

In what ways may the bilingual education system in indigenous Australian communities be improved?

**International Baccalaureate Extended Essay:**  
**In what ways may the bilingual education system in Indigenous  
Australian communities be improved?**

**Name:** Maria Shilova

**Subject Area:** Psychology

**Supervisor:** Geoff Taylor

**Examination Session:** November 2010

**Word count:** 3268

In what ways may the bilingual education system in indigenous Australian communities be improved?

**Abstract**

The Aboriginal-English bilingual education program in the Northern Territory was recently reduced from 5 hours daily to only 90 minutes. The trigger for this reduction was a set of national test results, which displayed no significant improvement in the test results of Indigenous students. The bilingual program was deemed to be therefore of little value and a worthless pathway to follow in the improvement of Australian Aboriginal lifestyle. However, this program is not the first of its kind: bilingual education and bilingualism have been present for centuries across the globe. This paper compares successful and unsuccessful bilingual education systems in Mexico, Canada, Singapore, New Zealand and others, and deduces some of the vital factors necessary for the success of a bilingual program. Through consideration of these factors and their prevalence in the former Northern Territory bilingual program, it is possible to pinpoint some of the exact reasons as to its failure, and make recommendations for its improvement and possible future success.

### **Acknowledgements**

I would like to extend my thanks to Geoff Taylor my supervisor, to Judy Talberg and to Carrie Bundy: I could not have written this without your support and thorough criticisms. I would also like to thank the Australian National Library and the Canberra College for providing necessary research materials for this work.

## Contents

Abstract.....	i
Acknowledgements.....	ii
Contents.....	iii
Introduction.....	1
Section 1 .....	1 - 4
<i>Socio-cultural and cognitive benefits of bilingualism- importance of early, systemized bilingual education – typology and most common type of bilingual program</i>	
Section 2 .....	4 - 5
<i>Review of the Northern Territory program</i>	
Section 3 .....	5 - 7
<i>Community support in the Spanish bilingual program versus the Maori program – Importance of community support in the Northern Territory program</i>	
Section 4 .....	7 - 10
<i>Socio-economic factors in Singapore’s bilingual program versus in Mexico’s program – Importance of high socio-economic environment in the Northern Territory program</i>	
Section 5 .....	10 - 11
<i>Funding factors in the success of Canada’s bilingual program – importance of increased funding for the Northern Territory Program</i>	
Conclusion.....	12
Reference List.....	13 - 16

**In what ways may the bilingual education system in Indigenous Australian communities be improved?**

Bilingualism, the fluent knowledge of two languages, and indeed multilingualism has always been a globally valued human attribute (Bhatia T, 2008). With globalization, spreading of the English language (Baker C, 1997) increased human migration and hence multiculturalisation (United Nations, 2009), the knowledge of two languages has become near-commonplace and in some cases necessary for successful modern lives. In the early 1970s, an unsuccessful Indigenous Australian bilingual education program was implemented in order to promote knowledge of English simultaneously with native aboriginal languages. There are several reasons to maintain such bilingual education in these communities; indeed, bilingualism has been shown to have many benefits, both social and cognitive. However, in order to provide a successful education program, the previously implemented system in Australia must be significantly modified. Through evaluation of successful bilingual programs across the globe, it is possible to make some recommendations as to how this may be done.

There are numerous benefits to teaching bilingualism, both social and cognitive. Every fortnight, a language dies out (Enduring Voices Project, 2010), taking with it associated cultural and historical knowledge. The Kallawaya language (Bolivia), for example, was once used to pass on extensive knowledge of Bolivian tribes of the Amazon jungle's medicinal plants. This language is currently known by approximately 100 speakers globally, and once it is no longer passed on, such vast medicinal knowledge, and along with it the culture of the Kallawaya people will essentially vanish. (Anderson G et al., 2007). Knowledge of such languages as well as another widely-spoken language will

In what ways may the bilingual education system in indigenous Australian communities be improved?

allow for preservation and efficient communication of such culture and knowledge.

Furthermore, in multicultural countries such as Australia, bilingualism may help improve communication between various cultures (including Indigenous) throughout the country.

In addition to social benefits, bilingualism also has a number of neural advantages.

Although it has previously been thought that bilingualism may hamper cognitive and linguistic development (Meek L et al., 1936; Smith F, 1923), contemporary studies now show that this is not the case (Petito A et al., 2002), and that bilingualism may in fact bring numerous cognitive advantages. It has been demonstrated in various research papers that lifelong bilingual individuals have denser grey matter in the brain (hence more neural connections and possibly superior brain organisation) (Mechelli A et al., 2004), superior attention control and mathematical skills (Bialystok E et al., 1998; Clarkson P et al., 1992), and long-term cognitive benefits such as the delay of Alzheimer's disease (Bialystok E et al., 2007). Such significant cognitive advantages, coupled with the possibility of preserving endangered languages, provide much incentive to encourage early-acquired bilingualism, through bilingual education.

Although a second language may be acquired to some extent at any time from childhood to adulthood (Wolfgang K, 1986), it has been shown through numerous studies that early childhood is best for optimal language proficiency. One extreme theory of this is the critical period hypothesis, popularized by Lenneberg, who stated that “the incidence of ‘language learning blocks’ rapidly increases after puberty”, specifically age 13 (Lenneberg E et al., 1967). This hypothesis, although remaining one of the greatest controversies in bilingualism, has been disproved by many studies (DeKeyser R, 1999;

Bailystok E, 2008). A review of literature around the subject done by Hakuta in 2001 also stated that “evidence for a critical period is scanty” (Hakuta K, 2001), although there is some steady “monotonic decline” for second language acquisition with increasing age (Hakuta K, 2001). Although not as extreme as the critical age hypothesis, the steady decline in ability for second language acquisition nevertheless illustrates that complete bilingualism is optimally learnt at an early age. In the western world, young children spend the majority of their day in school (UNESCO, 2000), and hence it is vital to encourage bilingualism during school hours through bilingual education.

Bilingually-oriented education as a special, separate branch of education is highly beneficial. Brain scans and investigation into categorisation and structure of early linguistic development suggests that fundamentally, the learning of languages bilingually is similar in pattern to that of a monolingual (Pettito L et al., 2002). However, the demands of learning bilingually have been speculated to be greater, as children must learn “not only new and different vocabulary, but also different syntactic rules and linguistic constraints”, and thus most likely have greater cognitive strain during the early stages of bilingualism acquisition in order to produce grammatically correct sentences in each language (Diaz R, 1983). A phenomenon illustrating such cognitive strain is bilingual “code-switching”, where a young individual, despite having competent knowledge in both languages, will use the word or grammatical structure more familiar to him in lingual production (Myers G, 2008). It is due to such code-switching and cross-language usage in bilingual children that it is necessary to provide education programs which accommodate and correct such deviations.



---

In what ways may the bilingual education system in indigenous Australian communities be improved?

There have been various descriptors and typologies developed for bilingual education programs. Garcia's (1998) proposed classification system is among the most widely accepted. Education programs fall into one of six types: separatist with withdrawal second language classes, dual language, mainstream with supplementary second language classes, maintenance, immersion, and mainstream bilingual. By far the most successful mass programs fall into the maintenance or immersion class (Baker C et al., 1997; Dixon L, 2005; Spolsky B, 1973). Immersion programs involve the regular "immersion" of an individual into a second language environment (Garcia O, 1998). For example, a student living in an English-speaking country attends school where classes are conducted exclusively in Italian. Maintenance education programs are similar, and may be considered a "slow" form of immersion. An individual is initially instructed in their native language, with increasing instruction in the second tongue until only a minor part of tuition is in the first language (Garcia O, 1997). The Australian Aboriginal – English program was once a classic example of such a maintenance program.

The Northern Territory was launched in 1972 in five outback aboriginal schools. At the time, the program was part of the Whitlam government's initiative to bridge the inequality in lifestyles between the Aboriginal and 'white' populations of Australia. (Ricento T, 2000). The program was designed according to a maintenance language education model, with English being used for 10% of the child's schooling in year 1, increasing to 80% English in year 5 (Harris et al., 1997). Exclusively native speakers taught in their respective language and with their own cultural background (Purdie N et



al., 2008). In most of the first five participating schools, this combination earned more interest among the pupils, as well as among the community. Some schools combined several aspects of the general Australian curriculum with traditional Aboriginal culture; in one school for example, one teacher taught science and mathematics simultaneously with traditional Aboriginal hunting and gathering traditions (Northern Territory Department of Education, 1973). It appeared that the students were growing competent in both their native language and English, and that the program was aiding in the professional development of Aboriginal teachers. This professional development was further enhanced through specialised education programs through several educational institutions, notably Batchelor College in the Northern Territory (Harris S et al., 1997). By 1993, the program in the Northern Territory was being conducted in 17 different languages in over 20 different schools (Bubb P (ed.), 1993). However, when the 2008 National Assessment Program of Literacy and Numeracy (NAPLAN) report was published, it showed that scores from Aboriginal schools were significantly lower than those from mainly anglo-Australian, urban schools (Devlin B, 2009). A new policy was implemented by the then-education minister for the Northern territory, Marion Scrymgour to enhance English proficiency of Aboriginal schools. This policy insinuated “compulsory teaching in English for the first four hours of each day” (leaving an inadequate 90 minutes for native language teaching) (Going Back to Lajamanu, 2009) in Northern Territory Aboriginal schools. There have been several disputes over this drastic cut-back, and various speculations on the major flaws of the original program. However, in order to analyse adequately the major reasons behind the program’s eventual failure to

---

In what ways may the bilingual education system in indigenous Australian communities be improved?

“bridge the gap” between education levels of Indigenous and Anglo- Australians, it is highly beneficial to compare it to successful bilingual education systems.

The first mass and moderately successful program was developed during the colonisation era. In the 16th century, during the Spanish colonisation of South America, a sort of symbiosis of Castilian (Spanish) and native languages was established, in order to improve communication between the native peoples and the colonisers. Spanish and native-language bilingualism was learnt by the clergy in order to spread Catholicism, in order to better communicate with the locals, and to encourage knowledge of Spanish by the local populace (Baker C et al., 1997). Although both Charles III and Charles IV ordered all Spanish friars to instruct the local population of South America in Castilian whilst at the same time communicating in the native language, this plan was hard to implement due to lack of support on behalf of the colonisers, and resulted in forced assimilation of the indigenous peoples and decline of bilingualism (Laforge L et al., 1990). Although this program followed a usually successful immersion-type model, it was clearly a failure, most likely due to the lack of community support. In fact, it has been repetitively demonstrated that community support, especially parental support for bilingualism is necessary in order to maximise the effectiveness of a bilingual education system (Brisk M, 2006). An example where this was evidently a major factor in bilingual education success is the Maori-English program in New Zealand. The immersion-type program was initiated in 1982 by Indigenous parents, who were concerned for the loss of their language and traditional culture. The program has since its implementation expanded rapidly, and has been held responsible for over 22 000 medium-fluency

speakers in Maori under the age of 25 (May S et al., 2006). Both the example of the early Spanish and contemporary Maori programs illustrate the need for community support in bilingual education.

The Australian Aboriginal program, during its implementation between the 1970s and 2008, did not receive a high degree of community support, most original enthusiasm gone by the 1990s (Simpson J et al., 2008). As illustratively said by one Aboriginal community member: “When our children learn more, white people [will] go” (Penny H, 1975), reflecting the negative attitudes to the “white” teachers in the schools and essentially the program. In addition, parental support, which was highly prevalent in Maori bilingual programs (May S et al., 2005) and is considered a high portion of overall community support (Brisk M, 2006), was not evident in most Aboriginal bilingual school communities (Going Back to Lajamanu, 2009). It is highly likely that this was a major factor in the program’s eventual failure, and must be remedied in order to improve the program. There are several ways in which this may be achieved. The afore-mentioned comment of the Aboriginal community member, for example, illustrates that the community was not well-informed of the program and its possible social and cognitive benefit. Dissemination of such information may encourage participation of the community members in the program and elevate levels of community support. In addition, direct involvement of the community in the program through school boards, cultural activities, guest presenters, fetes and others, may improve the community’s regard of the program. However, in order for maximise the interest generated via such

---

In what ways may the bilingual education system in indigenous Australian communities be improved?

activities, it is necessary to first consider the socio-economic status of the community and of the languages.

Socio-economic factors play a major role in the success of a bilingual education program. Low socio-economic environments have been shown to be detrimental to education in general and in particular to bilingual programs, as less emphasis is usually placed on academic success (Brisk M, 2006); high socio-economic levels, on the other hand, generally lead to greater focus on education as well as better funding opportunities and more community support, positively influencing bilingualism. Singapore, for example, has one of the world's most successful bilingual education programs, as well as a high mean socioeconomic level (Singapore Government, 2010; United Nations Office on Drugs and Crime, 2010). The bilingual education program consists of instruction of students in English (not the student's native language), as well as classes in some form of Malay, Indian, or Chinese (Dixon L, 2005), the three major ethnic groups of the country. According to gathered data, there have so far been no issues with knowledge of the students' English or instructed 'mother tongue' in this immersion - type system, heavily community-supported and well-funded (Dixon L, 2005). On the other hand, Indian-Spanish bilingual programs in Mexico, where mean socio-economic levels are significantly lower (United Nations Office on Drugs and Crime, 2010; 2004) have not been successful overall (University of Michigan, 2010b). The program is under-funded, poorly organized and lacks specialist support (Paulston C, 1988) due to the low socioeconomic environment, despite following a usually successful immersion-type program. The impact of other socio-economic factors, tourism and economical system

change, is furthermore illustrated by bilingualism in Indian Guatemala. A study performed in the 1980s by Wilhite found that Spanish-Indian bilingualism increased with increasing contact with Spanish speakers due to tourism and economical change (Wilhite M, 1982). In fact, extrapolating from the study's findings, Wilhite states that "no matter how excellent an education system may be, it will be of benefit only if people are motivated to take advantage of it and continue to use what they have learnt" (Wilhite M, 1982). Such lack of immediate need and motivation for bilingualism, coupled with low mean socioeconomic levels would have been a major factor in the essential failure of the Aboriginal program.

The Indigenous bilingual program was conducted in communities with low mean socioeconomic levels and high levels of drug and alcohol use (Wilson M et al., 2010; Catto M et al., 2008). It was observed during the program's implementation that such factors contributed to the success of the program, through their impact on the students. Student absenteeism was one of the major issues throughout the program (Northern Territory Department of Education, 1973; 1974; *Going Back to Lajamanu*, 2009), and interfered with the curriculum, as the class could not progress smoothly. Furthermore, it was noted in the Lajamanu community that students were often tired due to "staying up late" and could not concentrate adequately in class; this was blamed on lack of discipline on behalf of their parents/guardians, who themselves were often away from home and did not leave anyone in charge of their children (*Going Back to Lajamanu*, 2009; Simpson J et al., 2009). Another social issue noted in the *Going Back to Lajamanu* documentary was that many of the children, who completed bilingual schooling, either were not able to or



---

In what ways may the bilingual education system in indigenous Australian communities be improved?

motivated to use their skills in the job market (Going Back to Lajamanu, 2009). Such socioeconomic factors are difficult to remedy due to their large scale; however, their effects may possibly be controlled. Student absenteeism, for example, could be controlled through more rigorous penalties if a student is absent for more than a certain part of the curriculum. Of course, continuous reduction of drug and alcohol abuse (and thus improve living quality for the children) in Indigenous communities through programs such as the Indigenous Alcohol and Other Drug (AOD) Workers' Well-being, Stress and Burnout Project (Australian Indigenous Health INFO Net, 2010) would enhance the overall conditions for success of bilingual programs. It is also possible that if, similarly to the case of Wilhite's two Guatemalan communities, the need for Indigenous-Australian bilingualism increased in these communities, there would be more motivation to acquire such skills (Wilhite M, 1982). This may, for example, be done through increased tourism to these communities. However, only subjective factors like community support and improvement of socioeconomic conditions will not completely remedy the program. There is need to be pragmatic and consider the funding of this sort of education system.

A program renowned for its success and simultaneously notorious for its high funding levels is the bilingual program in Canada. The St Lambert program began in the 1960s as a psychology experiment by Professors Tucker and Lambert in a small English-speaking part of Quebec. The program essentially entailed the French immersion education of primary school children for the majority of their first four years of education. The result after the first five years of the program showed that the children educated in this manner suffered no problems with general school performance or language (being able to speak

development and training continued to fall, by 80% between 1995 and 1997 alone, thus reducing the number of fully-qualified teachers and also reducing curriculum material synthesis (Harris S et al., 1997). Although attempts were made to solve the material synthesis issue through establishment of “literature centers”, there was not enough funding to keep them operational (Harris S et al., 1997). If more funding, federal, state, or even through charities, was devoted to the program, there could be more opportunity to improve the curriculum and allow for better training of the teachers.

There are certainly many reasons for implementation of a bilingual education program in Indigenous Australian communities, with several cognitive benefits for individuals and with socio-cultural benefits for the language communities. There have been several examples across the globe (New Zealand, Canada, and Singapore) where bilingual education has been successfully implemented, usually in an immersion or maintenance-type program. However, before bilingual education in Australia may have some success, drastic change must be undertaken. This paper has attempted to make some educated recommendations as to these changes, through comparison of the former Indigenous programs with successful and unsuccessful programs around the world. By this analysis, it is evident that in successful bilingual programs, an immersion-type system is used, with much community support, a fair socio-economic environment and high government or private funding. If these factors, which were all not present in the former Indigenous program, were remedied, it may be possible that the program will be a success and a great benefit to Indigenous communities.



---

In what ways may the bilingual education system in indigenous Australian communities be improved?

development and training continued to fall, by 80% between 1995 and 1997 alone, thus reducing the number of fully-qualified teachers and also reducing curriculum material synthesis (Harris S et al., 1997). Although attempts were made to solve the material synthesis issue through establishment of “literature centers”, there was not enough funding to keep them operational (Harris S et al., 1997). If more funding, federal, state, or even through charities, was devoted to the program, there could be more opportunity to improve the curriculum and allow for better training of the teachers.

There are certainly many reasons for implementation of a bilingual education program in Indigenous Australian communities, with several cognitive benefits for individuals and with socio-cultural benefits for the language communities. There have been several examples across the globe (New Zealand, Canada, and Singapore) where bilingual education has been successfully implemented, usually in an immersion or maintenance-type program. However, before bilingual education in Australia may have some success, drastic change must be undertaken. This paper has attempted to make some educated recommendations as to these changes, through comparison of the former Indigenous programs with successful and unsuccessful programs around the world. By this analysis, it is evident that in successful bilingual programs, an immersion-type system is used, with much community support, a fair socio-economic environment and high government or private funding. If these factors, which were all not present in the former Indigenous program, were remedied, it may be possible that the program will be a success and a great benefit to Indigenous communities.

**Reference List**

ANDERSON G et al., 2007, Kallawaya language Project: Living Tongues Institute, last accessed 02.09.2010, <http://www.livingtongues.org/kallawaya.html>

AUSTRALIAN INDIGENOUS HEALTH INFONET, 2010, Indigenous Alcohol and Other Drug (AOD) Workers' Well-being, Stress and Burnout Project, last accessed 12.09.2010, <http://www.healthinfonet.ecu.edu.au/health-resources/programs-projects?pid=195>

BAKER C et al., 1997, Encyclopaedia of Bilingualism and Bilingual Education, Multilingual Matters, Clevedon.

BHATIA T, 2008, The Handbook of Bilingualism, Wiley-Blackwell, Boston

BIALYSTOK E et al., 1998, "The Relationship Between Bilingualism and the Development of Cognitive Processes in Problem Solving", *Applied Psycholinguistics*, 19:69

BIALYSTOK E et al., 2007, "Bilingualism as a Protection against the Onset of Symptoms of Dementia", *Neuropsychologia*, 45:2

In what ways may the bilingual education system in indigenous Australian communities be improved?

BIALYSTOK E, 2008, "The Structure of Age: In Search of Barriers to Second Language Acquisition", *Second Language Research*, 13:2

BRISK M, 2006, *Bilingual Education: from Compensatory to Quality Schooling*, Lawrence Erlbaum Associates, New Jersey

BUBB P (ed.), 1993, *Northern Territory Aboriginal Languages and Bilingual Education Newsletter*, Northern Territory Department of Education, Darwin.

CATTO M et al., 2008, Review of illicit drug use among Indigenous peoples, last accessed 11.09.2010, <http://www.healthinfonet.ecu.edu.au/health-risks/illicit-drugs/reviews/our-review>

CLARKSON P et al., 1992, Bilingualism and Mathematics Learning, *Journal for Research in Mathematics Education*, 23:1

COUNCIL OF MINISTERS OF EDUCATION CANADA, 2010, *Education in Canada*, last accessed 05.09.2010, <http://www.cmec.ca/pages/canadawide.aspx#02>

DEKEYSER R, 1999, "The Robustness of the Critical Period Effects in Second Language Acquisition", *Studies in Second Language Acquisition*, 22:4

DEVLIN B, 2009, *Bilingual education in the Northern Territory and the continuing debate over its effectiveness and value*, transcript for presentation at AIATSIS Research Symposium, "Bilingual Education in the Northern Territory: Principles, policy and practice", Visions Theatre, National Museum of Australia, Canberra, June 26,

DIAZ R, 1983, "Thought and Two Languages: The Impact of Bilingualism on Cognitive Development", *Review of Research in Education*, 10:83

DIXON L, 2005, "The Bilingual Education Policy in Singapore: Implications for Second Language Acquisition", In Cohen et al., *ISB4: Proceedings of the 4th International Symposium on Bilingualism*, Cascadilla Press, Somerville.

ENDURING VOICES PROJECT, 2010, *Losing Our World's Languages*, last accessed 02.09.2010, <http://www.nationalgeographic.com/mission/enduringvoices/>

*GOING BACK TO LAJAMANU*, 2009, "Four Corners" television program, ABC Television, 14 September

GARCIA O., 1998, "Bilingual Education", In Columas F, "The Handbook of Sociolinguistics", Wiley-Blackwell, Oxford

In what ways may the bilingual education system in indigenous Australian communities be improved?

HAKUTA K, 2001, "A Critical Period for Second Language Acquisition?" In D. Bailey et al., *Critical Thinking about Critical Periods*, Paul Brookes Publishing, Baltimore

HARRIS S et al., 1997 "Bilingual Programs Involving Aboriginal Languages in Australia", In Cummins J et al., *Bilingual Education, Multilingual Matters*, Kluwer Academic Publishers, Dordrecht

LAFORGE L et al., 1990, *Diffusion des Langues et Changement Social*, Les Presses de l'Université de Laval, Québec.

LENNENBERG E et al., 1967, *Biological Foundations of Language*, Wiley and Sons, New York

MAKARENKO J, 2007, *Official Bilingualism in Canada: History and Debates*, last accessed 11.09.2010, <http://www.mapleleafweb.com/features/official-bilingualism-canada-history-and-debates>

MAY S et al., 2005, *Bilingual Education in Aotearoa/New Zealand: At the Crossroad*, In Cohen J et al., "ISB4: Proceedings of the 4th International Symposium on Bilingualism", Cascadilla, Somerville

MAY S et al., 2006, *Bilingual Education in Aotearoa/New Zealand*, new Zealand Ministry of Education: Research Division, retrieved 11.09.2010 from [http://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0008/6956/831\\_Bilingual.pdf](http://www.educationcounts.govt.nz/_data/assets/pdf_file/0008/6956/831_Bilingual.pdf)

MECHELLI A et al., 2004, "Neurolinguistics: Structural Plasticity in the Bilingual Brain", *Nature*, 431:757

MEEK L et al., 1936, *Mental Development from Two to Twelve Years*, Review of Educational Research, 6:1

MYERS G, 2008, "The Bilingual Brain: Cognitive Effects of Multilingualism", Boston University, retrieved from [http://www.lulu.com/items/volume\\_63/2491000/2491546/1/print/genevra\\_myers.pdf](http://www.lulu.com/items/volume_63/2491000/2491546/1/print/genevra_myers.pdf), 03.09.2010.

NORTHERN TERRITORY DEPARTMENT OF EDUCATION, 1973, *Progress Report on the Bilingual Education Program in the Northern Territory*, Northern Territory Department of Education, Darwin.

NORTHERN TERRITORY DEPARTMENT OF EDUCATION, 1974, *Second Progress Report on the Bilingual Education Program in the Northern Territory*, Northern Territory Department of Education, Darwin.

OZERK K, 1996, "Linguistic-Minority Students and Bilingual Mathematics Teaching", *Scandinavian Journal of Educational Research*, 40:4

In what ways may the bilingual education system in indigenous Australian communities be improved?

PAULSTON C, 1988, *International Handbook of Bilingualism and Bilingual Education*, Greenwood Press, Conneticut

PENNY H, 1975, *The Training of Pitjantjatjara Aborigines for Greater Teaching Responsibilities in South Australian Tribal Aboriginal schools: Report and Recommendations to the Education Department of South Australia*, South Australian Government, Adelaide.

PETTITO L et al., 2002, *Evaluating Attributions of Delay and Confusion in Young Bilinguals: Special Insights from Infants Acquiring a Signed or Spoken Language*, *Sign Language Studies*, 3:1

PURDIE N et al., 2008, *Indigenous Language Programmes in Australian School*, Australian Government Department of Education, Employment and Workplace Relations, Darwin

RICENTO T, 2000, *Ideology, Politics and Language Policies*, John Benjamins Publishing Company, Philadelphia.

SAFTY A, 1991, "French Immersion in Canada: Theory and Practice", *International Review of Education*, 37:4

SIMPSON J et al., 2008, "Gaps in Australia's indigenous language policy: dismantling bilingual education in the Northern Territory", In *Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), Research Discussion Papers Volume 23*, Aboriginal Studies Press, Canberra.

SINGAPORE GOVERNMENT, 2010, *Statistics*, last accessed 11.09.2010, <http://www.singstat.gov.sg/stats/keyind.html>

SMITH, F. 1923, "Bilingualism and Mental Development", *British Journal of Psychology*, 13

SPOLSKY B, 1973, *Review, Teachers of English to Speakers of Other Language Quarterly*, 7:3

UNESCO, 2000, *Statutory Number of Teaching Hours and Weeks per Year in Public Institutions by Level of Education (2000)*, last accessed 02.08.2010, [http://www.uis.unesco.org/ev.php?ID=5378\\_201&ID2=DO\\_TOPIC](http://www.uis.unesco.org/ev.php?ID=5378_201&ID2=DO_TOPIC)

UNITED NATIONS (Human Development Department), 2009, *Human Movement: Snapshots and Trends*, last accessed 14.08.2010, [http://hdr.undp.org/en/media/HDR\\_2009\\_EN\\_Table\\_A.pdf](http://hdr.undp.org/en/media/HDR_2009_EN_Table_A.pdf)



---

In what ways may the bilingual education system in indigenous Australian communities be improved?

UNITED NATIONS DEPARTMENT OF DRUGS AND CRIME, 2010, Consumption: Prevalence of Drug Abuse, last accessed 11.09.2010, [http://www.unodc.org/pdf/WDR\\_2006/wdr2006\\_chap6\\_consumption.pdf](http://www.unodc.org/pdf/WDR_2006/wdr2006_chap6_consumption.pdf)

UNITED NATIONS DEPARTMENT OF DRUGS AND CRIME, 2004, Intentional Homicide, last accessed 11.09.2010, <http://www.unodc.org/documents/data-and-analysis/IHS-rates-05012009.pdf>

UNIVERSITY OF MICHIGAN, 2010 (a), Overview and History of the Canadian Program, last accessed 03.09.2010, [http://sitemaker.umich.edu/356.hess/overview\\_of\\_the\\_canadian\\_program](http://sitemaker.umich.edu/356.hess/overview_of_the_canadian_program)

UNIVERSITY OF MICHIGAN, 2010 (b), Bilingual Education in Mexico, last accessed 03.09.2010, [http://sitemaker.umich.edu/356.morante/bilingual\\_education\\_in\\_mexico](http://sitemaker.umich.edu/356.morante/bilingual_education_in_mexico)

WILHITE M, 1982, "Socioeconomic Factors in Bilingualism in Two Guatemalan Indian Communities", *Anthropology and Education Quarterly*, 13:1

WILSON M, 2010, The harmful use of alcohol amongst Indigenous Australians, last accessed 11.09.2010, [http://www.healthinonet.ecu.edu.au/alcoholuse\\_review](http://www.healthinonet.ecu.edu.au/alcoholuse_review)

WOLFGANG K, 1986, *Second Language Acquisition*, Cambridge University Press, Cambridge.