

Emerging Trilingualism among the Dong Minority in Guizhou Province

Jacob E. Finifrock and Doerthe Schilken

Abstract Statistically the poorest province in China in terms of monthly per capita income, Guizhou is overwhelmingly rural with many minority groups such as Miao, Bouyei and Dong living in remote, mountainous areas. Traditionally, the transition model is used in minority dominated schools in which children's mother tongue is used unsystematically at the initial stage to support primary schooling, to shift to using Mandarin Chinese as the sole medium of instruction. This chapter reports the findings of a longitudinal research project that was conducted in a Dong village school over 10 years from 2000 to 2010, with a focus on the effectiveness of a trilingual experiment carried out in 2005 and 2007. Both statistical and qualitative data give clear evidence that a model that aims to develop additive bilingualism in Dong and Chinese is far more effective than the traditional transition model with regard to children's overall school performance, including third language acquisition. Furthermore, the former enabled the children to have more confidence to aim high and more self-esteem to claim their ethnic identity.

Keywords Guizhou · Southern Dong · Language vitality · Instrumental motivation · BICS · CALP · Mother-tongue based bilingual education · Trilingual education experiment · Effectiveness

1 Introduction

In the village of Zaidang¹ (Rongjiang county, Qiandongnan Miao-Dong Autonomous Prefecture, Guizhou Province), a bilingual education pilot project was conducted between 1999 and 2009. This project consisted of an 8 year mother tongue

¹ At the inception of the project, it was understood by the project stakeholders that the project implementation process and results would be openly reported to a wide audience. Thus, publications

J. E. Finifrock (✉) · D. Schilken
Southwest Minorities Language and Culture Research Institute,
Guizhou University, Guiyang, China
e-mail: jacob_finifrock@sil.org

D. Schilken
e-mail: doerthe_schilken@sil.org

based bilingual preschool and primary school programme, which has been previously described in academic journals (Long et al. 2001; Geary and Pan 2003; Malone 2007; Cobbey 2007; Yang 2005, 2006, 2007). Within the overall framework of this pilot project, a comparative study on the impact of mother tongue based biliteracy on third language (English) acquisition was conducted from 2005 to 2007 (Finifrock 2010). This chapter details that project and ensuing results, and aims to shed light on the role of mother-tongue based bilingual education in developing trilingualism. This is achieved by observing two groups of children from Zaidang village, and by comparing the last group of village children to study prior to the bilingual education project with the first group of children, who received their entire pre- and primary school education within the scope of the project. This investigation is set in an overview of the minority language educational situation in Guizhou, specifically of the Southern Dong² people in the autonomous prefecture of Qiandongnan.

1.1 *Situation Sketch (socio-cultural)*

Guizhou is among the poorest of all the Chinese provinces, with a 2006 monthly per capita income of 776.6 yuan, ranking last, when compared to Beijing, which ranks first at 1878 yuan.³ Census data (National Bureau of Statistics et al. 2003) show that a third of the population are members of 1 of the 55 official minority groups recognized in the PRC. However, this does not represent the population distribution, as over 50% of the surface area of Guizhou is designated as a minority autonomous area on different administrative levels—including three prefectures and eleven additional counties. The main minorities are Miao (32.2% of Guizhou's minority population), Bouyei (20.98%), Dong (12.21%), Yi (6.33%), and Shui (2.77%).

Guizhou is overwhelmingly rural. According to the 2000 census, 28.8 million people in this province live in rural county districts, or *xiangcun*, equalling 76.04% of the total population, with the remaining 24% evenly distributed between cities and towns. Studying official household registration records, or *hukou*, this distribution creates the impression of being even more extreme: of the 13.35 million minority people in Guizhou, 12.04 million (91.08%) have a farming *hukou*. This is in striking contrast with the nationwide figure for the Han Chinese majority, of whom only 75.6% have a farming *hukou*.

The ethnic-minority communities of Guizhou can be divided into two separate groups: those who mainly speak the language of their own ethnicity and observe their own distinct culture, versus those communities whose members are largely

both in Chinese and English have included the actual place names involved, and the current authors have continued to use this convention.

² Dong is the Chinese name of this minority group, often called Kam in international literature. The word Kam comes from the Dong people's self-appellation (Long and Zheng 1998).

³ <http://dzh.mop.com/whbm/20061223/0/OSSS7I6df70b8a7z.shtml>.

sinicised. This division can be observed in all major minorities in Guizhou and often manifests itself regionally.

The Dong minority, as identified by Chinese government records, is often viewed by outside anthropologists and linguists as two different groups, Northern Dong and Southern Dong, on the basis of dialectal differences, *inter alia* (Geary and Pan 2003; Ou and Geary 2007). The Northern Dong are generally more integrated with the Han Chinese, and their language use is more heavily sinicised. By contrast, the Southern Dong tend to be more separated from the Han Chinese and are generally less sinicised. The cultural and linguistic vitality of the Southern Dong is fairly high, as evidenced, for example, by the recent entry of the Dong Grand Song into the UNESCO list of intangible heritage⁴, performances of the Dong Grand Song regularly being performed in national events, and Amy Tan's (2008) recent description of the Southern Dong village of Dimen in Liping county in National Geographic Magazine.

Joshua Fishman proposed a system for evaluating language vitality in different communities in 1991, called the Graded Intergenerational Disruption Scale (GIDS). An Extended Graded Intergenerational Disruption (EGID) scale has been proposed by Lewis and Simmons (2010) and is used to effectively assess language vitality. The EGID scale combines elements from the Fishman GIDS scale, UNESCO (2009) Language Endangerment Framework and the Ethnologue Vitality Categories into one assessment tool. The EGIDS places languages on a scale from 1 to 10, with 1 being an extremely vital international language and 10 being an extinct language. Languages ranked between 1 and 6a are deemed as 'safe' languages that are not in danger of becoming extinct in the current generation. Languages ranked as 6b are listed as vulnerable, 7 and 8 as endangered, and 9 and 10 are termed extinct. On the basis of the EGID scale, the Southern Dong language has been assessed as 6a, *vigorous*—"The language is used orally by all generations and the situation is sustainable" with language vitality in some Southern Dong communities possibly being as strong as 5, and evaluated as—"The language is vigorous and is effectively used in written form in parts of the community though literacy is not yet sustainable" (Lewis et al. 2013)).

The Northern Dong, however, over the last 200 years have been much more assimilated into Han culture, and it is estimated that the percentage of Dong speakers amongst the Northern Dong is significantly lower than that amongst the Southern Dong (Long and Zheng 1998, pp. 12–13). Northern Dong language vitality according to the EGID is classified as 6b, *threatened*—"The language is still used orally within all generations but there is a significant threat to sustainability because at least one of the conditions for sustainable oral use is lacking", with a tendency to shift to 7—"The child-bearing generation can use the language among themselves but they do not normally transmit it to their children" (Lewis et al. 2013)).

Figures in the national census include all Dong, whether they are Han-assimilated Northern Dong or linguistically more vital Southern Dong. This combination of subgroups in the national census data creates a very ambiguous picture of the actual

⁴ See: <http://www.unesco.org/culture/ich/en/RL/00202>.

economic and educational reality for most Southern Dong. In reality, the Southern Dong share much more in common, in terms of geography, income, education, and language vitality with the Shui minority, than they do with the Northern Dong. For this reason, referring to the census data (especially for education and income levels) for the Shui people serves to bring the census figures for the Southern Dong into sharper focus. The Shui primarily live in Sandu autonomous county and the neighbouring Libo county in Qiannan autonomous prefecture. Sandu county borders the Dong counties of Rongjiang and Congjiang to the west. Linguistically and culturally, the groups are closely related and their socio-economic and educational situations are comparable. According to the national census (National Bureau of Statistics et al. 2003), the proportion of Shui who had achieved an education level higher than lower-secondary school was 5.3% (Dong 9.8%, Han 16.1%) and their official illiteracy numbers were 19.2% (Dong 9.1; Han 7.3%).

1.2 Guizhou Education

With the exception of a few pilot projects, the language of primary education in Guizhou is fundamentally conducted in some form of Chinese, both orally and in written form. Most students from monolingual minority village backgrounds are equally non-proficient in any form of Chinese when they enter school. In order for students from these environments to succeed, they must learn to speak some kind of Chinese and read and write *Hanzi* (Chinese characters) as well the Romanised sound representation script of *Hanyu Pinyin*, through which students learn the pronunciation and tone of a *Hanzi*. In most cases, the children do not receive any opportunity to develop oral proficiency in Chinese, before being confronted with these two script systems.

If teachers and students in rural primary schools share a minority language, the teachers in lower grades often try to support the learning of the students and bridge the gap between home language and school language by using the mother tongue unsystematically in the classroom. Teachers in these areas often express the view that using the mother tongue systematically in the classroom is a disservice to the students, as it hinders them from performing satisfactorily in the annual comparative examinations that are conducted in Chinese. As children progress through school, it is assumed that their Chinese level will automatically increase and as a consequence, a lesser extent of mother tongue support is given to students. In smaller, more remote villages a large percentage of primary school teachers share the children's language, making unsystematic mother tongue support feasible. Educational authorities are often supportive of this and it is one of the forms of "bilingual education" in Guizhou. However, in schools in small roadside towns or in *xiangcun*, a larger percentage of teachers either use linguistically distant varieties of the local minority language, or do not speak the minority language at all. In these schools, even unsystematic mother tongue support is impossible to provide, leaving minority children to learn entirely through the local dialect of Chinese which is not spoken in their home and is rarely spoken in their village. With increasingly larger

numbers of fully qualified teachers from other areas and often other ethnicities being employed and posted to countryside schools, the likelihood that the L1 of the teachers and students coincides is further reduced, forcing many minority children to study in an unfamiliar second language.

The brand of education used in minority areas of Guizhou can be defined as “transitional bilingual education” (Baker 2006). This type of instruction merely uses the L1, until the children have been exposed to sufficient Chinese as to allow the teacher to stop using the L1 and make further progress in teaching. Without systematic L1 support for students, Chinese is used in all facets of academia. The materials, language, and methods of instruction are all designed to teach mother-tongue speakers of Chinese. For minority children, however, for whom Chinese is a second or sometimes third language, the situation demands an L2 instructional methodology. Consequently, children with a low or middle achievement range frequently end up as limited bilingual mono-literate students in L2. It is often difficult to encourage alternative practices related to oral language usage in the classroom. Teachers, parents and educational officials in these communities are sceptical of the use of the minority language as being truly beneficial to a student’s educational outcomes, influenced by the notion that the use of L1 will delay proficiency in Chinese and risk educational advancement.

The Chinese language is the language of power, control and success, especially in the school environment (Zhou 2001). This leads to a polarisation: on the one end, are children with high instrumental motivation (Hudson 2000), with supportive parents who are literate in Chinese, and with higher abilities, who acquire an effective knowledge of Chinese and embark on a relatively successful schooling career. On the other end, are children with lower instrumental motivation, low parental support or lower abilities, who do not acquire an effective knowledge of Chinese and lose all motivation for learning. Therefore, they either drop out of school or simply proceed with tedious slowness through their school life, waiting for the time when they complete schooling and leave the area to work in factories. In both these cases, the result is language reduction in mother tongue usage. Very few children actually become balanced bilinguals, irrespective of their Chinese language ability or consequential success in school.

As a secondary effect, the time spent in full time schooling separates students from their family and community, for extended periods of time. In children with high instrumental motivation, their success in schooling, leads to prolonged absence from home. Once in junior secondary school, where there is often a mixed ethnic student population, Chinese becomes the major language for social interaction for such students. The lack of initiation into their own culture, (absence from home during certain family events, vanishing rites of passage) leads to a type of cultural estrangement. Older people have informally expressed that by the time children reach primary school, they often do not participate in festivals, a phenomenon which is heightened during the junior secondary school years. When children enter senior secondary school, their initial instrumental motivation is often exchanged for an integrative one, (Crookes and Schmidt 1991) as they feel increasingly uncomfortable going home during major cultural events, and in the long term this contributes to language loss (Baker 2006).

2 English Teaching in Rural Guizhou

In the Guizhou education system, requirements for teachers differ depending on the level of school where they teach. Primary schools are staffed by less qualified teachers than junior secondary schools, which are staffed by less qualified teachers than senior secondary schools. This correspondingly implies that the more highly educated teachers are concentrated at the higher levels of the education system. This situation affects English language education negatively by exposing new English language learners to teachers, who have less English language ability and are unable to model appropriate language use. Students in turn, thus develop inferior English communication habits, poor pronunciation, and the mind-set that they are not 'good' at learning English.

As these students move to junior secondary school, their instructors generally have more English language ability, yet lack the aptitude and skills to appropriately correct the habitual errors created by previous years of inferior instruction. The cyclical pattern continues into senior secondary school, where teachers with the most English language knowledge and communicative capabilities are concentrated. These teachers often report and comment on the fact that their students coming from junior secondary schools are vastly unprepared to study texts at the senior secondary level (Joanna Yates, Shirley Liu, personal communication, 6 April 2011). For students developing trilingual abilities in these rural areas of Guizhou, the simple truth is that the longer a student is enrolled in school the greater the chance that they will be exposed to adequate English teaching pedagogy and natural language modelling, in order to produce a lasting effect on the English language learner.

2.1 Socioeconomic Factors

As mentioned earlier, Guizhou is the poorest province in China and this is particularly true for the minority areas. Since the late 1990s, the living costs in rural Guizhou have been continuously increasing. Two government measures positively impacted the relationship between increasing costs of living and a relatively low but stable farming income: In March 2005, the government abolished the rice tax in Guizhou, but even this reduction in taxes for farmers could not counteract the rapidly increasing costs of living. In 2005 and 2006, the Guizhou administration implemented the new national schooling policies by increasing compulsory schooling to 9 years and at the same time, abolished the tuition fees for primary and middle schools (Grades One to Nine). For minority families with children, many of whom do have the two children allowed for minority families with a farming *hukou*, this initially led to considerable savings.

Between 2000 and 2010, an increasing number of people were leaving their farms for at least half the year, to work outside the province as migrant workers, a phenomenon known in Chinese as *dagong*. While in 2000, the percentage of minority people who were working their farms was between 92.2 and 94.8%, only 88% of

the Han ethnicity with a farming *hukou*, continued to do so. During the following 10 years, these numbers rose significantly, though the exact number will only become available in the yet unpublished 2010 census report. However, for the Dong people in Zaidang, the high point of people leaving their towns and villages to *dagong* was reached in 2007 and 2008, just before the economic crisis began to impact China and led to multiple factory closures. Since 2003, when compulsory education was increased from 6 to 9 years, a growing number of families found themselves in an economic bind. They could permit their children to continue education beyond Grade Nine, which in itself was a significant financial burden. But that could only be accomplished if at least one adult left for *dagong*, or, the child quit school after Grade Nine at the age of 16 or even earlier, if he/she managed to evade the system, and generated income for the family's second child by going *dagong*. In Zaidang and other rural areas in Guizhou, the pressure to forego education for income, even prior to the completion of Grade Nine, is extreme, especially for mediocre students, who are not expected to qualify for senior secondary school.

2.2 *Situation in Zaidang*

At the time of the inception of the Dong-Han Bilingual Pilot Project in 1999, the project village of Zaidang in Zaima district had a population of about 1500⁵. All community members spoke Dong and the level of Chinese spoken by the adults differed, depending on their previous education levels. Less than ten adult residents of the village had completed 12 years of education. As a village, Zaidang was sufficiently large to accommodate a primary school, but in 1999, the village could not sustain Grades Five and Six due to student withdrawals from schools and a lack of qualified teachers. Students wishing to continue their education until the end of primary school had to transfer to the primary school in the village of Bakuang. They would board at the school in Bakuang from Monday to Friday, then return home to spend the weekend in Zaidang. The change of the national schooling policy to 9 years of compulsory schooling and the abolition of school fees for primary schools reduced the dropout rate significantly, with the result that by September 2005, the village was able to sustain Grade Five, and by 2007, Grade Six classes commenced too.

Children in Zaidang village converse exclusively in Dong at home, and have had little exposure to Chinese, prior to attending school. Finifrock (2010, pp. 37) reports that in 2005, fewer than ten percent of Grade Five students in the English Research Component of the Zaidang project had travelled on any occasion to a predominantly Chinese speaking area. In 1999, the village obtained access to the power grid, and televisions with Chinese programming were slowly available in the village. When the English Research Component commenced in October 2005, fewer than fifty

⁵ For more details on Zaidang village at the time of the inception of the Bilingual Education (BE) project, see Geary and Pan (2003).

percent of the homes in the village had televisions, and there was no print media accessible in the village.

From 2005 onwards, a greater number of adults from Zaidang commenced work in the factories of south-eastern China, directly impacting the schooling pattern of countless students: Some students accompanied their parents for one or two semesters at a time. A different group of students commuted back and forth to the primary school in Bakuang, because the children could reside in school dormitories, while their parents went to *dagong*. It was also a common practice for parents to leave their children behind, to be taken care of by older relatives, who were often less educated than the students' parents.

3 Theoretical Background

Both the Dong-Han Bilingual Education Pilot Project and the English Research Component were based on the premise that early education, especially literacy in the learners' L1, systematic teaching of oral L2 before L2 literacy, oral L3 instruction via L1, and ongoing bilingual instruction and literacy via both L1 and L2, have a positive impact on children's learning ability in general and the learning of L1, L2 and L3⁶ (Baker 2006). The target of the project was to produce balanced bilinguals in order to support cognitive development, promote school retention, and lay the foundations for a successful schooling career. In order to achieve this, the objective was to ideally reach a threshold, where bilingualism had no negative effects on the children and where the impact of bilingualism was a positive one (Baker 2006, pp. 170–173). Based on research done by Jim Cummins, Colin Baker, Nancy Hornberger, and Ellen Bialystok, Susan Malone (et al. 2008, 2010) formulated models, which have been used by SIL International in different forms and contexts for bilingual and multilingual education. The term bilingual education was used in the context of both the BE Project and the English Component, to refer to the number of languages used as medium of instruction, within the school. Since English was taught as a subject only but not used as an instructional language, the project was at all times referred to as bilingual, even though through three languages were taught and participating children, may have successfully developed as trilingual (hence our use of the term “emerging trilingualism”).

Based on Cummins' Threshold Theory and his distinction between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP), material developers within the Zaidang Project concluded that the

⁶ The Dong Pilot Project was introduced successively in each grade level, as the top cohort reached that grade. Therefore L3 (English) became part of the teaching within the project, as the children reached the grade in which English was to be taught according to the local stipulations of the time (Grade Four). To research the impact of the teaching of L1 on the acquisition of L3, the English Research Component was therefore conducted when the children reached Grade Five.

children needed an oral head start before entering a learning situation, where they were taught L2 literacy or had to rely on any Chinese language ability, when it was used as an instructional language. Children studied 1 year of oral Chinese before starting Chinese literacy and continued these lessons through the first year of Chinese literacy.

As explained above, the assumption of consecutive bilingualism that underlies the Guizhou educational system is not systematically supported in schools but rather assumed as an automatism. Generally, the only contact village children have with the Chinese language⁷ before entering preschool/primary school is through television, and in primary school, Chinese literacy is systematically taught whereas oral Chinese is not. This means that the language learning process for Chinese is a type of unsupported language acquisition, rather than systematic language learning (Krashen 1985). Hence, children acquire a restricted amount of BICS; however, they are highly pressurised to acquire CALP, both orally and in writing, (Cummins 1984, 2000; cited in Baker 2006, pp. 174–177) in order to perform credibly on tests. In Mathematics for example, children are taught very specific terms and related Chinese characters very swiftly. These characters and terms derive from everyday language in Chinese, but these terms are often unknown to minority children, as they have not yet developed BICS in Chinese. This makes the learning of the terms, the learning of the characters and the learning of the concepts significantly more difficult for them, than for children who have high oral BICS in Chinese.

4 Implementation and Methodology

The project was initiated by a Dong professor at Guizhou University of Nationalities, and implemented through the cooperation of many stakeholders, including the Guizhou Province Minority Affairs Commission, the Rongjiang County Education Department, the village leaders and school of Zaidang, and SIL International (Geary and Pan 2003). Instruction started in the project in September 2000 and continued until January 2010. Prior to the project, there was no preschool or kindergarten available to children in Zaidang village. Students began school in Grade One, using the national curriculum in Chinese, which is not commonly spoken in the village. The headmaster of the school (at the time of the study) and teachers who were involved in the BE project were long-standing permanent village residents, and native Dong speakers. In addition to the nine primary school teachers, six preschool

⁷ When the term Chinese language is used, this refers to multiple varieties. According to national law, Mandarin Chinese is the language used in schooling. In Guizhou, different varieties of Chinese are used, most of them related to Mandarin Chinese. Many teachers in the *Dong* area do not speak very good Mandarin Chinese, but tend to use local forms of Chinese in the classroom. This means that sounds that are especially distinct in Mandarin Chinese, in comparison with Dong, are not well taught in primary school.

Table 1 Language of instruction comparison for groups A and B

	Group A Language of instruction <i>start of chinese</i>	Group B Language of Instruction <i>start of chinese</i>
Lower preschool	1999/2000 Dong	1999/2000 Dong
Upper preschool	N/A	2000/2001 Dong
Primary one	2001/2002 Chinese <i>start yuwen (written chinese)</i>	2002/2003 Dong <i>sart oral chinese</i>
Primary two	2002/2003 Chinese	2003/2004 Dong and Chinese <i>start yuwen (2nd semester)</i>
Primary three	2003/2004 Chinese	2004/2005 Dong and chinese
Primary four	2004/2005 <i>Start of English</i> Chinese	2005/2006 <i>Start of English</i> Dong and chinese
Primary five	2005/2006 Chinese English research component	2006/2007 Dong and chinese English research component
Primary six	2006/2007 Chinese	2007/2008 Dong and chinese

teachers were recruited by the project. All the teachers were trained to use methods for using the Dong language as the medium of instruction for classes that were both modern and learner-centred.

4.1 Project Implementation

The project was implemented in yearly stages. The first stage commenced in September 2000, with the inception of four preschool classes representing two grade levels. These two grade levels will be the focus of our comparison in this chapter. For ease of description, we will simply label them Class A and Class B. Class A was initially comprised of children who were 6 years old (divided into two sub-classes of fifteen and sixteen students), and Class B of children who were 5 years old (in two sub-classes of eighteen and seventeen students). During the first stage of instruction, both grade levels were taught the same mother tongue based preschool content that had been developed by the project (Geary and Pan 2003, pp. 283–4; Table 1).

In stage 2, class A (now 7 years old) entered the regular primary school curriculum of the area with Chinese as the language of instruction and no systematic mother tongue support, and was therefore referred to as the “last non-project class”. Class B (now 6 years old) continued for a second year, with more preschool studies

in Dong, (upper preschool) while a third group (Group C, 5 years old) entered lower preschool.

In stage 3, beginning in September 2002, Class B reached primary Grade One. They were taught most subjects based on the content of the national curriculum through the medium of Dong. In the second semester of Grade One, oral Chinese was added as a subject, using a method called Total Physical Response (TPR) as outlined by Asher (1965).

It was only in stage 4, (Grade Two for Class B from September 2003) that children began receiving instruction through the medium of Chinese, using Chinese textbooks in an increasing number of subjects. In the second semester, they started studying written Chinese in *yuwen* class. They continued to study the Dong Language, Music, and Ethics, using Dong as the language of instruction (up to Grade Six). Following a specific progression, Class B used only 4.5 years (instead of 6 years for Class A) to study 6 years of *yuwen* texts. Through this progression, they were eventually able to catch up with Class A, in terms of Chinese language instructional content, by the end of Grade Six.

In the following years, the teachers (Grades Three to Five) were constantly encouraged to use both Dong and Chinese systematically as the medium of instruction, but the actual implementation was determined based on the authority of the teachers and was not controlled or documented. The informal impression from class observations was that the amount of systematic dual language usage increased during the later stages of the project, as the teachers gained further confidence in the methodology. However, a small number of teachers in the project school did not sufficiently incorporate systematic bilingualism and biliteracy in their teaching, in pursuance of implementing the prescribed practices in classrooms.

Class A reached Grade Five in September 2005, followed by Class B in 2006. During this fifth year of primary school, the children entered the English Research Component of the project (see below), to determine whether there was any indication that mother tongue based education had any impact on third language (English) acquisition (Finifrock 2010).

Classes A and B completed Primary School in 2007 and 2008 respectively, and all students who completed Grade Six appeared for the countywide examination.

4.2 *English Research Component*

The English Research Component was designed as a baseline study to examine the effects of participation in the Zaidang BE program on English acquisition. It was understood from the outset that because the village school had limited enrolment, the quantitative data would be based on a small sample and should not be taken as incontestable “scientific proof”. Nonetheless, the Zaidang BE project offered a rare opportunity for research, as it was unique in its design and methods, and the first project of its kind in Guizhou. The English research component was carried out between October 2005 and April 2007 in Zaidang village.

4.3 Data Collection Procedure

As previously stated, children in Class A had received all of their previous education in Chinese (except for 1 year of Dong preschool in 2000–2001) and were in Grade Five at the time of the study. Children in Class B were taught in Dong during 2 years of preschool, and transitioned into using Chinese. These students were a grade behind Class A, and both groups were approximately the same age during their respective year of instruction. Every student in each group was an L1 Dong speaker who had lived exclusively in the Dong speaking area. Each class had only received 1 year of English instruction prior to the study, not the 2 years mandated by the government. The year of English instruction that each group received prior to the study created no discernible impact (see Finifrock 2010).

A notable difference between the groups was that the Class A students entered their sixth year of schooling, while Class B students entered their seventh year of schooling, by virtue of the fact that they had 2 years of preschool studies, as compared to 1 year of preschool for Class A.

No socioeconomic control was exercised on the study, as there was no discernible socioeconomic stratification in the village. All efforts centred on rendering identical instruction to each group. In Class A, there were 34 students (19 boys and 15 girls) during the first semester. Their ages ranged from 10 to 14 years. Six students (2 boys and 4 girls) transferred out of the class between the first and second semesters, leaving 28 students (17 boys and 11 girls). Class B started with 24 students (10 boys and 14 girls), ranging in age from 9 to 13 years. Eight students (five boys and three girls) transferred from the school between semesters, thus leaving sixteen students in all (five boys and eleven girls) in Class B.

4.4 Teaching Method and Content

The two English teachers for the English Research Component were foreigners, and were both professionally trained teachers. Throughout the course of two months of training, each group received seventy class periods of English instruction, with each period lasting for 40 min. The seventy sessions practically equalled a complete year of English studies, for a Grade Five class in rural China. The students received pre-instruction evaluations and were periodically tested in the different skills imparted to them throughout the year, and upon completion of the 70 sessions, the students were further evaluated individually. The teaching methodology employed was primarily Total Physical Response (TPR), as first proposed by Asher (1965) and additionally, outlined by Krashen (1982). Songs, games, chants, posters, and pictures with simple text captions were also integrated into each lesson to provide broad exposure to language and to maintain interest. The students were introduced to the Grade Three text, which was primarily used as a TPR prop to learn its content, such as letters of the alphabet, body parts, numbers, and colours. Supplementary props, such as coloured cards or other realia were used on a daily basis, to aid in

Table 2 *t*-test results between Class A and Class B final testing performance

Measure	Max. score	Mean _A	Mean _B	P value
Week 7 spelling dictation	14	6.89	11.38	0.007**
Alphabet recognition	26	19.04	24.94	0.006**
Noun recognition	14	4.29	9.63	0.0003**
TPR evaluation	13	8.71	11.13	0.015*
Oral interview	10	5.64	7.35	0.048*

active processing, memory, and recall. Instructional content naturally increased in complexity, as students mastered basic content through TPR and were able to enter into more conversational content.

5 Results

5.1 English Project Results

5.1.1 Post-test Results

The data collected during the 2 year English Research Component was evaluated using standard statistical *t*-tests. The empirical results of the post-testing showed significant differences between the two groups, with Class B outperforming Class A on all five post-instruction measures. The literacy-based measures were significant at the 1% level. The TPR test and oral interview were both significant at the 5% level (see Table 2).

Both the quantitative and qualitative data evince differences between the two groups, with respect to learning English. Such findings are in concert with the belief that bilingual competence in both L1 and L2, assists in learning an L3 (Baker 2006; Cummins 2000). Class B significantly outperformed and surpassed Class A, as proven statistically in the three literacy dependent measures (the Week-7 spelling dictation test, the final English alphabet test, and the common-noun reading recognition test) and this was to be expected with the emphasis the Zaidang project placed on reading and writing in a Romanised script. Students with 6 years of practice, using a Romanised script and phoneme-based pronunciation system, would certainly be expected to have a distinct advantage in English literacy over students who were only briefly introduced to Pinyin and rapidly advanced into studying *Hanzi* (Chinese characters). The TPR and oral interview test results were of particular interest, because the results were not dependent on script similarities between *Dong* and English. It appeared reasonable to partly attribute the differences to participation in a systematic additive bilingual education programme. The Interdependence Hypothesis Cummins (1986) suggests that a child's second, or in this case,

third language competence is partly dependent on the level of competence already achieved in the first language. Also relevant at this juncture, are the possible cognitive advantages of being more functionally bilingual and biliterate (Baker 2006; Lee 1996).

According to Bialystok (1998), bilinguals display some cognitive advantages over monolinguals in nonverbal tasks that require selective control. In this case, however, we were not comparing bilinguals with monolinguals, but rather bilingual biliterates with limited bilingual monoliterates in L2, within an ethno linguistically homogenous community. In addition, we were observing linguistic and verbal problem solving skills, in both the TPR response and the oral question and response measures. The more complex items in these measures, such as “Touch your right ear with your left hand” and “If today is Saturday, what day is it tomorrow?” required higher-level processing abilities to understand and answer accurately. It was a probability that Class B had developed a superior language-related problem solving ability and language-processing ability, due to their deeper understanding of their own language and subsequent ability to engage with Chinese, and then English, at a more sophisticated level than Class A. It could be argued that the methods that were used to teach Class B, starting in preschool, were equally deserving of credit as the language of instruction, for producing the differences that were documented between the two groups in the study.

Determining the degree of influence is difficult to factor into the results, because the methodological intervention was bundled together with the linguistic intervention. However, in a setting like Zaidang, it would be impossible to successfully employ similar methods during the earliest years of education using any means other than a child’s L1. In qualitative terms, students in Class B displayed characteristics similar to monolingual Chinese students from the more developed regions of China, where teaching methods and materials were more modern and learner-centred (Hu 2003). Class B exhibited traits of successful language learners such as self-confidence, intrinsic motivation, problem-solving ability, and willingness to take risks; conversely, Class A largely revealed no such characteristics. It was reasonable to assume that after becoming increasingly biliterate in Dong and Chinese, Class B developed confidence that they would learn English competently, because they had experienced previous language-learning success with Chinese. In addition, it could also be surmised that the value that the project had conferred on their language and culture, had accorded Class B the motivation that was painfully lacking in Class A. As Cummins (2001, pp. 19) states: “When the message, implicit or explicit, communicated to children in the school is ‘Leave your language and culture at the schoolhouse door’, children also leave a central part of who they are—their identities—at the schoolhouse door. When they feel this rejection, they are much less likely to participate actively and confidently in classroom instruction.”

5.2 *English Research Component Qualitative Results*

Finifrock (2010, pp. 41–42) reported that there were extreme qualitative differences between the classroom behaviours of Class A and Class B, during their Grade Five year.

A teacher journal was maintained to record qualitative observations. These notes indicated that Class A was:

- Consistently more apprehensive to answer questions than Class B.
- Less confident encountering new material or being asked to demonstrate understanding of previously studied content.
- Less willing to work cooperatively to decode new written content.
- Less proficient in demonstrating mastery of *Hanyu Pinyin* and *Hanzi*.
- Less likely to attend class.
- Less likely to complete assignments.
- Less meticulous in their written work.
- Less interested in scholastic activities.
- Less likely to state long-term academic goals.

5.3 *Grade Six examination performance for Class A in 2007 vs. Class B in 2008*

Regional examinations in language and Mathematics, upon completion of Grade 6, use only Chinese characters and are administered at a neutral test site. Although the examinations differ in details from year to year, the content and level of difficulty is generally accepted to be similar, and results are adopted by education officials to evaluate school performance. The test results given to the project by Zaima school district, but not controlled in any way by the Zaidang Project, suggested that the biliterate Class B students not only displayed an advantage over Class A for English literacy, but also for literacy in Chinese and especially in Mathematics. The 17 students in Class B scored higher than the 25 students in Class A, who completed Grade 6. Out of 100 possible points for each subject, Class B averaged 55 points for language and 55 points for Mathematics, whereas Class A averaged 28 points for language and 16 points for Mathematics, as presented in Table 3.

2008 was the very first year that students from Zaidang School (Class B) participated in a Grade Six test. In previous years, (including 2007 when Class A sat for these examinations) all children from Zaidang aiming to attend Grade Six, were compelled to attend the school in a neighbouring village.

The project was also provided data for the 2008 testing year, which allowed us to compare students in Class B with other schools in Zaima *xiang*, who took the same examination on the same day; although no parallel data was available for Class A. The data demonstrated that students educated in the Zaidang project revealed no evidence of being hindered or slowed down by the amount of time devoted to L1

Table 3 Class A and B Sixth Grade Examination Scores

	Chinese	Math	Comprehensive
Class A 2007 (n=23)	28.28	15.52	43.8
Class B 2008 (n=17)	54.94	55.41	110.35

Table 4 Class B (Zaidang) sixth grade examination performance 2008 district comparison

	Chinese	Math	Comprehensive
Mean District score	46.66	33.14	79.80
Village 1	47.18	31.20	78.38
Village 2	51.13	44.79	95.92
Village 3	46.79	<i>27.84</i>	74.63
Village 4	23.72	<i>19.09</i>	<i>42.81</i>
Village 5	36.82	<i>24.46</i>	<i>61.28</i>
Zaidang	54.94	55.41	110.35
Village 7	49.84	38.59	88.44
Village 8	58.80	37.80	96.59
Zaidang+	56.57	52.13	108.70

Marks in italics: lower than average; Marks in bold: higher than average; only those averages calculated by t-test as being significant were marked

instruction. On the contrary, the performance of Class B students surpassed that of students of other schools in the district, even students from more affluent areas, despite learning for only 4.5 years in *yuwen* class.

Three hundred and fifty-two students were tested, of whom 299 were of Dong nationality, 32 of Miao nationality and 21 of Han Nationality. Of these, the ratio was 184 male students and 168 female students. The schools were located in eight villages in Zaima district, with one village boasting two schools. The children were examined in two subjects, Chinese and Mathematics, both marked on a theoretical scale from 0 to 100. The marks were then added to return a third value on a scale of 0–200. All tests were completely written as well as administered in Chinese.

Seventeen students from Zaidang village participated in the examinations. However six additional students who took the examinations, after having studied in a neighbouring village, (Village 3 in Table 4) for up to four semesters, had previously studied for at least six years in Zaidang and been part of the Zaidang project to a certain extent. These children joined the school in Village 3 for a varying number of semesters, beginning from the second semester of their Grade Four year. Five of them attended the school in Village 3 for four semesters, and one child for merely 2 semesters. For this reason, two average marks were calculated for Zaidang: “Zaidang” for those students who appeared for the examinations after attending the final semester in Zaidang (Class B) and Zaidang + including the six students who had attended several semesters in Village 3, and finally, appeared for the examinations as “Village 3 students”.

Among the ten highest scoring students in the district were two students from Zaidang, including the student with the overall highest marks. The highest achieved marks were 90 for Chinese, 86 for Mathematics, and 169 Comprehensive.

6 Post-Project Results

6.1 *Interview methodology*

In June 2010, interviews were conducted with fourteen former project students from both Class A and Class B, along with background interviews with their teachers and their parents. The children at this stage were in Grades Two and Three of junior secondary school. The aim of these interviews was to perform a comparative qualitative assessment of the children's attitudes toward their three languages, their home culture, and education. With permission obtained from the local school authorities, the interviews were conducted in the children's schools, by a female Dong employee of the Zaidang project. A male Dong project employee was also present at the interviews, and he took notes, parallel to a continuous audio recording. A Dong education official and a foreign researcher were present at the interviews too. (During the interviews in the first two schools, some police officers were present as observers but they were not within the interview zone of the room; they were sufficiently far away from, and beyond the sightline of the students, so as not to be disruptive.) The students were welcomed in English by the foreign researcher, known to all of the students at least by sight. They were asked their English names, given to them in Grade Five, during the English Research Component. The interview was subsequently conducted by the Dong project personnel, in the students' language of choice (all students opted to be interviewed in Dong).

The scheduling of the interviews did not facilitate interviewing those students who had dropped out of school, to work in factories, as they only returned home for the Spring Festival holiday.

The student interviews consisted of eight main questions (see below), encompassing: experience in early schooling, experience of learning Chinese and English, perceptions of current activity (schooling) and future professional perspective, perceptions of home village and festivals, language of thought and finally, impact of learning written Dong.

These questions were chosen based on three areas of interest, stemming from the English Research Component:

1. The impact of mother tongue instruction on language attitudes and learning.
2. The impact of mother tongue instruction on perceptions of social and linguistic background.
3. The impact of mother tongue instruction on general attitude of the students' current situation and future opportunities.

As noted above, attitudinal differences towards education and different levels of Chinese ability between Class A and Class B were observed during primary school. Towards the end of junior secondary school, a significant number of students from Class A had already dropped out of school, hence, it was a predictable conclusion that only those students with a higher level of Chinese and a favourably affirmative attitude towards education would continue in school. For this reason, two potential

outcomes could be anticipated from the research, with reference to the direct impact of early mother tongue instruction: If no difference in attitude and perception between group A and B could be identified, it could be tentatively concluded that the impact of mother tongue schooling was especially high among the middle and lower tier students in Class B. The reason being that the mother tongue intervention had imparted to them the requisite skills and motivation to persevere in school, while their counterparts in class A had quit school. If, however, the research indicated a systematic difference in attitude between even the higher achieving members of both groups in at least some areas at this stage, it could indicate an overall impact of mother tongue instruction on all members of Class B, because we would see differences even in the more successful students in both classes.

6.2 *Interview Data*

The following interview data contribute an insight into the self-perception of several students in both Class A and Class B, when they were in their second and third years of junior secondary school respectively. The data reveal their thoughts regarding their education, memories of learning Dong, English, and Chinese, and their perceptions of their current academic abilities, as they progress in the future. As the full content of the interview responses exceeds the space assigned for this chapter, the answers are summarised below, and one or two representative quotations from each class, are included for reference.

QUESTION 1: Could you please tell me about some of your good and bad experiences/impressions from your education from preschool through Grade Three?

In general, both classes had positive memories of their schooling, and most negative memories had to do with unhappy interpersonal experiences with other children.

A1 Female: "Singing Dong songs for the guests who come here for travelling, and also we sang songs when the village had some activities, the old people and teachers taught us those songs. The unhappy thing was quarrelling with other children. I never learned Dong writing, my parents did not want me to learn, [they] said learning Dong is no use".

B3 Male: "We learned Dong from Grade One to Three in primary school. I think Dong songs are pretty good. [One year] we didn't have enough time to finish the Chinese text book, so it took the Dong course time".

It was interesting and significant to note the fact that almost every student mentioned singing in Dong as being an important part of their school experience.

QUESTION 2: You first studied some Dong, then Chinese, how was your experience studying Chinese? How do you feel about it now?

Overall, Class A reported more hardship and mental stress, in studying Chinese than Class B. Class B generally reported that they learnt Chinese with ease and simplicity, and currently, experienced greater satisfaction learning Chinese than Class A.

A5 Female: "When I started to learn Chinese I just memorised it, I did not know the meaning and I did not understand".

B3 Male: “Dong is very similar with Chinese pinyin, but I think Chinese pinyin [is] easier to learn than Chinese characters. Now I like to learn Chinese”.

QUESTION 3: In junior secondary school, when you started learning English, how was it for you?

Both classes reported difficulty in studying English, though Class B students were inclined to express their enjoyment of English study, more willingly and enthusiastically.

A5 Female: “I started to learn English in primary school; I learned it by memorising during that time. My memory is bad, so it was very difficult for me to remember the words. The way to learn English is the same as Dong, spelling and reading are similar as well. Hard to remember the words, because they are very similar”

B6 Male: “Mr. Chen⁸ came and taught us when we were in primary school. From that time, I liked English and after I went to junior secondary school we learned phonetic symbols, I still like it [English]. The way to learn English is the same as Dong, easy to read but difficult to write”.

QUESTION 4: What are your current thoughts about studying?

Both classes equally acknowledged the value of studying and their desire to learn.

A5 Female: “I feel that studying is very good”.

B6 Male: “When I first went to school, it was a lot of fun. After I went to junior secondary, I heard the teachers say that studying can get me a good job and is very useful, so I even enjoyed studying more”.

It was especially noteworthy that class B students articulated their enjoyment of their early years of education; years that emphasised the Dong language as the medium of instruction.

QUESTION 5: What language do you use when you think about problems?

Answers to this question revealed the students’ self-perceptions of internal language processing. It was expected that Class A would report less balance and would favour Dong usage over Chinese. Class B had more students who reported favouring Chinese (4 to 3), with one reporting balance. Class A favoured Dong 5 to 1, though they also reported using Chinese to think frequently.

A2 Female: “First I use Dong, sometimes I also use Chinese”.

B3 Male: “I think in Dong, Chinese, and English, but most of time I think in Chinese”.

These representative quotations indicated that although class B devoted more time to Dong language studies than class A, they possessed a self-perception of greater cognitive functioning in Chinese.

QUESTION 6: Does having learnt Dong writing have any influence on you now?

Even though no students in Class A were functionally literate in Dong, all of them reported positive attitudes towards, and usefulness of Dong literacy, and even voiced remorse that they were not literate in Dong. Similarly, Class B overwhelmingly asserted the usefulness of Dong literacy.

A1 Female: “I regret that I didn’t study Dong writing”.

⁸ Mr. Chen is a reference to Jacob Finifrock.

B6 Male: “Yes, it does. When I study English, I can use [Dong] to remember pronunciation. It’s helpful for learning English. It also was helpful for learning Hanyu Pinyin”.

Several students in both classes referenced the usefulness of using the Dong language, while writing down the lyrics of traditional songs.

QUESTION 7: What would you like to do when you are an adult? How will you go about realising that goal?

Finifrock (2010) reported that Class A had difficulty articulating future goals beyond manual labour. Yet 4 years later, five out of the six interviewees from Class A who continued in school, were able to eloquently enunciate their goals. Obviously, by this time, about two-thirds of the class had already dropped out of school, and the remaining students were generally perceived as the higher-performing members of the class. (Unfortunately, at the time of writing, no students from Class A remained in the school system, with the vast majority leaving the area to work in factories on the East coast. All students from Class B that were interviewed currently remain in school.) Class B fundamentally enumerated the same types of goals, as class A.

A6 Female: “When I am older I want to be a doctor”.

“Study hard.”

B3 Male: “If my English is good enough, I want to go and study abroad or I can use English to communicate well when I am doing things [related to work]”.

“Take notes well in class, then review after class. Read more”.

QUESTION 8: How do you feel about life in the village the way it is now? Do you enjoy the festivals?

Students in both classes held favourable views towards the festivals, with Class B expressing a seemingly more pragmatic yet rustic view of festivals. They tended to portray a first-person involvement in festival activities. Both classes affirmed grave dissatisfaction at the underdeveloped condition of sanitation facilities in the village.

A4 Female: “The village seems not to have changed”.

Yes [I like it]. Sometimes it is very quiet, and sometimes it is very lively, like when there is the sound of firecrackers during Spring Festival.

B1 Female: “Now in the village life is much better, but I still feel it is not good enough”.

We usually have the festivals such as Dragon Boat, Spring Festival and San Yue San etc. During these festivals sometimes there are some people who come from other villages to sing with us. We sometimes also sing to welcome outsiders who come to visit. I also like these festivals very much.

7 Current Situation

Following the above interviews, which took place in 2010, the nine students from Class A who completed junior secondary school, received the opportunity to appear for the senior secondary entrance examination, or *zhongkao*. However, only one

Table 5 Dropout and completion rates between the two classes

	Class A (n=27)	Class A%	Class B (n=16)	Class B%
<i>Dropped out following:</i>				
Grade 5 ^a	1	3.7	0	0
Grade 6 ^a	7	25.9	0	0
Grade 7 ^a	8	29.6	0	0
Grade 8 ^a	2	7.4	3	18.7%
<i>Completed Grade 9^a</i>	9	33.3	13	81.3%
<i>Qualified for Senior Secondary School</i>	1	3.7	11	68.8%

^a denotes compulsory education

of the students from Class A passed the *zhongkao* (Student A6 in the interviews transcribed above, who wished to become a doctor), but because she did not receive conclusively credible scores and the cost of senior secondary school was significant, her parents convinced her to forego further schooling and encouraged her to leave the area to *dagong*. Currently, there are no students from Class A who are enrolled in what would have been their second year of senior secondary school; the vast majority having left the area entirely to *dagong*.

Class B took the *zhongkao* in the spring of 2011. Of the 13 students who completed junior secondary school, 11 of them passed the *zhongkao*. All 11 students are currently enrolled in Grade One of senior secondary school (Table 5).

8 Conclusion

This chapter examined the differences in academic performance between two groups of L1 Dong-speaking children. One group was previously instructed, primarily via a transitional model to Chinese (a weak model according to Baker 2006) and the other through Dong and Chinese additive bilingual education. The group receiving education bilingually in Dong and Chinese consistently outperformed the former throughout the course of their schooling. The bilingually educated students demonstrated a greater ability to learn English, had higher examination scores in English, Chinese, and Mathematics, and perhaps most importantly, have persisted longer in education, increasing their likelihood to develop trilingual proficiencies. Qualitative differences in approach to learning and attitudinal differences were also observed that point to the bilingually educated students being more balanced bilinguals. They also displayed more positive attitudes toward education in general, and especially towards language learning, thus demonstrating greater potential to be functional trilinguals. When combined, these differences are intriguing, especially considering that the students participating in the study come from an isolated and homogenous community. As many of the factors affecting education, such as socio-economic and language use issues, are identical for these two groups, it follows that

prior participation in the Zaidang Bilingual Education project, in which L1 and L2 (both spoken and written) were developed using modern learner-centred methods, should be granted considerable significance in determining the fundamental reason for the differences.

The limitations of the current study are apparent: the small sample size and the fact that Class B received one extra year of formal education than Class A (2 years of preschool in contrast to 1 year), make it difficult to generalise all results. Though the period of preschool education does not necessarily have a linear effect on resulting education levels, the additional practice in formal schooling might adequately affect learning attitudes in the lower grades. Further research is needed to examine these findings on a larger scale and in greater depth.

The results of this study, which appear to support the findings reported by Cummins (2000) on the subject of L3 acquisition, could be accurately considered applicable to language minority communities such as the Dong, (in isolated ethnic minority villages of China) who continue to have a strong L1 identity and extensive language usage, yet must additionally learn both Chinese and English.

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