindergartens in countryside. In terms of the total score and individual scores in all areas and dimensions, children from independent public kindergartens score significantly higher than those from private and public affiliated kindergartens. In terms of the differences among kindergartens, children from the public independent kindergartens and a private kindergarten, WX, in town areas significantly score higher than the others. However, no significant difference exists between them and those from other kindergartens.

This case shows that significant differences and imbalance among different pre-school institutions and between children from town and countryside areas exist within a county. However, these differences can be explained from several perspectives.

First, these differences are affected by the socio-economic position of the family. The position of families of kindergarten children in the county town, whether independent public or private with higher fees, is obviously more dominant than that of families in the countryside.

The second factor is the quality of kindergartens and teachers. Independent public and private cozy kindergartens with better mathematical school readiness status have highly professional teachers. Generally, teachers in public affiliated kindergartens do not possess relevant certifications, are employed as temporary personnel, and are former primary teachers. Moreover, public affiliated kindergartens devote considerable time on meaningless waiting and inappropriate primary tendency teaching activities.

In conclusion, enrollment is no longer the top issue, but equity in ECE, which has remained unresolved. The ECE quality of different institutions, even within the same county, differs significantly because of poor allocation of resources and other problems. Hence, the weak area is the countryside. Therefore, further measures should be taken to optimize the structure of kindergarten teachers and enhance the quality of kindergartens.

CHILDREN'S OPERATING ACTIVITIES IN CLASSROOM

General Description

Materials. In two rural kindergartens, the operating materials of the children are divided into two groups, namely, semi-finished products (e.g., paper, blocks, clay, and water) and finished products (e.g., balls, sandbags, sliding ladder, cans, and toy horses). The quantity of semi-finished products or raw materials is less than that of finished products.

Tools. We observed three children and noticed that they seldom use any tools during their operating activities. They simply worked on materials directly with their hands. Tools, such as pen, glue, and scissors, were used only in painting and cutting activities.

Time. The operating activities of the three children were scattered in several short periods. Most activities of Children A1 and A2 lasted for only 10 minutes, and the total time was approximately one hour for the whole day. The operating activities of Child B1 lasted longer, that is, approximately 20 minutes. The total time is approximately 2 hours for the whole day.

Interaction between teachers and children. In Kindergarten A, teachers seldom interacted with the children during the latter's operating activities. Instead, they stand by, chat, and pay slight attention to the children. Children hardly receive guidance from teachers. Interactions between teachers and children in Kindergarten B were better than those in Kindergarten A. Teachers acted as guide, observer, and participant in several activities. For example, teachers demonstrated how to cut and paste during craft activities played games with the children or threw sandbags during outdoor activities.

Analysis and Discussion

Kindergarten children in rural areas have poor operating ability. During the one day observation, Child A1 spent most of the time sitting on his chair and chatting with two girls who were sitting nearby. During outdoor activities, he stood still and chatted with his classmates. Child A2 spent most of the time sitting on his chair, probably because he is too young and only occasionally that one or two classmates talked with him. In addition, Child A2 failed to complete his work in painting. Child B1 conducted some exploration operations when playing with toys and building blocks, as well as successfully completed his painting work. However, Child B1 spent considerable time on aimless play and chatting with others.

Shortage of materials for operating activities exists. Kindergartens in rural areas usually lack materials to support children's play. The reading corner of Kindergarten A had no books. We found only pencils, erasers, and watercolor pens in the bags of the children. The art area features only the works of teachers and lacks watercolor pens, crayons, and glues. Teachers explained that children bring those materials. The construction area only had a small amount of blocks. In the playground, only a small slide was available.

Teachers lack appropriate attitudes toward operating activities. The following interview exposes the inappropriate attitudes of teachers toward operating activities:

Researcher (R): What is your course arrangement?

Teacher (T): There is no specific course arrangement, the top (Department of Education) do not allow us to teach spelling, reading, and mathematics. They do not like children taking schoolbags. Teachers are demanded to design emergent curriculum, for example, if children were interested in a snail today, we must do something according to their interests.

R: What do you think is valuable for children to learn?

T: I think that is self-care ability. Learning to read and mathematics are secondary.

R: In what way do you think young children learn more effectively?

T: Play. In our training program, professionals said that play is the best way. I think it must be, too. So, we have less formal teaching, and let children play freely.

R: What is your view on operating activities?

T: I think that those activities are good for the development of their physical coordination and intelligence. We should let children begin doing things in kindergarten.

The excerpt above shows that rural kindergarten teachers are aware of the value of play and operating activities through training, but they lack clear concept on how to support and guide the activities of children effectively. Thus, play becomes "let them go."

Job Satisfaction of Preschool Teachers

General condition. The present study used two instruments to understand each teacher's overall job satisfaction. We used an "overall situation" questionnaire that requires teacher's self-evaluation. We also used the average score of 10 dimensions to represent the overall job satisfaction. The two ways showed extremely significant correlation ($r = 0.624$, $P < 0.001$). In the case of self-evaluation, the minimum is 2, the maximum is 5, the average is 3.77, and the standard deviation is 0.659. Specifically, 4.5% of the participants were "not satisfied," 21.8% were "neutral," 65.5% were "satisfied," and 8.2% were "very satisfied." In the case of the average score of 10 dimensions, the minimum is 2.6, the maximum is 4.9, the average is 3.6827, and the standard deviation is 0.44327.

The analysis of the situation for each dimension suggested that dimensions with higher satisfaction are those concerned with relationships, especially relationship with colleagues (the average is 4.29, the minimum is 3, and satisfied percentage is 93.7%) and with children (the average is 4.19, the minimum is 3, and satisfied percentage is 91.8%). The lowest satisfied dimension is economic income (the average is 2.62, the minimum is 1, and satisfied percentage is only 20.9%).

After the mutual correlation analysis between the 10 dimensions and overall satisfaction, we found that whether self-evaluated or calculated, significant positive correlations exist between overall satisfaction and the 10 dimensions. The strongest correlations are related to in-service development, leadership and management, and social reputation. Moreover, significant positive correlation was found between in-service development and all other dimensions. Social reputation has significant positive correlation with all other dimensions except relationship with colleagues. The correlation between income and all interpersonal dimensions is insignificant, but the satisfaction of income has significant positive correlation with labor intensity, physical conditions, work stress, social reputation, and in-service development (see Table 12).

Comparative analysis. The analysis of the correlation between the working experience of teachers and their satisfaction suggested a significant negative correlation between years of working and overall satisfaction, labor intensity, work stress, and in-service development. The longer the teachers work, the lower their satisfaction level (see Table 13).

The correlation between the professional titles and satisfaction suggested that titles and working stress are significantly negatively correlated, which means that teachers with higher titles have stronger working stress and lower satisfaction than those with lower titles. Chi-square test confirmed this conclusion ($P < 0.05$). However, the results of variance analysis suggested that the differences between different titles are insignificant in relation to the overall satisfaction or the satisfactions of 10 dimensions (see Table 14).

The correlation between education background and satisfaction suggested a significant negative correlation between education background and the satisfaction of relationships with colleagues, teachers, and children. Chi-square test confirmed this conclusion ($P < 0.05$). The results of variance analysis showed that the difference in satisfied degree in relationship with children ($F = 3.546$, $P = 0.009$) and in-service development ($F = 6.180$, $P = 0.000$) is significant. By comparing the mean, we found that teachers with normal school certificate have the highest satisfaction of relationship with children (mean 4.47), whereas teachers who completed only secondary schools (mean 3.80) have the lowest. In addition, teachers with college background have the highest satisfaction in relation to in-service development (mean 4.0), whereas the teachers who completed only secondary schools (mean 2.40) have the lowest. Chi-square test also confirmed the differences in the in-service development ($P < 0.01$) (see Table 15).

Table 12. Correlation between dimensions

	Economic income	*Labor intensity*	*Physical conditions*	*Relationship with colleagues*	*Relationship with parents*	*Relationship with children*	*Leadership and management*	*Work stress*	*Social reputation*	*In-service development*
Economic income	1.000	0.428**	0.386**	–0.013	0.115	0.028	0.050	0.311**	0.204*	0.254**
Labor intensity	0.428**	1.000	0.510**	0.185	0.258**	0.146	0.018	0.724**	0.352**	0.236*
Physical conditions	0.386**	0.510**	1.000	0.120	0.191*	0.109	0.188*	0.426**	0.322**	0.393**
Relationship with colleagues	–0.013	0.185	0.120	1.000	0.542**	0.588**	0.469**	0.284**	0.148	0.307**
Relationship with parents	0.115	0.258**	0.191*	0.542**	1.000	0.517**	0.440**	0.309**	0.472**	0.298**
Relationship with children	0.028	0.146	0.109	0.588**	0.517**	1.000	0.420**	0.200*	0.228*	0.244*
Leadership and management	0.050	0.018	0.188*	0.469**	0.440**	0.420**	1.000	0.103	0.343**	0.434**
Work stress	0.311**	0.724**	0.426**	0.284**	0.309**	0.200*	0.103	1.000	0.262**	0.381**
Social reputation	0.204*	0.352**	0.322**	0.148	0.472**	0.228*	0.343**	0.262**	1.000	0.344**
In-service development	0.254**	0.236*	0.393**	0.307**	0.298**	0.244*	0.434**	0.381**	0.344**	1.000
Overall satisfaction (self-evaluated)	0.215*	0.332**	0.415**	0.189*	0.414**	0.252**	0.540**	0.330**	0.531**	0.585**
Overall satisfaction (calculated)	0.582**	0.652**	0.603**	0.549**	0.591**	0.496**	0.469**	0.681**	0.512**	0.653**

** $P < 0.01$; * $P < 0.05$

Table 13. Correlation between work experience and satisfaction levels

		Economic income	*Labor intensity*	*Physical conditions*	*Relationship with colleagues*	*Relationship with parents*	*Relationship with children*	*Leadership and management*	*Work stress*	*Social reputation*	*In-service development*	*Overall satisfaction (self-evaluated)*	*Overall satisfaction (calculated)*
Number of years	Pearson	–0.169	–0.333**	–0.163	–0.058	–0.054	–0.061	–0.059	–0.247**	–0.244*	–0.276**	–0.302**	–0.291**
	Spearman	–0.212*	–0.295**	–0.209*	–0.177	–0.117	–0.110	–0.179	–0.317**	–0.131	–0.311**	–0.312**	–0.391**

** *P < 0.01;* * *P < 0.05*

Table 14. Correlation between professional titles and work satisfaction

	Economic income	*Labor intensity*	*Physical conditions*	*Relationship with colleagues*	*Relationship with parents*	*Relationship with children*	*Leadership and management*	*Work stress*	*Social reputation*	*In-service development*	*Overall satisfaction (self-evaluated)*	*Overall satisfaction (calculated)*
Professional titles (Spearman)	–0.152	–0.173	–0.042	–0.096	–0.034	0.038	0.087	–0.261**	0.034	–0.169	–0.117	–0.200*

** *P < 0.01;* * *P < 0.05*

Table 15. Correlation between educational background and satisfaction

	Economic income	*Labor intensity*	*Physical conditions*	*Relationship with colleagues*	*Relationship with parents*	*Relationship with children*	*Leadership and management*	*Work stress*	*Social reputation*	*In-service development*	*Overall satisfaction (self-evaluated)*	*Overall satisfaction (calculated)*
Educational background (Spearman)	0.056	0.103	0.158	–0.266**	–0.169	–0.220*	–0.100	0.063	0.010	–0.026	–0.131	–0.088

** *P < 0.01;* * *P < 0.05*

Variance analysis suggested that teachers in different preschools have significantly different levels of satisfaction in terms of economic income ($F = 7.267$, $P = 0.001$), labor intensity ($F = 16.848$, $P = 0.000$), relationship with colleagues ($F = 11.217$, $P = 0.000$), relationship with parents ($F = 4.451$, $P = 0.014$), relationship with children ($F = 3.533$, $P = 0.033$), working stress ($F = 15.750$, $P = 0.000$), social reputation ($F = 3.869$, $P = 0.024$), in-service development ($F = 8.576$, $P = 0.000$), and overall satisfaction ($F = 3.327$, $P = 0.040$). Chi-square test also showed a significant difference ($P < 0.01$) in the satisfaction in terms of income, labor intensity, relationships with colleagues, work stress, and in-service development. The satisfaction of relationship with children is also significantly different ($P < 0.05$). Further mean comparison revealed that the levels of satisfaction in terms of economic income are as follows: private preschools (3.00), public affiliated preschools (2.74), and public independent preschools (2.21). The levels of satisfaction of labor intensity are as follows: public affiliated preschools (3.90), private preschools (3.69), and public independent preschools (3.00). The levels of satisfaction in relation to relationship with colleagues are as follows: public affiliated preschools (4.61), private preschools (3.61), and public independent preschools (3.23). The levels of satisfaction in terms of relationship with parents are as follows: private preschools (4.11), public affiliated preschools (4.06), and independent public preschools (3.77). The levels of satisfaction in terms of relationship with children are as follows: public affiliated preschools (4.35), private preschools (4.25), and independent public preschools (4.02). The levels of satisfaction in relation to work stress are as follows: public affiliated preschools (3.87), private preschools (3.75), and independent public preschools (3.05). The levels of satisfaction in relation to social reputation are as follows: private preschools (3.89), public affiliated preschools (3.87), and independent public preschools (3.49). The levels of satisfaction in terms of in-service development are as follows: private preschools (3.81), public affiliated preschools (3.65), and independent public preschools (3.14). The overall levels of satisfaction are as follows: private preschools (3.94), public affiliated preschools (3.84), and independent public preschools (3.58).

DISCUSSION

The satisfaction in terms of economic income among rural preschool teachers is the lowest. However, it is not a determinant of overall job satisfaction.

Data derived by this study suggested that the job satisfaction of rural preschool teachers is above "general" and close to the "satisfied" levels. This observation can be explained mainly by the measures that have been taken by the government in promoting preschool education development. In 2011, the national government launched the "Three-Year Project of Preschool Education," which implemented a series of reform measures such as the large-scale national training programs for rural preschool teachers. To some extent, these policies have improved the working

and living conditions of rural preschool teachers. However, the economic income problem of rural preschool teachers remains severe, and the satisfaction in relation to this dimension is the only one below 3 (i.e., tend to be not satisfied). During the interview, several teachers expressed that, "if my job has any unsatisfactory aspect, it is our income. It is too low and never proportional to our contribution." This observation is consistent with those of several studies (Jiang, 2009; Yu, Huang, & Liu, 2013; Yang, 2012).

The degree of satisfaction in relation to economic income is low, but it is not a determinant of overall job satisfaction. The correlation analysis of the dimensions showed that the main factors closely related to economic income satisfaction are labor intensity, physical condition, working stress, and in-service development. The correlation with various interpersonal dimensions is insignificant. Therefore, improving the economic income of teachers can improve their overall job satisfaction and to a certain extent, their satisfaction in relation to closely related dimensions. However, economic income improvement cannot directly improve satisfaction in terms of all the interpersonal dimensions. Preschool teachers, as most have expressed in the interviews, did not choose the job for the sake of economic interests. "The children are the reason why I still hold onto this job. I like children. I like their innocent and naive faces. Being with children is so enjoyable." Therefore, to improve the job satisfaction of rural preschool teachers, we should not only improve economic income level, but also focus on the nature of preschool education by paying more attention to the social interactions and affections of the teachers.

Enhancing and improving leadership and management system have an important value in the improvement of the job satisfaction of teachers.

Correlation analysis showed that the highest correlations related to overall satisfaction are achieved by the dimensions of in-service development, leadership and management, and social reputation. Preschools can control and change in-service development and leadership and management, whereas controlling and changing social reputation condition require the collaboration of the entire society. The analysis of the differences among teachers showed that other factors, such as title, education, and number of working years, have a certain influence on job satisfaction. Nonetheless, teachers in different preschools have different levels of job satisfaction, which can be attributed to the available resources in preschools with different leadership and management styles.

Studies have pointed out that organization atmosphere is the direct influencing factor of job satisfaction among teachers (Jiang, Qian, & Yan, 2006), and that building the organizational atmosphere directly depends on the leadership and management level in preschool. A number of studies that focused on leadership style and organizational climate have affirmed the influence of leadership and management on the job satisfaction of teachers. High level of leadership and management centers on the living conditions and affection needs of preschool teachers, through which accountabilities and self-efficacies are improved, pressure

is reduced by improving the abilities of teachers, and unnecessary work burdens are decreased. The satisfaction of teachers can be influenced positively by positive interactions with families and by extending external resources.

The satisfaction over in-service development has significant positive correlation with all other aspects. Such satisfaction not only helps improve the professional abilities of teachers, but also improves their job satisfaction. From a realistic point of view, usually, teachers with higher social status and greater influence are easily to obtain opportunities for in-service development (i.e., take part in training program), and in-service development strengthen their status and influence deeply. For this reason, the opportunity for in-service development can be regarded as a special "well-being" or reward for teachers. It is not only a confirmation of one's abilities and role status but also a means to improve the job satisfaction of teachers as supported by the extension of external resources, particularly the supportive social network.

PRESCHOOL BILINGUAL EDUCATION IN MINORITY AREAS

Results

We found that most teachers in Kindergarten A have unclear understanding of the bilingual teaching. Some teachers believe that the purpose of bilingual education is strongly utilitarian, and most of them have neglected the indirect purpose of bilingual teaching, that is, reaching the goal of social reform by implementing bilingual education. The teachers' understanding on bilingual education in Kindergarten A is bound to affect the Uygur–Chinese bilingual education practice.

The Uygur–Chinese preschool bilingual teaching in Kindergarten A includes not only the traditional customs and culture of the Uygur, but also those of the other ethnic minority groups in the Xinjiang Autonomous Region. Such teaching style fully reflects the concept of multicultural education. The style can cultivate the multicultural consciousness of children, help them determine the difference between the national culture and other cultures, eliminate prejudice against minority cultures, and respect the national culture and emotion. In addition, the bilingual education contents in Kindergarten A cover five major areas, but lacks specific teaching materials for the children.

Kindergarten A fully utilizes teaching, life, and game activities to implement bilingual education in Uygur–Chinese preschool bilingual education, especially through the theme activity and thematic network in the teaching activities, which are systematic and flexible, close to children's life, and able to arouse the interests of preschool children in bilingual learning.

Problems

First, the understanding of the target for bilingual education of teachers in Kindergarten A is shallow. Several teachers have vague understanding of preschool

bilingual education. Most of them understand the purpose of bilingual teaching as utilitarianism. The realization of most teachers is limited to the direct target of bilingual education, especially the goal of language learning. Such realization has failed to integrate the indirect target of bilingual education.

Second, Kindergarten A lacks suitable teaching activity books. The current activity book is *Kindergarten Immersion Field Course,* published by the Nanjing Normal University. The book is the introduction to the curriculum activity books. However, several teachers have realized that the books they use for kindergarten activities poorly reflect Xinjiang cultural, geographic, and ethnic characteristics; such reflection is devoid of the realities of the Uighur children. This difference between book representation and reality leads to the disinterest of the children in learning and restrains their enthusiasm and initiative to learn Chinese. Some teachers have expressed that the teaching conditions and environment creation in the textbook design are different from the actual situation of the autonomous region. Thus, the specific design of preschool bilingual teaching is unable to meet the requirement of an activity book and reduces the efficiency of the activity book to a certain extent.

Third, teachers in Kindergarten A lack self-reflection on teaching activities. The old saying, "Learning without thought means labor lost, thought without learning is perilous," emphasizes the importance of teachers' reflection in bilingual teaching activities. Reflection has an important role in goal setting, choice of teaching content, teaching organization and implementation, and other aspects. In addition, writing a reflection log is an effective way to assist adult learning, as well as promote the reflection and professional growth of pre-service and in-service teachers. Reflection can promote the connection among various elements to help teachers understand the significance of teaching behavior, which consequently allows for flexibility in their teaching strategies. Guiding preschool teachers in conducting professional reflection can promote the interaction quality between kindergarten teachers and children or among children and can lead to the fulfillment of the purpose of professional growth.

Kindergarten A pays attention to teachers' self-reflection of teaching activities and encourages teachers to write a reflection log. However, the reflection log of most teachers is not systematic. Writing reflections is optional, and most teachers fail to reach a valid reflection.

Perspective of Teachers on ECE Equity

Challenges of ECE equity from the perspective of teachers. The concerns of the interviewed kindergarten teachers on ECE equity are at the macro and micro levels, which denote the overall equity and the individual equity in educational resources (e.g., capital, environment, and teachers). The teachers' ideas cover equal rights, equal opportunity, and compensation for the weak. The most important issues that the teachers mentioned are discussed below.

The difference or gap between different areas, especially between urban and rural areas, is obvious. In the interview, 23 respondents think that the current

urgent problem in ECE is the inequity between urban and rural areas. This inequity can be reflected by the following ideas: "the degrees to which ECE is valued are totally different," "there are huge gaps between urban and the rural areas relating to environment and facilities, as well as teachers," "parents' attitudes toward ECE are quite different," and "advanced educational concepts cannot be implemented in remote areas."

Educational inequity, as a result of economic conditions, must be seriously focused on. A total of 18 respondents (31%) specifically referred to the direct relation between different family economic conditions and different education qualities. The statement of the teachers include the following: "the problem of availing expensive kindergarten still exists," "children from different family incomes receive different education," and "the rich families send children to good kindergarten, poor families have no choice, and some poor families opted to have their children at home."

ECE is undervalued and even suffers discrimination. A total of 10 respondents (17.2%) believe that the outstanding problem is that ECE, as a whole, is generally discriminated. The thoughts of some teachers are as follows: "our society does not pay attention to preschool education, some people have prejudice on preschool education," "we teachers are deemed to work as nannies; thus, we are not accorded recognition," "the status of preschool teachers, professional title, and wages are very low," and "the work and pay of preschool teachers are out of proportion."

Discussion. The National Medium- and Long-term Educational Reform and Development Plan (2010–2020) clearly puts forward the following objectives: "to promote equity," "to basically universalize preschool education," and "to focus on development in rural areas." The Chinese government introduced a package of reform measures. From 2011 to 2014, all counties implemented a three-year plan for developing ECE, which has attained significant achievements. The Ministry of Education believed that the three-year project has four major achievements, namely, increase in preschool education resources, increase in investment in preschool education, increase in the number of kindergarten teachers and the corresponding enhancement of their strengths, and considerable improvement in kindergarten quality. In the present study, we have determined that these achievements have been acknowledged by preschool teachers, especially the achievement in educational equity between genders and among ethnicities, as well as in children with special needs. However, at least two important issues must be reflected seriously. One, inequity exists between areas and between among families with different economic levels. Two, teachers generally think of themselves as a "very fair teacher." However, their consciousness and potential as advocates of educational equality can still be improved.

The problem of inequity between urban and rural areas, which make up the core issue in equity recently in China, is closely linked to economy. Therefore, effective resource allocation strategies must be implemented to attain educational equity. Increasing public finance to preschool education and providing weak areas and

kindergartens with additional resources are reasonable measures. At the same time, expanding the coverage of non-profit kindergartens and improving their quality are of positive significance to the goal of solving the problem of equity at the macro level. At the micro level, teacher education and training must be strengthened to improve their individual abilities and awareness, which should lead toward the effective promotion of educational equity through daily activities.

CONCLUSION AND SUGGESTIONS

Conclusion

Reflecting ECE in Western China from the perspective of equity and quality requires directing attention to the differences in kindergarten curriculum (interpersonal interaction and operating activities), teacher abilities and competency, child development (school readiness), and other quality dimensions between rural and urban areas (including the difference between downtown and countryside in the same county). However, the living conditions of teachers should be viewed from the humanistic perspective and should be given attention to explore the effective path to improving the overall condition.

Governmental policies and reforms, especially the three-year project from 2011 to 2014, have obtained significant achievements in terms of narrowing the gap between urban and rural areas and improving the overall ECE quality. However, the difference in quality between city and rural areas in Western China remains obvious and serious. Within the same county, downtown areas are superior to rural areas regardless of the performance of children in mathematics or operating activities, which highlights the resources and guidance abilities of the teachers. Public demonstration kindergartens are better than other kindergartens. Notably, the job satisfaction of urban and rural teachers has no significant difference. Overall, the satisfaction of preschool teachers with income is low, which significantly influences and restricts the power of enthusiasm and professional development of teachers.

The differences in children's development stem from family background and kindergarten quality. Kindergarten quality is derived mainly from material resources and teachers' professional quality and restricted by factors such as their survival state and satisfaction. Therefore, to develop ECE in West China further, we must first solve the problem of resource equilibrium configuration. Specifically, we must address the allocation of teacher-related resources, such as teacher preparation, wages and benefits, training, and education, as well as the allocation of material resources, such as financial aid, equipment, and material purchasing and update.

Suggestions

The following suggestions should be considered to enhance the overall ECE in Western China:

Allow third parties (i.e., research teams led by well-known professionals) to review ECE independently and publish reports periodically or annually that will pave the way for the formation of a long-term ECE evaluation mechanism at all government levels, especially at the provincial level.

Formulate a targeted special action plan with a time limit to resolve the outstanding issues in critically problematic areas, such as the status of rural affiliated kindergartens and the satisfaction of teachers with their income.

Take the county as a unit within a province and the educational institution as a unit within a county and provide supporting funds and periodic supervision to an underdeveloped unit. Without satisfactory improvement within a certain period, punitive measures against responsible persons should be enacted.

Strengthen the training for pre-school education administrative department managers and staff. Improve the system of rewards and penalties.

In 2014, the Chinese Ministry of Education prepared to commence the second round of the Three-Year Action Plan for Early Childhood Education. The Ministry indicated clearly in the draft that the basic principles of the second round should highlight public welfare and inclusion, and that the focus should be on sustainable development and strengthening the government's responsibility at all levels. Looking ahead, the development of the preschool education in Western China is expected to keep pace with the development of the overall pre-school education in China. The central government is increasing support to poverty-stricken areas and weak links under the overall policy design, which the provincial integrated efforts will continue to strengthen. We believe that preschool children in Western China can receive equitable and high-quality education in the future by further clarifying the public property of preschool education, defining the governments' responsibility, increasing public financial investment, enhancing the quality of monitoring and evaluation, and promoting the teacher training and income distribution further.

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16. DEVELOPMENT OF SPECIAL AND INCLUSIVE EDUCATION IN WESTERN CHINA

INTRODUCTION

During the past three decades, the international community has witnessed China's enormous economic boom which has led to increased integration into the global economy and dramatic changes in every aspect of livelihood (Ross & Lou, 2005). Political priorities were given to transferring the traditionally rigid and elite education system into a more responsive and equitable one to meet the challenge of global economic competition (OECD, 2011). Reforms on education started from early 1980s and continued into the new centuries, and brought substantial changes to special education services (Deng & Poon-McBrayer, 2012).

Education for children with disabilities was regarded as the weakest part of the Chinese compulsory education initiative. Less than 7% of these children attended schools in 1988. Thus, China initiated a nationwide movement towards inclusive education called 'Learning in Regular Classrooms' (LRC) in the mid-1980s to expand enrollment of children with special educational needs into the school system in response to its compulsory education mandate (Deng & Poon-McBrayer, 2004). This led to a quick increase in school enrollment of children with special educational needs. Currently, nearly 80% of children with disabilities attend schools with most of them studying in regular schools through the LRC model. Consequently, a three-level service delivery system consisting of special schools, special classes, and LRC (with the LRC as the major initiative) to serve students with disabilities dominates special education service delivery (Xiao, 2007). Special schools representing the most typical segregated special education services and LRC being widely acknowledged as the Chinese model of inclusive education are perceived to form a parallel special education system in China. There have been few debates on whether this system should continue or one form or the other should remain as both resulted from the deinstitutionalization movement (Deng & Poon-McBrayer, 2012).

Though big strides have been made in expanding school access, the development of special education services has been confronted with the lack of relevant knowledge and skills among teachers, instructional resources, and social awareness. Of all the Chinese regions, the challenges in the western areas are found to be much more severe due to ethnic diversity and economic disparity between the rural and urban areas (Deng & Holdsworth, 2007).

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The Western China refers to the western areas of China, covering six provinces: Gansu, Guizhou, Qinghai, Shaanxi, Sichuan, and Yunnan; one municipality: Chongqing; and three autonomous regions: Ningxia, Tibet, and Xinjiang. The region covers an area of 6.81 million square kilometers (71% of total land mass) with a population of over 350 million people (28% of total population). The region lags behind other parts of China in social and economic development, accounts for half of the national average in the Gross National Product (GNP), despite having vast stretches of land and rich natural resources (Chan & Wang, 2008).

The Chinese government has provided a great deal of political and financial support to these regions in an attempt to balance the disparities, especially in social development and, more recently, education. These actions have increased social attention and resources to western China to reduce educational inequity arising from poverty, lack of social awareness, and resources shortage. This chapter will focus on the progress of and challenges in developing quality special and inclusive education programs in Western China, analyze the underlying socio-cultural contexts that shape the current service delivery models and practice, and offer recommendations for future development of special and inclusive education.

SOCIO-CULTURAL BACKGROUND OF THE WESTERN CHINA

The Western China has often been described as a remote, barren, vast, and beautiful area. Its population consists of 44 ethnic minorities including Mongolians, Hui, Tibetan, and Uygur. This has made the region distinguished by its diverse cultural traditions and religions. Although the Western China occupies over half of China's land mass, its social and economic development has been lagging behind other parts of China. The Open and Reform Policy of the 1980s started from the coastal regions of eastern China (Deng, 2009) Consequently, the economic weight of eastern region in the whole national economy increased from 50% in 1980 to 58.8% in 2004 while that of the western region decreased from 20% to 16.8% respectively, and in 2009, the total economic output of the Western region was only 19.9% of the national GDP (Yao & Xu, 2014). Over 26 million people in the country lived below the poverty line in 2004 and 60% of them were in the western region (Zhang & Hou, 2010).

In 1999, the Chinese central government decided to accelerate the development of Western China and a guideline was produced and carried out (Yao & Xu, 2014). The national government report of 2000 decided to implement "Strategies for the Development of Western China" and a leadership team was created at the State Council level to coordinate relevant works (Yao & Xu, 2014).

Though the economic imbalance between the eastern and western regions is not eliminated, the government's effort has resulted in enormous economic growth in the western regions. The annual growth of GDP in the western region has begun to exceed the national average from 1998 on and has averaged 11.42% growth per year between 1998 and 2008, higher than the national level of 9.64%. The GDP growth rate of the western region reached 14.1% in 2011 and 12.48% in 2012, exceeding

that of the eastern region for the sixth consecutive year (Yan & Chen, 2012). Its GDP now accounts for 19.75% of the national total (Yao & Xu, 2013).

China made tremendous efforts to universalize education for all after the mandate of the Compulsory Education Law in the People's Republic of China in 1986. By the year of 2000, the goal of universalizing nine-year compulsory education was achieved with 99.1% at the elementary and 88.6% at the junior high school levels (Ministry of Education of Peoples' Republic of China, 2000). However, many children without disabilities did not attend school due to poverty, a lack of transportation, or negligence in large parts of the rural western region. With regard to the national goal of achieving "two basics" (basic nine-year compulsory education and basic illiteracy elimination among young and middle-aged people), 410 of 431 counties in the country that have not reached this goal were in the western region (Wang, 2003). At any rate, the rate of children receiving compulsory education has increased to 77% in the western region in 2002.

In 2003, the State Council of Peoples' Republic of China promulgated the Decision on Further Strengthening Rural Education, which mandated that China would strive to achieve the goal of nine-year compulsory education for all with improved quality by 2010 while recognizing that the challenge would be with the rural western region (State Council of People's Republic of China, 2003). Thus, the State Council published a new program, Two Basics Plan of the Western Region of China (2004–2007) (State Council of the People's Republic of China, 2004), attempting to build more boarding schools, developing online education, training more teachers, and providing more subsidies to rural students in Western areas. It was reported that 368 of the 410 counties reached the goal of "two basics", and the rate of universal education increased from 77% to 98% by 2007 (Xinhua News, 2007).

PROGRESS OF SPECIAL EDUCATION IN THE WESTERN CHINA

Making public schools accessible to children with disabilities who were denied education has been widely acknowledged to be the most difficult and important mission for the universalization of education in the western region, the symbol of the realization of the ambitious goal of universal education for all school age children in China (Wang, 2003). A few key measures have been put into practice to expand special education services for children with disabilities along with the implementation of "Strategies for the Development of Western China".

Establishing More Special Schools

When the full inclusion advocates seem to win the inclusive education debate in the international communities with the closure of many special schools, China has made efforts to develop special schools and LRC in a parallel manner. The most recent policy document, *Guidelines for Mid-term and Long-term Education Reform and*

Development (2010–2020) (State Council of the People's Republic of China, 2010) mandated that at least one special school be established in each city or county with a population of 300,000 or more, and this goal should be reached nationwide by 2020.

In addition to accepting students with disabilities who are not eligible for or being rejected regular education placement, another major role of special schools is to be the 'backbone' of the local special education system by serving as resource centers to provide technical assistance to LRC programs including disability identification, teacher training, consultation, professional support, and quality supervision (Xiao, 2007).

However, the number of special schools was still limited in the western region. In 2006, 74 of the 326 cities at prefecture levels in China had not set up special schools and 65 of them were in the western region and 405 of the 493 counties with a population exceeding 300,000 without special schools were in the western region (Yang, 2013). Meanwhile, special schools in the western region generally failed to play the role of supporting LRC due to a lack of resources, professional expertise, and coordination between special and regular education systems.

The Ministry of Education of China initiated the Project on Developing Special Schools in Mid-Western Areas of China in 2008 in collaboration with the National Development and Reform Commission of People's Republic of China. This project invested RMB 5.45 billion on establishing 465 new special schools, renovating 695 existing ones by 2020, and purchasing necessary teaching materials and rehabilitation equipment for schools in the western region (Ministry of Education of People's Republic of China, 2008). These actions have increased social attention and resources to western China to reduce educational inequity arising from poverty, lack of social awareness, and resources shortage. With the injection of RMB 600 million, the first stage of the project was accomplished in 2010 to establish 190 new special schools and enroll 108,000 students in special schools of the western region (Sohu News, 2007). The increase can be seen in an example from the Xinjiang Uygur Autonomous Region. There were only nine special schools in that region in 2007 with a population of nearly 22 million and 1.07 million of them having disabling conditions. The project built 23 new special schools and renovated seven existing ones together with new equipment (Zhang, 2013).

Developing More LRC Programs

Lo (1998) pointed out that one of the benefits of inclusion is to expand educational opportunities for all through enrolling more students with disabilities in regular schools, especially in regions where economic constraints have prevented the establishment of more special schools. This is exactly what happened in Western China. Attending the local regular schools through LRC programs has often been the only available choice for students with disabilities there because special schools may be difficult to access due to inconvenient transportation and resource constraints. For example, about 61% students with disabilities in Guangxi Zhuang Autonomous

Region were studying in general schools in 2006, and then increased to 74% in two years (Tang & Feng, 2009). In Xinjiang Uygur Autonomous Region, 70% of students with disabilities were enrolled in regular schools in 2011 (Zhang, Guan, Jia, Su, & Zhao, 2012). In Sichuan province, over 75% students with disabilities were included in regular schools in 2007 with 15 resource classrooms established to support students with disabilities from preschool to high school in Xinjin county of this province which was recognized as one of the Outstanding Institutions for LRC Programs at the national level (Zhong, 2013). Thus, the special education service model via "Learning in Regular Classrooms' as the major strategy with support from special schools was gradually formed in the western region.

Training of Special Education Teachers

In the last three decades, China has been developing its special education in an accelerating speed to cater for the needs of a large number of children with disabilities who had never been served by school systems before. According to the national statistics, 43,697 full-time teachers were employed in 1,853 special schools but no figures on inclusive education teachers were available because of the absence of qualification requirements (Ministry of Education of People's Republic of China, 2013). Zhao (2012) estimated that only 55% of special school teachers are qualified teachers with relevant professional training. Thus, lacking qualified special education teachers is a universal challenge to all special schools in China. The situation is more severe in the western region with qualified teachers constituting only 14.3% of the teaching force (Gu & Tan, 2004).

In 2012, Ministry of Education of China published a special document, Regulations on Strengthening the Training of Special Education Teachers (Ministry of Education of People's Republic of China, 2012), which stipulated the following:

a. The "National Teacher Training Program" initiated in 2010 by Ministry of Education and sponsored by Ministry of Finance to support the training of special education teachers;
b. A training plan of not less than 360 hours, combining online and face-to-face learning modes, to be provided to every special education teacher in 5-year cycles;
c. Local authorities to organize training sessions to special school teachers and inclusive education teachers as appropriate.
d. A systematic mechanism to train special education teachers to be developed to replace the immediate and ad hoc training in the past.

In addition, the Chinese government has been strengthening pre-service special education teacher preparation programs by setting up new special education majors in higher education institutions since 2008. Fewer than 20 special education programs to train about 1000 qualified special education teachers were available in higher education institutions before 2008 but the number boosted to 61 and enrolling 7,260 students in 2014. The Chinese government has invested RMB 125 million

to support the development of special education teacher training programs in 25 higher education institutions since 2010, and many higher education institutions immediately developed relevant programs (Ji & Zhang, 2014).

In order to move forward with teacher training in the western region, the "National Teacher Training Program" initiated a special "Special Education Training Program for Western China". This program has trained over 4,000 special education teachers since 2010 and it is expected to accomplish the training of all special education teachers in the western region by 2016.

CHALLENGES FOR FUTURE DEVELOPMENT

Despite recent governmental efforts to bring changes, Western China seems to face challenges in all aspects of special education that need to be addressed within its specific socio-economic situation. The challenges can be summarized in three domains.

The first domain is the unfavorable social culture of welfare rather than education for children with disabilities. The Confucian ideology has served as the social foundation for centuries in China and created a hierarchic social structure that people behave in society according to his or her social status (Deng & Poon-McBrayer, 2004). Under such cultural traditions, people with disabilities have often been kept at the bottom of the social hierarchy. A culture of sympathy rather than education has been adopted to address needs of those with disabilities in China (Yang & Wang, 1994). The impact of this tradition has been particularly profound in the western region of China which is more closed to the outside world, and still exerts its influences on the attitudes and ways of reacting to disability today. Thus, in the vast rural areas of the western region, the traditional view of education for the disabled population as unnecessary is still prevalent. These individuals are expected to either stay home raised by families and supported by the government or learn minimal skills to survive. For example, learning to be fortune tellers by the blind and to do handcraft for those with deaf were popular (Ye & Piao, 1995). Accessing education for children with disabilities has not been a priority in the western region.

The second domain is the severe shortage of special education knowledge and skills. The number of special schools and qualified teachers is still low as presented earlier. It is widely recognized that serving as special education teachers has not been perceived as a favorable career goal in China since the existing discrimination toward disability to some extent has been transferred to teachers and the remuneration is not encouraging (Deng, 2009). Many special schools have experienced high staff turnover, and teachers reported a high percentage of serious burnouts (Zhao, 2012). Both students with severe and multiple disabilities in special schools and those with mild and moderate disabilities attending inclusive education programs require different types of therapy and professional help. Despite recent development in expanding education opportunities, the provision of such professionals is almost nonexistent right now in the western region.

The third domain is the scarcity of resources. Although the Chinese government has accelerated financial support and development programs in the western region in recent years, the development of special education still lags behind other regions due to its adverse socio-economic conditions. Many children with disabilities were from rural families in extreme poverty, and thus could not afford school expenses such as traveling to and living in the special schools which are often located in big cities (Deng & Holdsworth, 2007). Moreover, teachers of special schools were often not fully paid for their work and schools lacked basic teaching materials and rehabilitation equipment, causing lower instructional quality for children with disabilities (Liu, 2007).

CONCLUSION

China has accelerated special education services since the 1980s with its reform policy taking effect. The expansion of special and inclusive education programs has made education accessible to more children with disabilities to align with China's ambitious goal of universalizing basic education for all. The most difficult 'nut to crack' to realize this goal is in the western region of China, the least developed areas of China in social and economic development. Education for children with disabilities in this region thus faces severe challenges in negative social attitudes, knowledge and skill deficiency, and resource scarcity despite recent progress. It is expected that the challenges could be better addressed with China's economic reform going on and creating more wealth which will bring more investment and support to the Western China.

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17. CHANGING UNIVERSITY GOVERNANCE

A Case Study of a Top University in Western China

INTRODUCTION

University governance reform has become a focus of higher education reform in the Chinese Mainland. Recent policies have emphasized academic self-governance over issues related to scholarship, and the development of a modern university system. Compared to eastern China, western China is less developed in terms of the number of universities and their quality. However, the Chinese government has recently prioritized developing several universities in western China, and has provided the financial aid to develop several schools into world class universities. As part of the reform, various policies were promulgated to enhance professor participation in decision making. These have resulted in a new set of opportunities for academics, particularly for those professors who can attend various committees and have their voices heard.

This research is guided by three major questions:

1. How have the new professor committees affected teacher participation in the process of decision making?
2. How have academics perceived the consultative process?
3. How has decision-making authority been exercised within the university, the faculties and at the department level?

These questions focus on the major changes that have resulted from China's new policies designed to modernize the higher education system. Using qualitative methods, and with reference to the questions listed above, we conducted in-depth qualitative research at a sample university by purposive sampling. The sample university is a top university in western China. It was one of the first batch of the 'Project 985 and 'Project 211'. Under these projects, the government gave special attention and additional resources to this university, with the aim of developing it into a world class university in western China. 23 academics in four separate departments (Management, Information Technology, Education, and Physics) were interviewed. Each department's level of resources depends on their marketability and ability to generate extra income. In-depth interviews with selected academics illuminate varying opinions among departments with different resources.

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This paper consists of six parts. Following the introduction, the current debate on university governance is reviewed. The third section is a summary of the major governance reforms in Chinese higher education. Fourth, the research method is discussed. Next is a discussion of the research findings, answering the three questions posed above. Finally, the conclusion offers a summary of the major findings of the research.

Major Issues of Shared Governance in Higher Education

Governance is a process devised to achieve particular outcomes (Tierney, 2005). University governance refers to the process of policy making and decision making within higher education. It is a multi-level phenomenon including various bodies and processes with different decision-making functions. Certain entities tend to have authority over specific kinds of decisions (Kezar & Eckel, 2004). Governance includes the formal and informal arrangements of power and authority that enable decisions to be carried out (Rosovsky, 1990). Shared governance refers to the structures and processes through which academics, administrators, and other campus constituents make collective institutional decisions (Association of Governing Board, 1996; IMHE/OECD, 1999). Shared governance is characterized by participation in decision making, consensus building, a community of peers, and a high degree of personal interaction (Berdahl, 1991; Goodman, 1962; Millet, 1962). Trow (1998) describes the purpose of shared governance through two main principles: maximizing the university's autonomy, and allowing for the pursuit of excellence. Shared governance helps ensure that the university remains free from political restriction, enabling academics to have full freedom to produce knowledge and pursue excellence (Trow, 1998).

In the 1960s and 70s, some scholars used a structural approach to suggest that the key to understanding governance was to examine organizational structures, such as lines of authority, roles, procedures, and bodies responsible for decision making (Kerr, 1963; Gross & Grambasch, 1974). Some studies looked at how political processes operated, such as Cohan and March's work (1974) examining the human dynamics of governance. In Riley and Baldridge's (1977) political model, people throughout the organization are central to the process. However, some scholars have argued that policy emerges from interest groups, conflict, and values, and that they are embedded in people, not structures. A cultural approach acknowledges the deeply human dimension of governance. Lee (1991) conducted a case study from a cultural perspective, examining how the history of governance, faculty attitudes toward the committee, quality of faculty choosing to participate, and leadership continuity all affect the governance process. These studies found that shared governance does not only come from the formal distribution of duties and authority (Trow, 1990). They argued that more concern should be placed on how different academic committees are involved in formal and informal decision-making

processes, and how academics interpret the influence of different committees in the above processes (Tierney, 2005).

Tierney (2005) examined the major elements of shared governance (including purpose, venues, and the communication process), arguing that the purpose of shared governance should be discussed as a symbolic and interpretive process devised to achieve certain aims. Academics ought to be involved in the processes taken to ensure the protection of academic freedom. Teachers should also be involved in defining the criteria of academic quality (Tierney, 2005).

The scope and nature of participation by different committees, specifically how a committee makes a decision on a particular issue, is also of importance. Committee influence can be understood by how its influence is used in various channels. We should not only pay attention to the formal allocations of responsibility and authority (Trow, 1990), but also informal arrangements and processes. An in-depth investigation of the process of formal and informal communication should consist of the understanding, decoding and reinterpreting of symbolic meanings among committee members (Tierney & Minor, 2004).

Tierney and Minor (2003) delineated three major modes of decision making. Fully collaborative decision making refers to faculty and senior academic leaders making decisions jointly, with consensus as the goal. In consultative decision making, faculty opinions and advice are sought out, but authority remains with the senior academic leaders and trustees. It revolves around information sharing and discussion rather than joint decision making. Distributed decision making refers to decisions being made by a discrete group responsible for specific issues. Under this mode, faculty members have the right to make decisions in certain areas, and the senior academic leaders and the board in others (Leach, 2008).

Some scholars claim that by employing shared governance, the university risks disruption or failure, as it would face an inability to quickly react to a changing environment. However, some scholars still believe in shared governance (Masefield, 1946; Birnbaum, 2004a). They raise the issue of whether we simply want to make governance more efficient, or we want to preserve the academic institution and continue to believe in the importance of shared governance (Birnbaum, 2004b). This study will put the above discussion in the specific context of the Chinese Mainland, to participate in the discussion on academics' perceptions on university governance.

Reforms of University Governance in the Chinese Mainland

In recent years, the Chinese government has stressed the modernization of university governance. A review of the history of professor participation in university decision making shows that policy papers have stated this rhetoric since the 1970s. In 1978, the trial policy "Temporary work regulations for key point universities in the

nation" indicated that the universities should establish an Academic Committee. Under the leadership of a vice chancellor and vice principals, this committee was to give suggestions for a university development plan, research work and post-graduate student development, inspection and assessment of research, assessment of post-graduate students' theses and research designs, the promotion of professors and associate professors, the organization of academic conferences, and academic exchange at the domestic and international levels (MOE, 1978).

Before the late 1990s, governance approaches were more centralized. By the late 90s, policies began to highlight professor participation in decision making on academic issues. In 1998, the "Laws of higher education" clearly stated that the Academic Committee should assess academic issues such as the establishment of majors and specializations, teaching plans, research plans, and teaching and research output (CGPRC, 1998). In 2010, "The developmental plan of mid- and long-term educational reform in the nation (2010–2020)" gave directions to investigate instilling "rule by professors on academic issues" (*jiaoshou zhixue*). This policy placed great attention on "fully actualizing the function of the Academic Committee over the establishment of specializations, the evaluation of research, and academic development" (SCPRC, 2010). It was clear that by the 21st century, "rule by professors on academic issues" had emerged as a key concern in university governance. Starting from the 21st century, media discourse concentrated on the development of "professor committees" to enhance professor participation in academic issues. Several universities began an experimental professor committee phase. Reports by China Education News recorded and promoted their experiences.

In 2014, a new policy, "Regulations on academic committees in universities" reiterated the major purpose of the Academic Committee and then further delineated the roles and construction of the committee, with the goal of enhancing professor participation in the process of decision making. The policy indicated that the Academic Committee should serve as the highest level committee for academic issues, and should be mainly responsible for coordinating the consultation, assessment, discussion and decision making on academic issues. The Academic Committee should have independent authority to make decisions on academic plans, resource allocation among specializations, teacher and teaching appraisals, student recruitment, and teacher employment. The committee should consist of professors, managerial staff members with professor rank, and a certain percentage of younger teachers. Academic and political leaders could not exceed 1/4 of the membership. Ordinary teachers were not to be less than 1/2 (MOE, 2014).

It is clear that enhancing professor participation in the process of decision making on academic issues has been highlighted in recent years. Before the formal document issued in 2014, education media focused on the establishment of professor committees and "rule by professors on academic issues". How have these professor committees operated in Chinese universities, and how has "rule by professors on academic issues" been implemented? Our study will focus on a top university

in western China to investigate how academics perceived this new governance orientation.

RESEARCH METHOD

In this research, there are three main questions for investigation:

1. How have the new professor committees affected teacher participation in the process of decision making?
2. How have academics perceived the consultative process?
3. How has decision making authority been exercised within the university, the faculties and at the department level?

A qualitative research approach was employed. The researchers conducted semi-structured interviews to collect data at the sample university. University A is a renowned university located in the western region of the Chinese Mainland. In 2014, the university employed 5,569 faculty and staff and had a total of 29,863 undergraduate and graduate students. The school offers 181 doctoral programs, 287 Master's programs and 82 speciality undergraduate programs. The selection of this university was based on purposive considerations. University A, perceived as the top university in western China, is supervised by the Ministry of Education. It was part of the first group of universities included in "Project 985" and "Project 211". In sum, University A is one of the top 33 universities from "Project 985," and has had high expectations placed on it by the Ministry of Education. Among the universities in western China, it has received the greatest amount of resources.

In this study, four departments—Management, Information Technology, Education and Physics—were selected as the sites of investigation. These four departments cover the major areas in the university. Of the four, the Information Technology department had the highest marketability and could often conduct collaborative research projects with enterprises. The Department of Management received resources from its Public Management master's program. The Department of Education also received opportunities to conduct policy research for the government. Compared with the more market-oriented departments in the university, the Department of Physics faced a much greater scarcity of resources. An investigation of the situation in these four different departments can expand our understanding of the work life of academics in departments with varying resources and statuses.

In this research, five to six informants from each of the four departments, for a total of 23 informants overall, were interviewed at University A. The criteria of selection were based on area of study, rank, and length of service. Some interviewees were also involved in administrative work, while others focused solely on teaching. The selection of interviewees with different experiences ensures that the researchers could collect the richest and most relevant data. All interviews were tape-recorded and verbatim transcripts were made for data analysis.

FINDINGS

The sample university claimed it had developed professor committees at the faculty level to enhance professor participation. However, the committees were often never formally constructed, and regular meetings were rare. Academics perceived that it was useless to voice opinions in various committees. Authority was mainly kept at the university level. At the faculty level, decisions were usually made by the Dean or the Joint Committee of the Dean and Party Secretary.

Enhancing Academic Participation through Professor Committees

Although many university leaders advocated for the development of professor committees, several problems emerged. First, the construction and naming of the professor committees remained vague. Second, the faculty-level Teacher Appraisal Committee offered more opportunities for professors to participate but ultimately only served a consultative role. Third, although teacher recruitment was considered a new area for professor participation, professors could only make recommendations to the Joint Committee of the Dean and Party Secretary for consideration.

The naming and construction of professor committees remained vague throughout the process. Informants reflected that the term "professor committee" had emerged in the media a few years ago, and became a slogan advocated by university leaders. However, most informants observed that a formal professor committee never came into existence. In reality, the faculty dean would call for a meeting whenever certain issues had to be raised. Regular meetings for various committees were not held. In recent years, university policy had stipulated that the Dean of each faculty should form a Teacher Appraisal Committee to deal with the issue of faculty promotion, with all professors in the faculty invited to join and discuss. Under the university's advocacy for establishing "professor committees," professors were generally offered more opportunities to participate in decision making over personnel issues. Some faculties formed a committee called the "Teacher Ranking Assessment Committee" to handle the issue of faculty promotions. Most faculties formed a "Teacher Appraisal Committee," which combined the functions of discussing teacher promotion and handling new teacher recruitment issues.

A department head clearly stated that "there is no specific 'professor committee'… all professors should participate in various issues, including proposals made by faculty and new teacher recruitment in particular." Informants described how various pre-existing committees (such as the Academic Committee, Curriculum Committee, and Degree Committee) seemed to now fall under the term "professor committee," allowing the administration to claim that a concrete professor committee had been established. These various other committees also had no regular construction or meeting times. Certain ad hoc committees only had meetings when particular issues arose. Most informants observed that although new professor committee meetings were not regularly held, professors did have more

chances to participate in faculty-level discussions over personnel issues, like new teacher recruitment and promotion.

Second, the Teacher Appraisal Committee at the faculty level only served a consultative role. The committee did allow for professor participation in discussion over promotion-related issues. Most of the professors in the faculty were invited to participate in this committee. Senior academic leaders, like the Dean, Associate Dean, and department heads were also members. During these committee meetings, professors were informed of promotion quotas for the year. If the quota was set at 3, the committee members were tasked with looking at the files of applicants and recommending 3–5 potential applicants for consideration. The selection criteria for shortlisting candidates had to follow the strict criteria set by the university. Therefore, professors reflected that there was not much room for debate, as the university criteria were detailed and rigid. It was clear that this committee existed to play a consultative role, with the recommendation list submitted to the Joint Committee of the Dean and Party Secretary at the faculty level. After the Joint Committee made its final decision, they submitted it to a Teacher Appraisal Committee at the university level.

The new faculty-level Teacher Appraisal Committee also provided an opportunity for professors to participate in faculty recruitment. Department heads would first nominate a few candidates, submitting the recommendations to faculty members. Next, the candidates' documents were distributed to members of the Teacher Appraisal Committee. After collecting feedback from the committee members, certain candidates were shortlisted and invited to give presentations. The entire faculty was invited to attend these presentations, and faculty members were asked to rate each applicant's performance, with final marks then calculated. Next, the Teacher Appraisal Committee met again to discuss the candidates' academic backgrounds and presentations. The committee recommended several applicants to the Joint Committee of the Faculty Dean and Party Secretary for consideration. When procedures were completed at the faculty level, the recommendations were submitted to the university level for consideration. When it came to hiring new colleagues, the Teacher Appraisal Committee ultimately served a consultative role in the decision-making process.

Academics' Perceptions on the Consultation Process

In recent years, although professors have had more opportunities to express their opinions, academics have reflected that power has remained with the administration. Most informants viewed faculty consultation as a mere formality, and felt their voices were not listened to or respected. Academics stated that they usually expressed their views through informal channels.

Informants stressed the excessive power of the administration. Academics perceived that many decisions were made by the Joint Committee of the Faculty Dean and Party Secretary. In short, a few senior academic leaders at the faculty and

university levels held major authority in decision making. An associate professor in the Department of Information Technology described how "sometimes, you receive some forms for consultation… (but many) decisions are made by the (academic) leaders." Another lecturer shared that

> in foreign countries, everyone knows what to do at which level, but in the Mainland we do not (have this understanding)… Therefore, there are management problems… For example, take the funding allocation during the third stage of Project 985… If the Vice Chancellor thinks that your research is not very important, he can cut RMB 5,000,000 from your budget without any consultation… It is very hard to change this reality… I choose to avoid touching this topic.

Many informants clearly indicated that decisions were made by the Dean and the Joint Committee of the Dean and Party Secretary. Decision making was not the business of ordinary teachers, and they saw the will of a few senior academic leaders as much higher than the opinions of ordinary teachers. Because they did not have a chance to become involved in decision making, ordinary teachers felt that they could never change this centralized reality.

In addition, many informants also complained about managerial staff members' level of power. Informants felt that managerial and clerical staff members did not respect the expertise of the academic staff, and described how they would face unfriendly or rude treatment from clerical staff members when they asked for support. An associate professor in the Department of Physics brought up undergraduate student admission as an example. He thought that student admission should be handled by an academic committee that could set admissions criteria and interview procedures, discuss cases, and make the final decisions on student admission. However, student admission was entirely handled by an administrative unit and administrative staff members. The associate professor clearly indicated that "teachers have no (opportunities)…it is impossible for you (the teacher) to participate (in the student admission process)… the administrative unit admits students, and teachers are only responsible for teaching students." He believed that academics should play a key role in the process of undergraduate student admission, rather than leaving it to administrative staff members.

Another associate professor in the Department of Information Technology stated that university teachers are like factory workers, working hard but still unable to reach the requirements of the university. He suggested that how university requirements were set needs further examination. In general, university requirements were made by a few senior academic leaders and many administrative staff members. The associate professor felt that based on the ideals of shared governance, policies should be made after in-depth consultation with academics. The process of decision making should allow for academics' voices and expertise to contribute to policy formation. However, he thought that achieving this ideal would be difficult, as it would require rearranging the work of administrative staff members and would

decrease their control over the formation of policies and the distribution of resources. He perceived that the large number of administrative staff members was a problem tied to university structure. Academics felt unable to change this reality and felt that the dominance of administrative staff members in decision making was a major issue in university governance. The concentration of power in a few senior academic leaders and managerial staff members constructed academics' negative impressions of excessive power within the university administration.

To many informants, the consultation of academics on specific issues was mere window dressing. A professor shared that

> what our faculty put into practice last year was quite good (compared with other faculties). A new proposal was sent to every teacher's email account. You could express your opinions upon receiving the email…you could reflect on…what you need…and they tried to balance (the interests of colleagues with different ranks and positions)…but whether your needs were fulfilled is definitely another issue. They offered a (superficial) process.

Many informants reflected that it was useless to express their views because academic voices were not listened to. Some informants even chose not to say anything, as they perceived that their comments would fall into a black hole, never receiving any response.

Even some committee members felt that they lacked respect from the authoritarian powers during committee meetings. A professor in the Department of Management stated that

> we attend the academic committee…but our opinions aren't accepted. The administration's power is too strong… By administration, I'm referring to the Dean…the regulations they make are very powerful… Once they come up with certain initiatives, they try to consult with us. Whether you agree or not, they turn the initiatives into documents and then implement them… So while it seems that they go through a consultative process with us…and we do raise disagreements… But in the end, how much do they accept and amend (after receiving our opinions)? ... Yes, they just go through the process.

Informants felt disappointed with what they saw as a formalistic participation mechanism. Most informants stressed that decision making was controlled by a few senior academic leaders.

To express their views, academics often turned to informal channels. Informants noted how academic leaders tended to make policies that benefited the leaders themselves. Once these leaders had ascended to their leadership positions, it became easier for them to accumulate social capital and receive funding opportunities which were approved by academic leaders at other universities. These advantages were consolidated further by policy making, such as only recognizing the chief investigator of high prestige research projects. As senior leadership's power consolidated, informants shared that regular teachers lacked a channel through which

to express their views. Because of this, many academics said that they would try and approach the Dean directly if they had suggestions to make. In particular, the more senior faculty felt that they enjoyed good relationships with the Dean and the Party Secretary, and felt confident about talking to them directly. These social connections (g*uanxi*) played an important role in the informal communication process between teachers and the Dean. Academics with better g*uanxi* with their Dean may have had more of a voice than their other colleagues.

Hierarchical Authority at the University, Faculties, and Departments

If we look into the decision-making procedures for personnel issues, first, it was clear that major decisions were made at the university level. Second, there was very limited authority at the departmental level. Third, academics were pessimistic about new opportunities to participate in decision making.

First, key personnel decisions were made at the university level. During the process of teacher promotion, the department head would recommend certain applicants, after which there was a formal procedure at the faculty level. For the recruitment of new teachers, the faculty Dean invited faculty members to observe the applicant's presentation. However, even if a candidate was recommended by the department, the Teacher Appraisal Committee at the faculty level did not have the authority to hire the candidate. Following discussion by the Teacher Appraisal Committee at the faculty level, the faculty made a recommendation to the university. A Teacher Appraisal Committee at the university level also existed, consisting of Deans and Associate Deans from multiple disciplines, such as the social sciences. On the university-level committee, senior professors would compare applicants from different academic disciplines. Certain applicants who were considered acceptable by the faculty level were sometimes rejected by the committee at the university level. A professor in the Department of Information Technology clearly indicated that "the major decision-making authority occurs at the university level."

Second, there was very limited authority at the departmental level. A professor in the Department of Information Technology perceived that authority mainly lay with the Dean. The department head was only responsible for the implementation and distribution of information to colleagues. The professor considered that the department head had little authority but also a high level of responsibility to implement directives. The department head of the same department reflected that

> basically, there is no financial and personnel authority at the department level… in fact…we (department heads) just provide services…like encouraging colleagues, offering certain information (to colleagues)… When new equipment arrives, you let colleagues know how to use it… We can only do these kinds of things…you cannot exceed this level. You don't have the ability to do such things (as decision making).

Many department heads shared that their role was to implement directives from the faculty and university level. The major responsibility of a department head was to write numerous reports to the university, for purposes of accountability.

Third, informants reflected that professors' voices remained weak throughout the decision-making process. When we asked a professor in the Department of Management how she perceived her participation in decision making, she stated

> I don't have too much (of a voice)…take evaluating academic papers (for teacher appraisal) as an example…they (the senior academic leaders) initiate a framework. What do colleagues think? They will try to consult with us…But then, whether we agree or not, they will implement (their framework). They will say that they have consulted with us. How many of the professors' opinions will they accept? Have they amended their original proposal? Ultimately, it is not necessary (for them to listen to colleague's voices and to amend proposals).

Another professor in the Department of Physics said that "the leaders have already made their decisions, but then they may like to consult with you, and give you the opportunity to say something. But after listening to colleagues' views, they usually base their decisions on their original ideas. Then, you have to implement (the policy) unconditionally." Informants perceived that they had no choice but to follow the university directives. In general, professors were quite pessimistic about their participation. A professor in the Department of Information Technology said that "colleagues perceive you as…a 'meeting the quota' professor, our participation is just to meet the university's quota (for professor participation in committees)."

Ordinary teachers felt that they had no chance to genuinely participate. An associate professor in the Department of Physics shared that

> the university initiates certain policies and then implements them… Their decisions come from a higher authority than teachers' views…teachers…can never participate in the (decision-making) process.

It was very clear that ordinary teachers or professors perceived that their voices were weak in the process of decision making. Although committees were formed to provide greater chances for faculty participation, consultation was often seen by academics as a formality that helped decision making appear more democratic. Informants stressed that this superficial mechanism was worse than a more openly centralized approach. They thought that the so-called new opportunities for participation still constrained academic freedom.

CONCLUSION

In this section, we have four points to make. First, informants perceived that the new opportunities for professor participation were vague. Second, decisions on major issues were made at the university level. At the faculty level, the Dean and the Joint

Committee of the Dean and Party Secretary held authority over most issues. Third, academics felt that their voices were weak in the process of participation. Fourth, concerted efforts should be made to enhance the authentic participation of professors and regular teachers, and the various committees they sit on should have genuine authority to make decisions.

First, new opportunities for professor participation were not constructed formally and did not occur regularly. The membership, decision-making procedures, and overall functions of committees remained vague. Some faculties did not set up a particular committee for professor participation, and many only called on professors to attend committee meetings when certain issues were raised. When the government issued the directive to develop "professor committees," academic leaders at the faculty level, wanting to go along with the government's position, claimed that they had set up professor committees. At the time we conducted our research, however, the term "professor committee" remained a slogan used by leadership, and clearly defined professor committees had yet to be established. The professor committees' roles, procedures and institutional bodies—the main elements of the structural approach to shared governance (Kerr, 1963; Gross & Grambasch, 1974)—remained unclear. Although the Teacher Appraisal Committee at the faculty level allowed professors to have more involvement over certain personnel issues, the committee ultimately only served a consultative role (Tierney & Minor, 2003).

Second, most decision-making authority remained at the university level. Many faculty Deans complained that they had no voice when the university decided certain policies, although the Deans (or the Joint Committee of the Dean and Party Secretary) did make key decisions at the faculty level. The Dean and Party Secretary never discussed the purposes of professor participation in decision making with academics (Tierney, 2005). At the department level, the department head only served to implement directives from the university and faculty. This type of top-down, hierarchical authority within the university was depicted clearly by most of the informants. Professors understood this hierarchical structure and viewed their own participation as mere window dressing.

Third, concerning the communication process (Tierney, 2005), academics perceived that their voices were weak in the process of decision making. Professors did not think that they could affect decisions made at the university level. Regular teachers felt they lacked the chance to participate in the process of decision making. The decisions made at the faculty and university levels were seen as above the will of ordinary teachers. Beside the excessive power of administrative units, informants perceived that top-down hierarchy and control by a few senior academic leaders (*renzhi*) were the major features of governance at our sample university.

Fourth, informants stressed that concerted efforts should be made by the university to increase the participation of ordinary teachers. Authentic participation and a more genuine respect for academics' voices should be enhanced. The ideal of 'governance by professors' should be extended to cover not only academic issues, but all the major decisions within the university. Recent government policies have sought to

de-emphasize the role of senior academic leadership on the professor committees. However, as long as major decision-making authority rests with senior leadership, the ideal of "governance by professors" cannot be realized. Shared governance can only be achieved by enhancing the participation of academics of different rank and by delivering genuine decision-making authority to committees.

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18. THE CONTRIBUTION OF INTERNATIONAL AID TO THE DEVELOPMENT OF BASIC EDUCATION IN WESTERN CHINA

A basic education of nine years (Grades 1–9) was made compulsory in China's Education Law of 1995 (Article 18) and stated that "Citizens shall have equal opportunity of education regardless of their nationality, race, gender, occupation, property or religious belief etc." (Article 9). It also affirmed that "The state shall support the development of educational undertakings in remote border areas and poverty-stricken areas" (Article 10) including minority regions and disabled people. Since then, China's provision and quality of basic education has made huge progress through the efforts of government at different levels. The average years of schooling increased from 6.79 years in 1996 to 8.28 years in 2008, the enrolment rate became close to universal, retention rates and girls' participation improved and repetition rates decreased.

However, implementing the principles stated in the Education Law has proved a challenge, particularly for western and rural areas which have struggled to achieve equality of opportunity, equity in provision and quality of educational experience. Though economic growth enabled the Chinese government to increase the financial investment in education to 3.5% of Gross Domestic Product (GDP) by 2009, this was still a comparatively low level and up to the present time, the ratio of public expenditure on education has not kept pace with the GDP growth rate: "only a modest part of financial revenue is paid to education in China" (Yang, Huang, & Liu, 2014, p. 3). The central government assigned 16.3% of its total budget to education in 2001 but because China's economy grew rapidly, the share of education spending in GDP fell (Tsang, 2002) and inter-provincial disparities in per-student spending also widened (King & Guerra, 2005). In 2001 government expenditure covered only 55% of the total resources for basic education and 45% came from other sources, such as education surcharges *(jiaoyufei fujia)*, student and miscellaneous fees, some income generation by schools, community contributions and external resources. The external resources were largely from foreign sources, mostly from World Bank loans for investing in specific projects (Wang & Bergquist, 2003). As a result of limited government funding and the policy of decentralisation, the costs of basic education fell heavily on poor families leading to their inability to pay fees and other school expenses and thus affecting enrolment and completion rates (Bray, Ding, & Huang, 2002).

J. C.-K. Lee et al. (Eds.), Educational Development in Western China, 325–346.

Although by 2001, 99% of children aged 6–11 years were enrolled in primary education and 88.7% of 11–15 year olds in junior secondary education, these high average rates masked considerable differences in access and participation, particularly between western and coastal eastern provinces, among girls and ethnic minorities, and between rural and urban populations. For example, the gross enrolment rates in 25 counties with minority populations in 2001 were 20% lower than the national average. In one poor county in Gansu province, the primary school completion rate was only 63% compared to a national average of 99% (World Bank, 2010). As well as a shortage of resources overall, a major cause of the disparities between urban and rural provision has been the highly decentralised (some say over-decentralised) system of financing compulsory basic education. Responsibility for financing its provision was delegated to provincial and county local governments. For a short period the responsibility for primary education was given to the lowest level of government, the village, but this proved both impractical and unsustainable and it was moved back to the county level. The wide variation between provinces and counties in their levels of fiscal resources and local conditions was reflected in uneven participation rates in basic education and in quality (the physical condition of rural schools, the availability of learning resources for pupils and teachers alike, the levels of learning attainment and the standards of teachers, teaching and school management). Compulsory schooling in the countryside was characterized in China's Action Plan for Education for All (2010) as "comprehensive in coverage, weak in infrastructure, heavily laden in its tasks, it constitutes both the priority and difficult point in universalising and enhancing the level of compulsory schooling" (section 2.3). The various reforms taking place in the education system and its financing were seen as "increasingly begetting inequalities and inequities" (Wang & Bergquist, 2010, p. 305) and education in western China was falling even further behind the more prosperous eastern and coastal areas.

This was the situation in basic education that international projects sought to improve in the decade beginning 2000, enabled by the Chinese government's policy of "opening up and enlarging the sphere of international cooperation" (Ministry of Education, 2010, section 2.1.1). The decade also saw a policy shift from an emphasis on enrolment to one on educational quality as quantitative targets were being reached in many parts of China. International assistance for basic education had been provided to some extent in the 1990s but from 2000 onwards, there was greater input and a closer focus on achieving basic education of good quality for all children, wherever they might be.

This chapter describes international aid given to the development of basic education in western China. It is not an exhaustive account because of the patchy and inadequate nature of available information sources but it is, nonetheless, able to indicate the kind of assistance given and the main outcomes achieved. The chapter has three aims: (i) to explain the policy context in which international projects operated; (ii) to identify and describe significant projects providing international assistance to western areas; and (iii) to assess the value and limitations of such assistance.

OPENING UP TO INTERNATIONAL ASSISTANCE

A key goal for China's National Action Plan for Education for All (2003) was "Making 9-year compulsory schooling universal in the whole country; basically eliminating gender gaps in enrolment ratios; basically realising equity in education, promoting free compulsory education step by step, especially at the primary level" (PRC Action Plan, 2010, section 4.1). Despite the considerable efforts and financial investment made by the Chinese government in the 1990s to improve rural education, regional disparities in levels of educational development were apparent. By 2000, 450 counties had failed to achieve universal basic education, 391 of them in the poor western regions. Financial constraints (inadequate financial input) were seen as the main deterrent to educational development, and the country's action plan made explicit the need to raise funds through multiple channels and "win more international aids" (PRC Action Plan, 2010, section 1.3.6).

The Chinese government sought international assistance for basic education for a combination of reasons: the difficulties of poor western provinces and rural areas in resourcing their educational development; the pressures exerted by China's Millennium Development Goals (MDG); the renewed policy attention to universal basic compulsory education; and the problems encountered in getting into school the hard to reach children (poor rural children often living in remote areas, girls and children from minority groups) who constituted the last 5–10% of the age group still to participate in universal basic education. At the same time, Chinese basic education was undergoing rapid major changes in terms of the introduction of new teacher qualifications and standards, a new national curriculum and the use of information and communication technologies (ICT) in schools. The pace of change and innovation could only mean that education in poor western and rural areas would fall even further behind without renewed efforts and more resources. Another spur to action was the promotion at the 16th National Congress of the Communist Party of China (CPC) in November 2002 of President Jiang Zemin's vision of a *xiaokang* society ("small well-being overall", a moderately prosperous society for all) in the face of widening socio-economic gaps.

The Chinese government's strategy in using foreign loans and funds was expressed as follows:

> To enhance the effectiveness of donors' funds, the current practice in China is to direct international aids to serve the needs of China's strategies and plans of educational development, and to integrate international aids with domestic resources contributed by the governments and donors, with most projects biased to poor areas in the western region. (PRC, 2003, section 1.2.5)

This strategy matched the policies and priorities of the World Bank and donors whose focus worldwide was on poverty alleviation and the reduction of disadvantage through education (UNESCO, 2010). In general, several factors seem to influence donor decisions to finance basic education: donor priorities and leadership (the two

strongest influences), evidence, advocacy, aid architecture, and to a lesser extent, the absorptive capacity of partners, partner demand and donor capacity (Steer & Baudienville, 2010). A further factor was the influence of international agreements (such as acceptance of MDG and the policy of Education for All) which promoted collaborative efforts. With reference to China, donor priorities, leaders' advocacy within the donor agencies and international agreements were strong influences in directing aid towards poverty alleviation and basic education.

Further encouragement to the international donor community came in 2000 when China's policies for western development were strengthened. In 2000 the State Council set up a Leading Group for Western China Development and the policy of "Open up the West" began implementation. The policy covered six provinces (Gansu, Guizhou, Qinghai, Shaanxi, Sichuan and Yunnan), five autonomous regions (Guangxi, Inner Mongolia, Ningxia, Tibet and Xinjiang) and the municipality of Chongqing, together accounting for 28.4% of China's population. The concept of "western areas" was more than geographical and referred to China's rural, remote, less developed and less prosperous areas. The policy aimed to develop infrastructure (a key goal), protect the environment, encourage foreign investment, increase the use of science and technology and improve education and the retention of educated and skilled human resources in western areas. Many of these aims were incorporated into the 10th Five Year Plan (2002–2005). It was in this context of policy and influences that a number of internationally funded projects for basic education were planned and implemented in the decade beginning 2000.

In the following descriptions, more attention is given to the largest and most significant projects though all the projects can be said to have made some contribution, to varying degrees, to the improvement of basic education in western China.

World Bank Loan Assistance

China became a member of the World Bank in 1981 and up to 2000 was the largest borrower though the total amounted to only US$ 2.5 per head of population, the lowest proportion of loan *per capita* in East Asia (Wang & Bergquist, 2003). The World Bank-IBRD (International Bank for Reconstruction and Development) made interest-free loans to China funding many education projects throughout the 1980s. However it was not until the 1990s that the World Bank shifted its attention from higher to basic education, supporting a series of substantial projects (1992–1998; 1995–2000; 1996–2001; 1997–2002), with the goals of poverty reduction and institutional strengthening of the education system. These projects aimed to assist the attainment of universal primary education, to expand junior secondary education in poor minority areas and to strengthen the institutions delivering educational services. Between 1992 and 2009, World Bank credit and counterpart funds amounting to US$ 1.065 billion were allocated to projects in the poorer parts of China (World Bank, 2010). In total, project participants came from 466 poor counties

in 21 provinces or autonomous regions and of these, 11 provinces and 255 counties were in western areas. These projects all pushed forward the universalization of nine-year compulsory basic education, the physical improvement of schools and the development of the human resources serving the education system.

The first major project supporting basic education began in Gansu in 1986 with a World Bank appraisal mission (World Bank, 1987). Up to this point, almost all World Bank finance for Chinese education had been directed towards higher education on the grounds that this was essential to meet the urgent need for high level human resources. The shift to basic education recognised the importance of more balanced and equitable development in supporting China's education system. The project in Gansu was also the first World Bank project in China to engage directly with a provincial bureau of education rather than the central Ministry of Education. It was part of a larger development programme which included agriculture and industry and was funded by a World Bank loan of USD 20 million on IDA terms (that is, an interest-free loan).

Why choose Gansu? Gansu was (and is) one of the poorest western provinces. In 2000, 41 of Gansu's 76 counties were designated "poor" by national standards and many counties had not yet achieved universal primary education (Grades 1–6), much less that of junior secondary education (Grades 7–9). The aim of the project was to assist Gansu provincial government to achieve universal basic education and quality improvement more quickly, thus narrowing the gap between Gansu and other more developed parts of China. Specifically, it aimed to increase access to schools, decrease disparities between rural and urban schools, improve management and planning and demonstrate effective models for other provinces. It financed civil works, equipment and technical assistance. At that time, in the mid-1980s, primary education in Gansu was characterized by high enrolment rates because of over-age children in school, high repetition rates (about 20% of children in Gansu repeated first grade) and a high dropout rate with only 34% completing primary school compared to the national average of 65% (World Bank, 1987).

This first education project increased the number of qualified primary and junior-secondary school teachers, improved the quality of science teachers and teaching in poor counties, and upgraded the capabilities of education administrators in the design and implementation of educational programs (World Bank, 2010). Subsequent projects covered six more provinces and Zhang, Zhao, Zhao, Zhang and Wang (2004) concluded that the World Bank projects in poor rural counties had "proved effective for improving the status of education provision and, at the same time, demonstrated its resourcefulness for other projects" (p. 15). However, the ongoing slower economic development of western areas and inadequate funding for rural education continued to threaten the goal of universal nine-year basic education and this led to a further substantial initiative, the Basic Education for Western Areas Project (BEWAP).

Basic education for western areas project (BEWAP). From 2004 to 2009, the World Bank and the U.K.'s Department for International Development (DFID) collaborated to support the Chinese Government's efforts to improve education for the hard-to-reach and most disadvantaged children in order to attain the policy goals of universal completion of nine years of basic education by 2010, according to the Tenth Five Year Plan. This project was seen not as a simple duplicate of previous projects but as "an innovation or breakthrough in project financing and implementation content" (World Bank, 2010, p. 39). It sought to improve the primary and junior secondary enrolment of girls, poor children and ethnic minorities in five of the poorest provinces of western China (Gansu, Guangxi, Ningxia, Sichuan, and Yunnan) where there were 22 ethnic minorities in 98 of the 112 project counties. The experience of the earlier UK-China GBEP (described in the next section of this chapter) helped to shape project design, emphasising a strong participatory process in community and school, child-centered education and school-based management and development planning.

The project's financial model was innovative in that it combined grant funds from UK's DFID with a loan from the World Bank/International Bank for Reconstruction and Development (IBRD). DFID provided a grant of US $34.5 million which significantly reduced the interest rate on the IBRD loan to China (because China had achieved the status of middle-income country, it no longer qualified for interest-free loans). Without the UK grant, the loan to China from the World Bank would not have been made and the project could not have taken place. The total project cost was US$ 143.30 million (RMB 1.2 billion equivalent) financed by an IBRD loan of US$ 100 million to the government of China plus the UK grant. The remaining funds (US$ 8.8 million) came from Chinese sources. Another innovation was that each province took charge of its own procurement and implementation, dealing directly with the World Bank office in Beijing and having its own account, building local capacity in the process. Project funding was used to improve school facilities (84% of project costs went on school construction and upgrading, furniture, teaching equipment and library books), to strengthen school management and administration (5% of project costs) and to improve the quality in teaching and learning (11%) (World Bank, 2010). DFID also provided a parallel grant of £1.75 million to fund an impact evaluation, two national-level studies and a number of provincial-level studies, as well as technical assistance during implementation.

By 2009, the project had constructed or upgraded 1,525 schools, supplied nearly seven million textbooks, and provided training for almost 11,000 head teachers and more than 154,000 teachers. Universal enrolment was achieved in the primary and junior secondary schools included in the project. The greatest gains were in Sichuan, which had started from the lowest base among the five provinces (particularly in the enrolment rates of ethnic minorities). Yunnan, Guangxi and Ningxia achieved parity in primary education enrolment among boys, girls and ethnic minorities, while Sichuan and Gansu became close to parity. The enrolment gaps between boys, girls and ethnic minorities in junior secondary education were reduced or closed

(reaching at least 95% enrolment). Completion and pass rates in Chinese Language and Mathematics among these groups improved and pupils were supported by a larger proportion of qualified teachers (World Bank, 2010). The main beneficiaries were 2.4 million students, 19% of them from ethnic minorities who lived in mountainous, difficult or remote areas and were hard to reach with educational services. Girls and children from ethnic minorities who were particularly disadvantaged were the main beneficiaries of the project which included boarding school subsidies for girls.

An important achievement of the project was its positive influence on ethnic minority education. Nine-year compulsory education was universalized in minority areas in project counties where schooling conditions and infrastructure were transformed. Boarding facilities were expanded and improved as was the supply of school places. Head teachers and teachers participated in training and although ethnic minority personnel accounted for only a small share of the teaching force, minority teachers accounted for 40% of all those trained.

The project achieved its goals despite the setbacks in 2008 of the Wenchuan earthquake in Sichuan and the global economic crisis which affected currency exchange rates and costs. The Chinese partners wrote in the final report that "The implementation of the project has greatly improved the school conditions and teaching quality as well as the innovation in poor and minority areas, and has brought a significant change in a high-quality popularisation of nine-year compulsory education in project areas" (World Bank, 2010, p. 41). The project was judged successful by all three partners as was the collaboration between DFID and the World Bank in managing and monitoring the project, taking a "genuinely joint approach" and making "full use of the comparative advantages of both organizations.…it is a model worth studying and emulating elsewhere" (World Bank, 2010, p. 25). An external evaluation of DFID's projects in China concluded that "The joint DFID-World Bank project shows how effective DFID has been in maximising its small budget by partnering with larger donors…greatly improving the effectiveness of much larger amounts of loan financing" (DFID, 2010, section 26).

UK Assistance for Basic Education in Western China

The UK partnership with the World Bank for BEWAP arose out of the UK's earlier involvement with basic education in western China. International aid from the UK government is provided through its Department for International Development (DFID) which has the aim of promoting sustainable development and eliminating world poverty through bilateral and multi-lateral financial aid. In China, a primary focus of DFID's bilateral aid (that is, aid given by the UK government directly to the government of China) has been the Millennium Development Goals (MDGs) in five sectors: poverty reduction, education, health, sanitation and sustainable development. From 1997 onwards, DFID adopted a more poverty-focused policy in providing financial aid to Chinese education. DFID's Country Strategy Paper (2002–2005) and Country Assistance Plan (2006–2011) for China, with a strong focus on health

and education, were relevant to the aims of China's 10th and 11th Chinese Five-Year Plans. DFID saw the support as plugging gaps in China's 10th Five Year Plan, which was more growth than poverty oriented. By contrast, China's 11th Five Year Plan was more poverty-oriented than the 10th, and UK support was then able to align itself more closely with national programmes in order to assist China in reaching its MDG goals, particularly the hard to reach targets (DFID, 2010). The support for education took the form of the projects described in the next section. Aside from these, financial support was also given by DFID to educational development in Tibet through the non-governmental organization Save the Children and to UNDP (United Nations Development Programme) for Project 403: Using distance education and ICT to improve teacher quality in poor areas of Western China, 2002–2007.

The UK-China Gansu basic education project (GBEP, 1999–2006). This first UK project was significant in its achievements and strongly influenced the other UK-supported projects which followed. The project was viewed as a pilot aimed at reforming educational services in poor and minority areas and reducing the widening gap in educational quality. At that time, the condition of rural schools was very poor: dilapidated buildings (often unsafe), crowded classrooms, cold in winter, with few teaching resources beyond the prescribed textbooks, under-qualified teachers and poor quality teaching. Project planning began in 1999 and four of the poorest of Gansu's 86 counties were selected to participate: Dongxian, Jishishan, Hezheng and Kangle, all in the same prefecture (Linxia Huizu).

UK's DFID provided a grant of £14.1 million and cooperated directly with Gansu Provincial Education Department. A project management office was set up in the Provincial Education Department in Lanzhou (the provincial capital) with 6–7 part-time staff working with a team of about 20 short-term consultants (international and Chinese). Similar smaller project offices were set up at prefecture and county level (all four selected counties were in the same prefecture). The project thus concentrated on a small area and brought in substantial new funding to these disadvantaged counties together with new ideas and practices.

The outcomes from the project were very positive. The average net enrolment rate in basic education within the four counties increased from 79% in 1999 to 92% in 2005. For girls, the net enrolment rate increased by 17%–26%. Drop-out rates reduced to less than 2% in Grade 1 in 2005 compared to 15% in 1999. To improve physical conditions, 170 out of 700 schools were renovated, including many remote schools. Over 6,000 teachers and 700 head teachers (671 primary and 47 junior secondary) participated in training. Special support was provided for female potential head teachers as a means of redressing the gender imbalance of a predominantly male head teacher workforce. Other achievements were visible but more difficult to measure, such as improvements in teaching methods, learning outcomes, school management and school inspection (Brock, 2009). Two important innovations were the introduction of school development planning and child-centered teaching. In school development planning, the school and community combined to create a

unified approach to school development, improving operational planning and increasing ownership of local education issues and provision. In developing child-centered teaching, teachers learned to use new participatory methods which were also used in the in-service training provided for them. Child-friendly classrooms were set up and children with special educational needs were included together with training for teachers. Other initiatives included the creation of locally developed learning materials and scholarships, particularly for girls and minority children to help them complete a full cycle of primary education. Scholarships were provided for over 11,000 primary and 3,000 junior secondary school pupils (70% went to girls and minority children according to transparent selection criteria and, as a result, the enrolment rate of girls from minority communities increased the most). Because the project was judged successful by all parties, a further grant was given by DFID to extend it to more counties in Gansu.

Project to support universal basic education in Gansu (2006–2010). This second Gansu project aimed to extend the experience and benefits of the UK-China GBEP beyond the four counties of the previous pilot project. DFID provided £6.25 million and Gansu Provincial Education Department implemented the project. It followed a similar model, but with only a very small amount of international consultancy input. It applied the lessons and good practice learned from the first project, making use of training materials developed then and adding to them. About 40% of the budget was spent on teacher training, 20% on primary education, 20% on education policy and administrative management and 20% on democratic participation and civil society.

The UK-China Southwest basic education project (2006–2011). At the same time as the Gansu extension project, a broader geographical coverage was provided through the UK-China Southwest Basic Education Project in partnership with the Ministry of Education in Beijing. DFID provided £23.6 million to support the achievement of nine-year compulsory basic education in 27 of the poorest and most remote counties in Yunnan, Sichuan, Guizhou and Guangxi. Each province provided 10% of this amount as counterpart funding to be used for student assistance. The project's goals were "Increased and equitable access to high quality basic education in all counties targeted in the Government of China's Nine Year Compulsory Education Program in the Western Region" and "To support the Government of China to achieve its goals in basic education, by increasing Government capacity to improve effective programmes that increase equitable access, completion and achievement for the most excluded boys and girls" (Yang, Ding, & Hu, 2012, p. i).

Again, the project built on the tried and tested model and activities of the UK-China Gansu Basic Education Project, implementing it in a variety of contexts and in ways appropriate for local cultures and conditions. About 36% of project funds were spent on teacher training, 34% on primary education, 20% on policy and administration and 10% on research. Participating in the project were 77,000

teachers, 1.67 million disadvantaged children (mainly girls) and head teachers from 1,400 poor township schools which also carried out school improvement planning. A quantitative impact study measuring student achievement in project and non-project counties found that despite having lower average ability scores in the baseline tests, students in all grades in the project counties made significantly more progress than those in the non-project counties, for Chinese and Mathematics and with similar results for boys and girls (Yang et al., 2012).

Taken together, these three UK-supported projects covered a fairly substantial proportion of schools, teachers and administrators in the poorest and most disadvantaged areas but their contribution goes beyond numbers and should also be judged in terms of innovation and influence on equity and quality. DFID helped the Chinese government to achieve hard to reach MDGs in western China, particularly through targeting disadvantaged groups: "Projects have piloted innovative approaches on the ground which, with strong government ownership, have been adopted and scaled up by provincial and national governments" (DFID, 2010, p. xvi). At the same time, "the MDG programme also helped DFID to understand development in China, build relationships and a reputation with provincial and Beijing government stakeholders, demonstrate DFID's commitment to poverty reduction in China" (DFID, 2010, p. xvi).

European Union Support for Basic Education in Western Areas

Though most of the earlier European Union (EU) education projects in China had concentrated on higher and vocational education, assistance to basic education was prompted by China's policy goal of developing poor western areas alongside the EU's own objectives of poverty alleviation and improving equity in access to education (EC, 1998). The EU drew up its first China policy paper in 1995 (EC, 1995) and thereafter built its relationship with China through many cooperative projects over a wide range of fields (Barysch, Grant, & Leonard, 2005). During the period 2002–2006 the EU committed around €250 million to development projects with China, shifting its focus to align more with the 11th Five Year Plan which emphasised the need to address the social consequences of rapid economic growth.

On the Chinese side, the EU was the focus of China's first-ever policy paper on a foreign partner (Ministry of Foreign Affairs, PRC, 2003). This set out China's vision for a broader relationship with the EU, stating that China welcomed more EU development aid, especially in such fields as environmental protection, poverty alleviation, public health and hygiene and education. China invited the EU to play a stronger and more active role in developing human resources and the use of information and communications technology (ICT) in China's central and western regions. A request from Chinese government to the EU for assistance in improving basic education and developing the use of ICT in education in poor western areas led to the EU-China Gansu Basic Education Project (EU-China GBEP).

The EU-China Gansu basic education project (EU-China GBEP, 2002–2005). The overall purpose of the EU-China GBEP, as defined in the project's logframe, was "to assist the Gansu Provincial Government in the implementation of educational reform and to support incremental implementation of nine-year basic compulsory education in poverty-designated areas." The latter were the 41 government-designated "poor" counties in Gansu (the remaining 45 were relatively more prosperous). A grant of €15 million was allocated to the project by the EU and €2 million by the Chinese government. The project ran from September 2001 until December 2005 with EU input, and was then extended until March 2007 by Gansu Provincial Government, the implementing partner.

In September 2001, a project management office (PMO) was set up in Lanzhou and one Chinese and one (resident) European co-director were appointed together with several other staff seconded from local government departments and universities. The Chinese co-director was also head of the teachers' division in the provincial government's Department of Education, a position which proved valuable for project implementation. In addition, the PMO had access to a wide network of local institutions and partners with whom it had a range of contractual and non-contractual relationships for assistance in project activities. Short-term consultants came from other parts of China (Beijing, Guangdong and Shanghai, from Gansu (universities, teachers' colleges and schools) and from Europe (Belgium, Germany, the Netherlands and UK). County-level PMOs were set up in the 41 project counties.

The scale of project activities was large and involved staff at all levels of the education system (province, prefecture, county, township and village) and partnerships with teachers' colleges, schools, Gansu Radio and Television University, Northwest Normal University and the Provincial Center for Educational Technology. Though no school renovation was carried out by the project, the learning environment in poorer schools was improved through the provision of newly-designed furniture and new conceptions of what a child-friendly classroom could be like. Increased access to school was made possible for poor rural children through scholarships, awarded on the basis of a transparent selection process (103,550 scholarships altogether were provided, 59% for girls and 29% for ethnic minority students).

The main thrust of the project was to improve the knowledge, skills and understanding of rural teachers so that the quality of teaching and learning would improve. Research worldwide has shown teacher quality to be the most important element in improving school quality and, as Wang and Li (2009) found, the main reason for the quality gap in rural schools in western China, compared to those in urban areas was differences in the teaching force. The project addressed the issue of teacher quality in several ways. One was to help rural teachers upgrade their qualifications. A blended learning programme was created (distance learning plus residential courses in school vacations), providing places for 1,128 under-qualified junior secondary (junior middle school) teachers to enable them to upgrade their qualifications to the required new standard of diploma *(zhuānkē xúelì)* while continuing to teach. The

number of qualified junior secondary teachers in the province increased by 10% as a result and at a quarter of the costs of a traditional college course. Also, 438 unqualified primary teachers were given subsidies to obtain a teaching qualification through full-time study at local colleges with an updated curriculum.

The largest part of the project focused on the in-service professional development of rural teachers, head teachers and administrators, many of whom habitually received little or no in-service training. The project's approach to training combined three modes: residential (the traditional way), mobile training teams and school-based. Mobile and school-based training proved to be powerful and cost-effective strategies for supporting rural teachers, helping them to apply and extend what they had learned on the residential courses. School-based training in particular enabled a shift from the usual supply-driven provision of in-service training to on-demand participation, putting teachers more in control of what and how they learnt.

School-based professional development was provided through local Teacher Learning Resource Centers (TLRCs), an important innovation which later spread to non-project counties and was adopted by some other provinces too. Though ICT was a key element of the project, teacher development was the main focus. The choice of technology began with an analysis of teachers' professional development needs and the services required. Each TLRC was provided with a set of equipment to receive Internet and satellite IP broadcasting (a means of multimedia data transfer by satellite using computers connected to the satellite receiver to download data), a television, two computers, laser printer, portable hard disk, VCD-player, CD-rewriter, modem, digital camera) and 232 items of learning resources (print, CD-ROM and VCD). The equipment enabled teachers to access, download, store and share information, view and record television and video programs, and use computers and the digital camera to create teaching materials and individual teacher professional development portfolios. Online activities included blogs, chat rooms, teachers' reflection papers, sharing of experience, reports of best practice and inter-school communication. Following an evaluated pilot pf 68 TLRCs, a total of 686 was set up at rural primary and junior-secondary schools. In each a team of 3–4 teachers, trained for their roles, managed it and provided support to users as well as organizing meetings and leading workshops for fellow teachers.

A TLRC was not simply an equipment center. It was a multi-purpose facility in a room of sufficient size where teachers could gather, drop in and take part in workshops as well as using the equipment and occasionally teaching classes there. TLRCs were supported by county-level trainers and teams of mobile trainers. Teachers' participation in TLRC activities was officially recognised as part of their fulfilment of continuing education requirements each year and, in some counties, was a condition of promotion. This helped to ensure that the TLRCs were active with good rates of participation though many teachers needed no encouragement to use them since they provided, in their words, "a window on the world" (Robinson, 2008; Robinson & Yi, 2009). Many teacher-generated learning resources appeared in the centers as the project progressed.

The project spent 24% of its funds on ICT equipment, 6% on learning materials, 4% on scholarships and 66% on training (Robinson, 2006). Though the project provided 9% of all school satellite-receiving equipment in Gansu in 2005, innovation lay not in the provision of technology but in how human resources and existing systems were mobilized and adapted to support its use. The TLRCs and use of ICT enabled an inclusive form of professional development, since no teachers were excluded. For example, it was usually the case that *daike* teachers (rural teachers not on the government payroll but paid locally) were excluded from official in-service activities (Robinson & Yi, 2007). Teachers in remote locations often lacked opportunity too. Through the TLRCs more rural teachers had more access to good quality learning resources and the teaching community more often than before, wherever they lived, whether *daike* teachers or not. Access to training opportunities and learning resources was seen by rural teachers as vital in narrowing the resource gap between rural and urban teachers. The experience of using TLRCs as a platform for rural teacher development led to the strategy being adopted as policy by the Gansu Provincial Government and schools were directed to allocate a small percentage (7.4%) of their budgets to support TLRC activities. The TLRC model was also adopted in other provinces, encouraged by the Ministry of Education.

The scale of the project was challenging but it also offered the opportunity to achieve a critical mass for changes in practice and mind-set, especially since it engaged with all levels of the education system. By 2005, about 80% of teachers in basic education in the 41 project counties had participated in training activities on the new curriculum, new teaching methods, the use of ICT and its integration into classroom teaching. Training methods themselves were greatly changed, showing more learner-centered participatory approaches, active learning and the use of multi-media. A core training resource of 8 print and related video modules were developed locally, more relevant to the needs of rural teachers and head teachers than the centrally-produced materials from Beijing. These used active learning approaches in their design and were developed through a new team approach, involving teachers, trainers, subject specialists and graphic designers and media specialists, all trained by international and national consultants working in partnership. The project's partners at Northwest Normal University in Lanzhou carried out large-scale intensive training of rural teachers in ICT skills through residential courses and mobile training teams and also further developed their own expertise in training and research.

By the end of 2006, 105,000 teachers and head teachers responsible for 2.6 million primary and junior middle school students in the 41 counties had participated directly in the project. A further 27,000 teachers in all 45 non-project counties had made use of project materials, especially the training modules which were distributed throughout the whole of Gansu province by the provincial education department. Over 1,000 teachers from non-project counties had participated in additional trainers' workshops. Other provinces requested and used the materials and some projects emulated the interactive approach to designing text and video when producing their own materials. Action research projects on the new curriculum and the use of ICT

were carried out by teachers in their village and township schools and an action research center was set up in collaboration with Northwest Normal University as teachers began to evaluate their own practice.

The project was judged successful by all partners through internal and external evaluations, including a post-project impact evaluation. Not only did it have wide coverage of the poorest counties of Gansu, it also brought new ideas and practices. Its innovations (the TLRC model for school-based training, mobile training teams, the design and development of learning and training materials) spread more widely within Gansu and to other provinces. Though no systematic research was done on gains in student learning, changes in teachers' relationships with students, teaching methods and students' positive responses to the new approaches were widely reported and observed. Like all donor-funded projects, it had a defined life-span through this was extended by Gansu Provincial Government for two years beyond its EU ending, because of its demonstrated value and the continuing need for it. In the years following the end of the project, the TLRC model has survived to varying degrees across the counties, depending on the availability of local finance, local leadership and changing provincial-level priorities and personnel. In some schools the TLRCs continue to flourish and evolve, in others the facility is under-used because of lack of finance and support and teachers need further needs-based professional development.

A Variety of Donor Support

In addition to these major projects there have been a large number of donor-supported initiatives of smaller and varying scale to support basic education. Funding and support of different kinds has come from many individual countries and international organizations:

> While the public authority of China takes major responsibility for policy-making, overall planning, resources mobilisation and monitoring of EFA in the country, the international community has been a driving force and an important source of strong financial and technical assistance to the national efforts in promoting EFA. The World Bank, UNICEF, UNCESO, UNDP and Asia Development Bank, European Union, UK Department for International Development, and many other donors, have contributed in most meaningful ways to the effective implementation of basic universalization of nine-year compulsory education and basic elimination of illiteracy among young and middle-aged adults through varied development assistance projects. (Zhou, 2006, p. 5)

Efforts by donors grew from the mid-1990s onwards with an increasing focus on reaching the disadvantaged and providing education of good quality. For example, the UNICEF-China project on promoting primary education in poor counties (1996–2000) contributed US$ 21 million with matching resources coming from the Chinese

government and involved 2,318 schools in 102 government-designated poor rural counties in western China. Though often working with limited funds, UNICEF has contributed strongly to policy making and innovative ideas: advocacy and project implementation of free text books for poor rural children, the development of county-level indicators for monitoring universal primary education at local level, education for the children of rural migrant workers, child-friendly schools and the development of a competency-based school curriculum. UNICEF's Education and Child Development Programme (2006–2010) in cooperation with the Ministry of Education, was aligned closely with China's national priorities in educational development, particularly in relation to disadvantaged children. It allocated US$ 11.2 million to the programme and raised additional funds from other sources.

Because of the Chinese government's policy to use "modern distance education" ("informatization") to help develop education in western China, donors from several countries and international organizations have supported ICT projects. For example, the Canadian International Development Agency (CIDA) provided (Canadian) $20.5 million for a project 'Strengthening Capacity in Basic Education in Western China' (2002–2007). The aim was to improve basic education through the development of teacher training systems and student-centered teaching. It set up learning support centers using ICT in 360 schools. In an ambitious design, the project operated in three ethnically, linguistic and geographically diverse areas, in two counties in each of three provinces, Ningxia, Xinjiang and Sichuan, coordinated from a project office in Beijing. A Canadian team partnered staff from the National Center for Educational Technology in Beijing to design instructional materials for teachers and the project was implemented through Provincial Centers for Educational Technology (PCET). More than 10,000 teachers and administrators in the six project counties used the distance teaching materials and the online platform created. Online activities involved blogs, forums, chat rooms, reports of best practice and record keeping.

Several other ICT projects were also carried out over the same period. One was implemented by UNESCO (Bangkok) with funding from Japan and the Chinese government in 2003–2006. This aimed to "bridge the digital divide" in Gansu, Qinghai, Ningxia and Guizhou and improve the quality of learning by training 2,000 teachers to use ICT and to integrate it into the curriculum. Another was carried out by UNDP (United Nations Development Programme) in partnership with the Chinese government and co-funded by UK DFID (Project 403: "Using distance education and ICT to improve teacher quality in poor areas of Western China" 2002–2007). This was implemented in Sichuan, Yunnan and Gansu, setting up ICT centers, developing learning materials and providing training. Other organizations operating across China also carried out programs in the western provinces, providing training in ICT and its integration into teaching, for example, Intel's Teach for the Future project in China included a Rural Female Teachers Training Programme using over 500 Intel volunteers to provide training.

These and many other smaller projects were undertaken by different donors from 2000 onwards. They can illustrate Zhou's (2007) conclusion about the value of

international assistance for basic education but unfortunately, the documentation of many of these projects is minimal or lacking altogether, vanishing from the public domain (and in some cases from the donor's internal records as well). Sometimes reference to them can be found in archives only as brief press releases. Project evaluations were not always carried out, or lacked sufficient professional rigour, or remained in the "grey" literature without circulation in the public or academic domain or were kept confidential. This is a persistent but sad characteristic of projects in general, though of course there are exceptions (higher levels of explicit accountability and resources for evaluations tend to be more common in the larger organizations). In the case of the DFID, World Bank and EU projects, internal and external evaluations, including impact evaluations, were generally carried out and were based on the OECD-DAC indicator framework of relevance, efficiency, effectiveness, impact and sustainability.

In a minority of cases, research and evaluation funds were included in project plans and budget lines but even then, these were sometimes cut as other project priorities took precedence. This limits knowledge-building about project achievements and failures, evidence-based lessons to be learnt and inter-cultural management of the change process. In particular, knowledge about the impact of training is often weak, an important deficiency since training occupies a large proportion of costs in most projects. In asking the question "Does training work?" Nelson (2006) highlights weak practice in aid projects in assessing the cost-effectiveness of training programmes, pointing to "the lack of data on how much donors and countries spend on training and what instruments are used… Lacking such data means that the programs are poorly monitored by the organizations that pay for them" (p. 6). Though there are technical difficulties in measuring impact, it is still disappointing that this known problem persists to such an extent.

CONCLUSIONS

Foreign aid to China has represented only a very small proportion of China's Gross Domestic Product (GDP) and has decreased as China has become richer, with most major donors ceasing to provide aid for basic education. The total Official Development Aid (ODA) to China in 2006 from all donors (15 bilateral and four multilateral) was US$ 2.76 billion, less than 0.1 % of China's GDP. Nonetheless, there is wide consensus among stakeholders, Chinese and international, that international assistance, though relatively small in amount, has been beneficial in contributing to the development of basic education in western and poor rural areas in China. In reviewing the various initiatives which led to the universalization of basic education in China, Zhang et al. (2004) concluded that

> Progress of Chinese compulsory education in rural areas should also be partly attributed to international community's constructive support. Many international organizations have been productively engaged in the cooperation

> with China in the aspects of school facilities improvement, teacher training, curriculum development, education quality, school capacity building and improvement of management system. International agencies and external assistance, such as the World Bank, UNICEF, UNDP, UNESCO, ADB, DFID as well as many other cross-national players have served as a catalyst resource to demonstrate alternative and innovative approaches for UBE [Universal Basic Education] in rural areas. (p. 38)

Without international aid, it would have taken much longer to reach the last 5–10% of disadvantaged children and the quality of their education would not have improved as quickly as it did. The notion of equity, high on the agenda of international donors, might have received less attention too. The most effective projects were able to innovate in difficult environments and give practical demonstration of aspirations expressed in government policy. Interaction with the international community also meant that "China benefited enormously from the concept of education for all, the basic principle of meeting basic learning needs, the policies and practices outlined in Education for All Program, and the experience exchange among all members" (Zhang et al., 2004, p. 36). Sometimes international projects were able to pilot and test new approaches and models that the government could then roll out on a larger scale.

Some donor-funded projects were able to reinforce and consolidate Chinese initiatives. For example, the decade beginning 2000 saw the introduction of ICT to rural education as a means of improving teachers' quality and professional development, especially in western China. Between 2002 and 2007, the Chinese government (central and local) invested about 11.1 billion RMB Yuan in the Modern Distance Education Project for Rural Schools, MDEPRS, (Wang & Xin, 2010; Han & Wang, 2010). This provided three models of equipment, for village schools, township primary schools and junior secondary schools in order to open up access to more good quality teaching and learning resources and to establish the use of modern information and communication technologies in schools. The project mostly focused on investment in equipment and infrastructure, relying on the expectation that if the equipment were provided, it would be used but there was too little provision for training and education resources. As Yu and Wang have observed (2006), "Being technology oriented in an education innovation has in fact been a typical behaviour of the Chinese government" (p. 273). This has often been the case in some other countries too when introducing new technology, though perhaps especially so in China. In some western areas of China, international projects such as the EU-China GBEP, the Canadian CIDA project and UNDP's 403 project, compensated for the lack of training in the use and application of ICT, focusing in their projects on training and human resource development as a priority. For example, comparison of findings from two surveys of 13 provinces, including the western provinces of Ningxia, Qinghai, Gansu, Shaanxi, Sichuan, Chongqing City) showed that the beneficial impact of MDEPRS was highest by far in Gansu, one of the poorest provinces

(Yang & Han, 2007; Yang, Huang, & Liu, 2007). This finding has been attributed in part to the existence of several other projects being implemented in Gansu around the same time to help improve rural education: "when MDEPRS has been used in conjunction with other programs it has been more effective in less prosperous regions, such as Gansu" (McQuaide, 2009, p. 14).

In planning and implementing projects, the relationship between a donor organization and a recipient country is not always a comfortable one. A survey by OECD (2003) of countries receiving donor aid revealed several problems: domination of donor driven priorities and systems, difficulties with donor procedures, uncoordinated donor practices, excessive demands on time, delays in disbursements, lack of information and demands beyond national capacity. These difficulties were acknowledged in the Rome Declaration on Harmonisation of Donor Practices for Effective Aid Delivery (OECD, 2003): "We are also aware of partner country concerns that donors' practices do not always fit well with national development priorities and systems, including their budget, programme, and project planning cycles and public expenditure and financial management systems" (p. 10). The guidelines for good practice in the Rome Declaration (for example, "Ensuring that development assistance is delivered in accordance with partner country priorities") were endorsed by representatives from 28 recipient countries and 40 organizations providing aid. Recipient countries themselves were also urged to make plans to harmonise the receipt of donor aid, to coordinate the inputs rather than fragment and separate projects.

All of these difficulties will have surfaced to varying degrees at some point in the educational development projects in China as elsewhere, even the most successful. Also, while many of the projects were closely aligned to the government's policies and priorities, the harmonisation of aid projects was not always well achieved and both donors and partners did not coordinate inputs as much as they might have done. As one OECD (2003) report concludes,

> Donor funding structures can perpetuate institutional fragmentation. This is likely to impede the possibilities for integrated, coherent and holistic education sector development and planning. Similarly, foreign actors and donors can undermine the role of national/designated authorities in both education management and resource mobilization. (p. 10)

While this has been less the case in China than in some poorer less-developed countries, it was still observable in some ways. For example, in provinces where several projects operated, parallel projects tended to compete rather than cooperate as did the department leaders responsible for them. Cooperation and communication between project teams, even when projects had similar goals and approaches, was often minimal or absent and could result in unnecessary duplication of effort. This was particularly evident in ICT training for teachers, provided by different agencies including government agencies, where lack of coordination between projects led to repeated training in the same basic skills while teachers' needs were for assistance

with integrating ICT into their teaching. Integration between projects most often took place at the local and school level and through teachers.

As a development partner the Chinese government demonstrated a high level of commitment to reaching the universal basic education goals through a series of policies, allocation of funds and initiatives. For example, the 11th Five Year Plan (2006–2010) allocated over the equivalent of US $35 billion to support the policy of "Two Exemptions and One Subsidy" in western and central regions, abolishing miscellaneous and textbook fees, and providing living subsidies to boarding students on a needs-basis. The Government made compulsory education free nationwide in 2008 as well as introducing many other measures to support rural and poor areas in western China. As a consequence "the reduction of the private cost of education resulted in increasing enrollment, reducing dropout, and improving school completion rates, particularly among girls, minorities, and children in poverty" (World Bank, 2010, p. 20). This high level of commitment encouraged foreign organizations to contribute funds and make efforts to assist China. UK's DFID reported to the UK Parliament's House of Commons that "China is unique amongst developing countries in its ability to draw on ideas and innovation from others and creatively build on them and roll them out across its vast country, pulling millions of people out of poverty in the process" (House of Commons International Development Committee, 2009, p. 17).

However, in the period 2002–2005 China's GDP rose faster than aid flows could. China's GDP increased by about 57% (an average of 9.3% per annum) and government revenues increased by 136%. By 2008, China had the third highest GDP worldwide. Donors were generally unable to continue providing financial aid for basic education since so many of China's targets had been reached and the Chinese government was well able to provide its own financial assistance if it chose. In 2011, the UK government ceased providing financial aid to China for basic education because it was difficult for DFID to justify to the UK government and taxpayers the continuance of bilateral aid to China when there were other poorer countries in need of DFID support and China itself was increasingly becoming a donor to other developing countries. The relationship between donors and China was to move from a donor-recipient relationship to one based on cooperation and dialogue, for example, EU policy evolved from one of development assistance to strategic partnership on a wide range of policy issues and with a broadening scope of activity (Casarini, 2006; EC, 2007).

Some donor-funded projects around the world have left their mark and helped to improve equality of opportunity and quality in the poorest, most disadvantaged regions. Other projects have vanished almost without trace. In China, despite the relatively small amount of aid provided compared to China's own resources, foreign aid has overall made an impact in several ways. It helped faster achievement of China's goals for the universalization of basic education by engaging with the hard to reach parts of the population, strengthening educational services in western China and giving the goal of equity a higher priority. In the major projects it introduced some innovations, new approaches and new thinking within and beyond project

boundaries. Donor-funded projects were able to demonstrate practical applications of government's policy aspirations for changes in teaching, learning, school management, improved quality and the use of ICT in rural schools, and perhaps take more risk in their pilots than would have been possible for the government alone. The projects provided technical expertise and knowledge in project content and project management: "One of the effective lessons that the Chinese partners obtained from our international peers is their professional competencies and performance displayed throughout the project implementation cycle" (Zhang et al., 2004, p. 36). Some projects also supported researchers directly and indirectly through the collaboration and dialogue that took place between foreign and Chinese professionals.

Donor-supported development projects can only go so far in establishing quality and equity in basic education in any context, and especially in the complex and widely varying context of China. They may also bring new problems. While Wang and Bergquist (2003, p. 305) agree that "International loans and assistance have played an important role in developing China's basic education and transforming its schooling system" they also point to the paradox that the reform policies supported by the World Bank increased inequality, resulting in a small sector of elite schools and a large sector of lower quality schools for the masses. Inequalities in basic education persist and in some areas, rural children continue to "eat from a different pot" than their counterparts in the more prosperous areas. Yang et al. (2014) concluded that although education expansion policy over the last decades has contributed to a sharp decrease in educational inequality, gaps between and within regions are still wide. They argue that the urban-rural division is the major contributor to education inequality, followed by social difference (in terms of social status and income). As is often mentioned, the *hukou* system has served to strengthen the disparity and affect investment in education, leading to a greater divide between rural and urban education: "a relatively dominant class is enjoying greater educational opportunities and good quality educational resources, but the disadvantaged are excluded" (Yang et al., 2014, p. 10) The lack of funding for basic education in rural western areas is still seen as the major obstacle to achieving parity in the quality of curriculum reform with more developed areas (Wang & Zhao, 2011).

Inequality in basic education is not static. The situation changes with the ongoing dynamics of a changing society. So while some inequalities in access, participation and quality of experience have been reduced, new ones emerge as rural schools close, village populations diminish and rural workers migrate to work in cities. An ongoing problem is that education in the more advanced regions of China presents a moving target for the poorer western regions.

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