

## **Benefits of Indigenous language learning**

***Cognitive benefits of second language learning:*** Research shows that second language instruction improves overall school performance, cognitive development, problem solving, and creativity.

- Bilingual children have increased metalinguistic awareness, or knowledge ‘about’ languages. These metalinguistic skills are an important piece of intellectual development, reading skills development, and overall academic success (Hakuta 1986). Metalinguistic abilities are seen in greater phonemic awareness in bilingual children (for example, they can answer questions like “Do cat and car have the same sound at the beginning?”), and in bilingual children’s ability to break words into syllables more successfully than monolingual children (Lindfors 1991).
- A study of a second language improves knowledge of the first language as well as math and logic skills, as shown by decades of studies. Children who study a second language score higher on verbal standardized tests conducted in English. (Adelman 1981, Alter 1970, Hofstadter & Smith 1961, Olsen & Brown 1992, Parker 1956, Sachs 1982.)
- Second language learning increases mental flexibility for children. They are more creative and better at planning and solving complex problems (Paradis, Genesee & Crago 2011). Bilinguals, with two or more words for a single object, concept or idea, think more abstractly about words and language (Ianco-Worrall 1972). Bilingualism seems to strengthen the brain’s executive control system, and in doing so, protects it from some of the effects of aging (Bialystok et al. 2007).

### ***Benefits of language and culture-rich curriculum for Native children:***

**Academic success:** Based on years of research, the inclusion of Native language and culture in school curriculum is an important factor in Native American children’s academic achievement, retention rates, and school attendance (Demmert 2000; Lipka & McCarty 1994; McCarty & Lee 2014; Mmari, Blum & Teufel-Shone 2010; Skinner 1999; Yazzie 1999). Gay (2013) notes a culturally responsive approach to teaching connects students’ experiences in and out of the school, supports educational equity and excellence, and empowers students by giving them the skills to effectively negotiate and impact the world around them. This type of teaching approach and the inclusion of indigenous languages is not detrimental to academic achievement; rather, it promotes academic achievement and cultural knowledge, preparing youth to be leaders of their communities (McCarty & Lee 2014).

Native language school studies show that immersion/bilingual students have greater success in school as shown by improved local and national achievement test scores (Pease-Pretty on Top ‘Immersion’, McCarty 1996). Bacon, Kidd & Seaberg (1982) found that Cherokee children who had received bilingual education in Cherokee and English in grades 1-5 scored higher on math and reading assessments (given in in grade 8) than children educated in English only. Navaho students receiving bilingual education scored higher on the SAT and MAT than students with English language only instruction (Rosier & Holm 1980).

Hawaiian and Maori immersion schools are the longest running immersion programs and have high levels of student success and retention rates. In 22 Hawaiian public immersion schools, the 1,700 enrolled students outperform the average for children in non-immersion Hawai’i public schools, with 100% of students graduating from high school and 80% attending college (Aha Punana Leo). The linguistic, cultural and academic success of students enrolled in schools taught through Hawaiian has led to continued growth in their enrollment rates (Wilson 2014). Only 5-15% of Maori students used to finish grade 13 (high school equivalent). Now, with immersion instruction, Maori language immersion school students’ rates are 75% (Pease-Pretty On Top 2002).

**Health and well-being:** Current studies indicate that Native language is integral to the sense of well-being of Native children, and in turn, to their academic performance, self-esteem, and ability to succeed in a complex world. When a school values and utilizes students’ Native language in the curriculum, there is increased student self-esteem, less anxiety, and greater self-efficacy (Hakuta 2001). Inuit children in Inuktitut classes in Canada start school with positive self-esteem that increases during their first years of school (Wright, Taylor, Ruggeiro, MacArthur, & Elijassiapik, 1996). Connecting Indian youth with their language and culture

increases their resiliency to addiction, prevents risky behaviors, and promotes positive health and well-being (Goodkind et al. 2011, Mmari, Blum & Teufel-Shone 2010).

### ***Are there negative consequences when a young child is exposed to more than one language?***

Over half of the world's population speaks more than one language (Tucker, 1998). Elder Native Americans may speak more than one language, and often more than two. People worry that children will be overloaded with the extra information that comes with two languages and cultures. At birth, babies can distinguish between the sounds of all the world's languages. However, by age 1, they focus only on sound differences that are important to the language(s) of their environment (Kuhl 2004). Bilingual children develop grammatical knowledge of both languages following the same patterns and timelines as children learning one language (Genesee 2009). Bilingualism does not cause language delay (Paradis, Genesee & Crago 2011).

Children may switch between their two languages at unusual times during some phases of their language development, and at times early in their school years may show a slight negative affect on their first language. but end up using each language in the appropriate setting. There is no modern evidence that being exposed to more than one language can harm a child. Children as young as two are able to switch between languages appropriately (Lanza 1992).

### ***What if a child has a learning disability?***

The available research shows that growing up with two languages will not harm children with learning disabilities. A child with a language difficulty or learning disability can learn a second language, and becoming bilingual is not a hardship on a child with disabilities, including language-specific disabilities. Children in bilingual or immersion settings do not show extra delay or difficulties when compared to monolingual children with similar language difficulties. However, a child with a learning disability will still have that disability when learning more than one language; a bilingual child with specific language impairment (SLI) will still be slow acquiring both languages, but no more so than if she were monolingual.

Immersion is suitable for children having academic difficulties and/or learning disabilities (Edwards 1989). Genesee (1991) demonstrates that students whose intellectual abilities are below average have the same test results in immersion as students of comparable ability in the regular school system, and concludes that French immersion had no negative effects on L1 or mathematics for these students. Students with learning disabilities who are in an immersion program also show no negative effects (Bruck 1982).

The little research that has been done on bilingual children with SLI shows the following results (Paradis, Crago, & Genesee, 2003; Paradis, Crago, Genesee, & Rice, 2003):

- 1) Children with SLI can become bilingual.
- 2) Children with SLI experience difficulties in both of their languages, difficulties that are typical for children with SLI in each language.
- 3) Bilingual children with SLI learn their languages as fast or possibly slightly faster than monolingual children with SLI.

### ***See also:***

<http://www.cal.org/resources/digest/RaiseBilingChild.html>

<http://www.actfl.org/advocacy/discover-languages/advocacy/discover-languages/advocacy/discover-languages/resources-5>

<http://www.hanen.org/Helpful-Info/Articles/Bilingualism-in-Young-Children--Separating-Fact-fr.aspx>

<http://indiancountrytodaymedianetwork.com/2014/09/01/teaching-whole-child-language-immersion-and-student-achievement-156685>

<http://asiasociety.org/education/chinese-language-initiatives/what-research-tells-us-about-immersion>

<http://medicalxpress.com/news/2012-08-languages-benefits-low-income-children.html>

[http://news.bbc.co.uk/2/hi/uk\\_news/wales/north\\_west/8452843.stm](http://news.bbc.co.uk/2/hi/uk_news/wales/north_west/8452843.stm)

[http://www.nytimes.com/2011/05/31/science/31conversation.html?\\_r=0](http://www.nytimes.com/2011/05/31/science/31conversation.html?_r=0)

**prepared by:** Joana Jansen, Northwest Indian Language Institute, University of Oregon; Lindsay Marean, Owens Valley Career Development Center; and Janne Underriner, Northwest Indian Language Institute, University of Oregon.

## **References**

- Adelman, C. (1981). "Saving the Baby: Language Study and the New Reforms in General Education." *ADFL Bulletin* 13.2, pp. 3–19.
- Aha Punana Leo. "Our Language: e ola ka olelo Hawai'i - the Hawai'ian language shall live." [www.ahapunanaleo.org/HTML/OL.htm](http://www.ahapunanaleo.org/HTML/OL.htm).
- Alter, M. (1970). "The Modern Case for German." *American Association of Teachers of German*. Philadelphia: ERIC ED 058 809.
- Bacon, H., Kidd, G., and Seaborg, J. (1982). "The effectiveness of bilingual instruction with Cherokee Indian students." *Journal of American Indian Education* 21, pp.34-43.
- Bialystok, E. F. Craik & M. Freedman. 2007. "Bilingualism as a protection against the onset of symptoms of dementia." *Neuropsychologia* 45, pp. 459-464.
- Bruck, M. (1982). "Language Disabled Children: Performance in an Additive Bilingual Education Program." *Applied Psycholinguistics* 6, pp. 39–61.
- Demmert, W. G., Jr. (2001). *Improving academic performance among Native American students: A review of the research literature*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Edwards, H. (1989). "Review of the Literature." In N. Halsall (ed.), *Immersion/Regular Program Study*. Nepead, ON: Carleton Board of Education.
- Gay, Geneva. (2013). "Teaching To and Through Cultural Diversity." *Curriculum Inquiry* 43, pp.48-70.
- Genesee, F. (1991). "L'immersion et l'apprenant défavorisé." *Études de linguistique appliquée* 82, avril–juin, pp. 77–93.
- Genesee, F. (2009). "Early childhood bilingualism: Perils and possibilities." *Journal of Applied Research on Learning*, 2 (Special Issue), pp. 1-21.
- Genesee, F., J. Paradis and M. Crago. (2004). *Dual Language Development and Language Disorders: A Handbook on Bilingualism and Second Language Acquisition*. Baltimore, MD: Brookes.
- Goodkind, J., K. Ross-Toledo, K., S. John, J.L. Hall, L. Ross, L. Freeland, E. Coletta, & T. Becenti-Fundark. (2011). "Rebuilding trust: A Community, multiagency, state and university partnership to improve behavioral health care for American Indian youth, their families and communities." *Journal of Community Psychology* 39, pp. 452-477.
- Mmari, Kristin N., Blum, Robert Wm., and Teufel-Shone, Nicolette. "What increases risk and protection for delinquent behaviors among American Indian Youth?" *Youth and Society* 41, pp. 382-413.
- Hakuta, K. (2001). *Testimony to the United States Commission on Civil Rights*. "The Education of Language Minority Students." April 13, 2001.
- Hakuta, K. (1986). *Cognitive development of bilingual children*. UCLA: Center for Language Education and Research.
- Hofstadter, R., and Wilson S., eds. (1961). "F. H. Hedge on University Reforms, 1866." *American Higher Education: A Documentary History*. Vol. 2, pp. 561-7. Chicago: U of Chicago Press.
- Ianco-Worrall, A.D. (1972). "The effects of bilingualism on the individual: Cognitive and socio-cultural consequences." In P. Hornby (Ed.), *Bilingualism: Psychological, social, and educational implications* (pp. 15-27). New York: Academic Press.
- Kuhl, P. K. (2004). "Early language acquisition: Cracking the speech code." *Nature Reviews Neuroscience* 5, pp. 831-843.
- Lanza, E. (1992). "Can bilingual two-year-olds code-switch?" *Journal of Child Language* 19, pp. 633–658.
- Lindfors, J.W. (1991). *Children's Language and Learning* (2<sup>nd</sup>. ed) Boston: Allyn and Bacon.
- Lipka, J., & McCarty, T. L. (1994). "Changing the culture of schooling: Navajo and Yup'ik cases." *Anthropology & Education Quarterly* 25, pp. 266-84.

- McCarty, T. L. & Dick, G. S. (1996). "Mother Tongue Literacy and Language Renewal: The Case of the Navajo." *Proceedings of the 1996 World Conference on Literacy*. University of Arizona: Tucson, AZ.
- McCarty, T. L. & Lee, T.S. (2014). "Critical Culturally Sustaining/Revitalizing Pedagogy and Indigenous Education Sovereignty." *Harvard Educational Review* 84, pp. 101-124.
- Mmari, K., Blum, R, and Teufel-Shone, N. (2010). "What increases risk and protection for delinquent behaviors among American Indian Youth?" *Youth and Society* 41, pp. 382-413.
- Olsen, S., & Brown, L. (1992). "The Relation between High School Study of Foreign Language and ACT English and Mathematics Performance." *ADFL Bulletin* 23.3, pp. 47-50.
- Paradis, J., Crago, M., & Genesee, F. (2003). Object clitics as a clinical marker of SLI in French: Evidence from French-English bilingual children. In B. Beachley et al. (Eds.), *BUCLD 27 Proceedings* (pp. 638-649). Somerville, MA: Cascadilla Press.
- Paradis, J., Crago, M., Genesee, F., & Rice, M. (2003). "Bilingual children with specific language impairment: How do they compare with their monolingual peers?" *Journal of Speech, Language, and Hearing Research*, 46, pp. 1-15.
- Paradis, J., Genesee, F., & Crago, M. (2011). *Dual Language Development and Disorders: A Handbook on bilingualism & second language learning*. Baltimore, MD: Paul H. Brookes Publishing.
- Parker, W. (1956). "Values of Foreign Language Study." *PMLA* 71, p. xiv.
- Pease-Pretty On Top, J. *Native Language Immersion*. American Indian College Fund and W.K. Kellogg Foundation.
- Pease-Pretty On Top, J. (2002). "Bringing Thunder." *Tribal College Journal of American Indian Higher Education* 14, p. 13.
- Rosier, P., & Holm, W. (1980). "The Rock Point experience: A Longitudinal study of a Navajo school program (Saad Naaki Bee Na'nitin)." *Bilingual Education Series 8, Papers in Applied Linguistics*. Washington DC: Center for Applied Linguistics.
- Sachs, M. (1982). "Literacy, Learning, and Foreign Language Study." *ADFL Bulletin* 13.3, pp. 13-15.
- Skinner, L. (1999). "Teaching through traditions: Incorporating languages and culture into curricula." In K. Swisher & J. Tippeconnic (Eds.), *Next steps: Research and practice to advance Indian education* (pp. 83-106). Charleston, WV: ERIC/CRESS. (ED 427 906).
- Tucker, G. R. (1998). A global perspective on multilingualism and multilingual education. In J. Cenoz and F. Genesee (Eds.), *Beyond Bilingualism: Multilingualism and multilingual education* (p. 3-15). Clevedon, England: Multilingual Matters.
- Wilson, W. H. (2014). "Hawaiian: A Native American Language Official for a State." In T. Wiley, J. K. Peyton, D. Christian, S.C.K. Moore, & N. Liu (Eds.), *Handbook of Heritage, Community, and Native American Languages in the United States: Research, Policy and Educational Practice*. Routledge and the Center for Applied Linguistics. (pp. 219-228).
- Wright, T., Rugeiro, MacArthur, & Elijassiapik (1996). *The Jaanimmarik School Language Testing Project*. Montreal, Quebec: Kativik School Board.
- Yazzie, T. (1999). "Culturally appropriate curriculum: A research-based rationale." In K. Swisher & J. Tippeconnic (Eds.), *Next steps: Research and practice to advance Indian education* (pp. 83-106). Charleston, WV: ERIC/CRESS. (ED 427 906).