

RESEARCH NOTE

Indigenous studies and intercultural education: the impact of a place-based primary-school program

Phyllis Bo-yuen Ngai^{a*} and Peter H. Koehn^b

^a*Department of Communication Studies, University of Montana, Missoula, USA;* ^b*Department of Political Science, University of Montana, Missoula, USA*

The article presents a student-impact assessment of a model two-year place-based intercultural approach to indigenous education. Students at Lewis & Clark Primary School in Missoula, Montana, connected face-to-face with tribal educators and members residing in the nearby American Indian reservation. The program's learning outcomes included impressive gains in knowledge of Montana tribes, fewer stereotypical images, enhanced consciousness about the histories and cultures of the place in which students' reside, heightened appreciation for and connectedness with Native Americans, and increased cultural awareness. The power of the place-based intercultural-education approach is that K-5 students can acquire cultural knowledge, break stereotypes, and develop new appreciation for, and interest in, diverse peoples and issues by directly experiencing the local context in which diversity resides.

Keywords: indigenous education; intercultural education; place-based education; multicultural education; global education; American Indian education

Introduction

In Montana, all public school students are expected to learn about the cultures and histories of local American Indian tribes. In the 1999 *Indian Education for All Act*, the state pledged 'to recognize the distinct and unique cultural heritage of the American Indians and to be committed in its educational goals to the preservation of their cultural heritage' (Montana Legislative Services 1999). Enacting a state legislative requirement that public schools implement programs that fulfill the inclusive Indian-education intent found in the 1972 Montana Constitution is groundbreaking in US educational history.¹

In 2005, the Montana Legislature appropriated more than \$10 million for Indian Education for All (IEFA). Local public-school districts received a total of about \$7 million for IEFA implementation and the state Office of Public Instruction (OPI) received about \$3 million as start-up funding, part of which it used as grant money for selected schools to develop materials and teaching models (Juneau and Broaddus 2006, 196). The limited and variable size of local IEFA funding and light state oversight allowed for innovative, vastly different, and uneven educational approaches across and within school districts and schools. In this initial and ground-breaking phase of implementing IEFA in Montana, primary, middle, and secondary schools carried out the mandate with varying degrees of commitment and seriousness.

*Corresponding author. Email: phyllis.ngai@mso.umt.edu

This research note examines a student-focused assessment of a model primary-school Indian education program. Working in tandem, teachers and a principal at Lewis & Clark Elementary School (L&C) in western Montana, a University of Montana-Missoula faculty member (Ngai), and Indian partners on the Flathead Reservation designed a comprehensive, innovative, and unique program aimed at integrating Native perspectives throughout the mainstream K-5 curriculum. For the 2005/06 school year, L&C received competitive grants to carry out this program from the Montana Committee for the Humanities, the American Association of University Women (Community Action program), and OPI (IEFA award). Following two years of activity, L&C's approach received state-wide and national recognition in the form of (1) selection as the program featured in a special issue of *Phi Delta Kappa* on IEFA, (2) invitations extended to program planners and participants to deliver keynote talks at various educator conferences around the state, (3) publication by OPI of the program's *A Process Guide for Realizing Indian Education for All* for principals and teacher leaders, and distribution of 2000 copies to each school district in Montana, and (4) receipt by L&C of the 2008 Civic Star award from the American Association of School Administrators.

Place-based education focuses on developing skills and competences in various disciplines (e.g., science, art, math, or intercultural studies) through contextualized and experiential learning in and about the place where students reside. The L&C program is built on the vision that *IEFA* can be a valuable form of place-based education (see Gruenewald 2008) and, simultaneously, enhance multicultural and global education.

In our interdependent world, it is crucial that students are able to connect the local and the global.² Designers of L&C's IEFA program explicitly encouraged teachers to approach Indian education within the context of global learning (also see Sleeter 2003, 9). As Merryfield (1996, 4) points out, 'interconnectedness and interdependence are concepts central to both multicultural and global education.' However, 'the domestic dimensions of cross-cultural living' typically fall 'outside the realm of global education' (1996, 14). Multicultural education further tends to focus on issues, such as inclusiveness and equity, while we view intercultural education as a dynamic concept that incorporates interfaces involving two or more cultures. The L&C initiative, therefore, involved multicultural education (features marginalized histories/cultures and integrates domestic diversity) and intercultural education (cross-cultural relationship building as a core process component) embedded in a global context.

In the L&C program, most participating teachers included selected tribal perspective(s), along with additional cultural perspective(s), when studying various topics, issues, concepts, and events throughout the school year. Their approach aimed to deepen students' learning of required primary-education subjects while enabling them to appreciate the wisdom in different worldviews, alternative solutions to shared problems, the power of synergy, and unity within diversity. Such learning transformations lay the foundation for further education that equips students to make ethical decisions on important local, global, and glocal issues.

L&C developed a partnership with the nearest tribes, the Salish and the Pend d'Oreille. By learning about local Indian tribes and the places where they resided for thousands of years, students experienced a different worldview. In a particularly unique aspect of the program, L&C students learned from Salish and Pend d'Oreille partners (knowledgeable tribal members and respected elders) who came to their K-5 classrooms regularly to share stories based on an indigenous worldview, to teach about what they learned from their ancestors, and to speak with teachers and students

in their heritage language. At the same time, each L&C teacher had the opportunity to work with an Indian educator in developing teaching units that aimed to integrate the local tribal perspective into mainstream subjects. Inviting Indian partners into the public school to teach about heritages that have long been marginalized in US society constituted a path-breaking instructional effort. In contrast, the standard 'American public school educational paradigm relies heavily on the assimilation of its students into the dominant culture' (Sanchez 2003, 42).

Did the L&C program have any effect? Does its unique place-based intercultural approach offer a promising way to advance indigenous and multicultural education? Although the program's design received numerous accolades and is widely viewed as a model in Montana, what matters is student learning. Did the 'model' program have any impact on student knowledge and attitudes? In this research note, we present the first assessment of student learning outcomes and, then, reflect on the implications of findings for Montana's historic IEFA initiative and for efforts to link intercultural, multicultural, and global education.

Research methods and objectives

Lewis & Clark Elementary School in Missoula, Montana, is located near the traditional land of the Salish and Pend d'Oreille tribes. It is about 40 miles away from the current Flathead Indian Reservation in western Montana. The majority of L&C students are White, although the number of Indian students has gradually increased over the years. To fulfill the goals of the place-based education program, over 20 teachers integrated perspectives of the Salish and Pend d'Oreille into all subject areas.

To assess the program's impact on student learning and attitudes over the two-year grant period, one of the authors (Ngai), working in collaboration with teacher leaders, developed and administered a simple written survey. The survey instrument invited students to share their knowledge of local tribes, their understanding of American Indian history and culture in general, their attitudes toward American Indians and American Indian education, and their general interest in different cultures, languages, and people. The knowledge questions are aligned with the 'essential understandings' about American Indians identified by Montana tribal representatives.

The analysis presented here links four separate student surveys. At the start of the program (fall 2005), nearly all primary students enrolled at L&C (about 400 total) answered the survey, in some cases with assistance from a teacher or parent. Similar numbers of L&C students completed essentially the same survey for a second time at the end of the 2005/06 school year and for a third time at the end of 2006/07 school year.³ Although this method allows for school-wide longitudinal analysis, the program director did not identify and track specific students in the interests of respecting respondent anonymity. In May 2007, nearly 100 students enrolled in classes representing Grades 1 through 5 in a neighboring comparison school (CS) with similar student socio-economic demographics completed the survey. The CS had not received any grant funding for implementing new IEFA approaches and did not introduce school-wide curriculum changes or bring in tribal learning partners or mentors. However, teachers from the CS attended a full-day district-wide professional-development workshop on IEFA before the 2006/07 school year started. L&C teachers presented most of the sessions they attended at this workshop.

Here, we are interested in reporting and analyzing survey results that address the following questions:

- What changes, if any, occurred in learning outcomes (knowledge and attitudes) over the program period among L&C students?
- Do the knowledge and attitudinal outcomes for L&C students at the end of the program (2007) differ from those of students at the CS in 2007?

In addressing these questions, we refer to student responses to closed-ended items and to open-ended expressions that the survey invited students to offer in writing and/or via drawings.

Impact of the intervention

Cognitive domain

The survey results indicate that L&C students' knowledge about local tribes and their attitudes toward American Indians improved in important ways over the course of the two-year program. In terms of knowledge about local tribes, Table 1 data show dramatic increases (ranging between 27% and 58%) in the number of students who correctly identified almost all Montana and non-Montana tribes. The largest increase in recognition occurs for the Pend d'Oreille.

Two additional L&C findings of importance emerge from Table 1 results. First, the largest percentage improvement in correctly identifying the location of six of the tribes occurred during the first program year; the largest improvement in recognition of an additional six tribes occurred in the second year. In 11 of the 12 cases, moreover, the change is consistently in the direction of increased recognition. In the one exception (Salish), overall recognition only diminished by 4% in the second year and remained far higher than the pre-program level (90% versus 63%). In short, L&C teachers were able to sustain increases in students' ability to identify Montana and non-Montana tribes.

Next, by comparing the L&C 2005 and 2007 results with the CS in 2007, we observe that students at the CS in June 2007 lagged behind where the L&C students

Table 1. Percentage of students (third-grade and above only) who correctly identified Montana and non-Montana tribes.

Montana (*) and non-Montana tribes	2005 (%)	2006 (%)	2007 (%)	% increase in correct responses, 2005–2007	2007 comparison school (%)
Salish*	63	94	90	↑ 27	48
Pend d'Oreille*	5	45	63	↑ 58	7
Kootenai*	45	71	81	↑ 36	63
Chippewa*	16	22	62	↑ 46	37
Cree*	28	28	60	↑ 32	32
Gros Ventres*	10	20	47	↑ 37	2
Assiniboine*	12	23	59	↑ 47	23
Sioux*	37	63	70	↑ 33	57
Northern Cheyenne*	40	49	69	↑ 29	53
Crow*	76	89	89	↑ 13	63
Blackfeet*	92	96	95	↑ 3	93
Cherokee	20	35	55	↑ 35	22
Navajo	37	56	65	↑ 28	32

stood in October 2005 in recognizing four Montana and non-Montana tribes; in three other cases (Kootenai, Chippewa, and Sioux), the CS students proved substantially more likely (20% or greater) to make a correct starting identification. In terms of program impact, moreover, the findings show that, by 2007, L&C students were more likely than CS students were to make a correct tribal-location identification in all cases and substantially more likely with respect to 10 of 12 tribes.⁴

The survey also asked ‘what is the nearest reservation to Missoula?’ and ‘which tribes live there?’ The percentage of L&C students who correctly answered the first question rose from 12% in 2005 to 55% in 2006 and fell back to 42% in 2007. Only 13% of the CS students knew the name of the Flathead Reservation in 2007 – about where L&C students started out in 2005. With regard to naming the three tribes that live on the Flathead Reservation, 90% of the L&C students either answered ‘don’t know’ or failed to list even one of the three tribes in 2005; the combined ‘don’t know/none right’ figure fell to 47% in 2006. In contrast, none of the CS students could correctly identify even one of the three tribes in 2007.

L&C students made impressive gains in awareness of who their indigenous Montana neighbors are and where they live from 2005 to 2006. L&C teachers sustained these gains through the second year of the program, although there were slight declines in some areas. In terms of place-based knowledge, L&C students as a whole were far ahead of students in the same grades at the neighboring ‘non-program’ school at the end of the 2006/07 school year.

Attitude and affective domain

In assessing program impacts in the attitude and affective domain, we draw upon both item-response data and (at L&C only) students’ open-ended words and pictures. From Table 2, we observe that the vast majority (85%) of L&C students were receptive to learning more about American Indians from the start of the program. Interest in learning more decreased slightly among the L&C student body by the end of the two-year program to the same level encountered at the CS (78%). This could be because the number of visits by partners from the Flathead Reservation decreased and, hence, relationships weakened during the second year.

However, we found striking differences in the reasons why students wanted to learn more about Montana’s Native Americans. By 2007, nearly two-thirds (63%) of the L&C students indicated that having American Indian friends influenced their interest

Table 2. Impact on attitudes toward American Indian studies.

Item	2005 (%)	2006 (%)	2007 (%)	2007 comparison school (%)
Yes, I want to learn more about American Indians.	85	80	78	78
I want to learn more [about the American Indians in Montana] because I have American Indian friends.	50	54	63	37
Now I like to check out books about American Indians from the library.	N/A	37	43	25
Now I like my teacher to teach me about American Indians.	N/A	62	60	51

Note: N/A, question not asked in this survey.

in learning more; in comparison, only a little over one-third (37%) of the CS students selected 'having American Indian friends' in this connection. This finding suggests that it is likely that L&C students increased their interest in learning about Montana Indians due to the program's intercultural emphasis on person-to-person connections, including visits to their school by tribal educators, elders, and students from the Flathead Reservation and class trips to that reservation. The CS did not have funding to bring in tribal educators to speak with students or for class trips to the reservation.

Progression in L&C student attitudes also is reflected in the way they used their own words and sketches. At the beginning of the program, when asked to show what they knew about American Indians, students mostly responded with common stereotypes about American Indians (e.g., teepees, bows and arrows, braids, drums, and buffalo). By the end of the 2005/06 school year, students' words and pictures conveyed a deeper understanding of the traditional lifeway of the nearby tribes and of American Indian tribes in general and greater awareness of and appreciation for their different worldviews and value systems. However, many responses still focused on tools that Indians used traditionally.

By the end of 2006/07 school year, students offered many responses that went beyond objects. The free-expression data collected at the end of the second year frequently involved people; namely, how similar and different American Indians look compared to European Americans and what kind of people American Indians are (e.g., 'they are the same as you, but in different ways;' 'they are very kind and giving, but in different ways'). Many of the words chosen demonstrated sharpened awareness of diversity (both among tribes and between Indian and non-Indian cultures) and, at the same time, a sense of connectedness (e.g., 'we may look and speak differently, but we are both people. So that doesn't mean we can't be friends'). Through the program, Salish visitors frequently exposed L&C students to the Salish language. This had an impact as many L&C study participants tried to use Salish words in their open-ended responses. Statements about relationships also emerged in 2007 (e.g., 'they can be nice and are good friends'). Compared to the year before, more statements encompassed sympathy toward Indian people who experienced various forms of White invasion (e.g., 'I know American Indians were the first people in Montana. I know a lot of Indians got killed from wars. Indians got pushed away to smaller land'). There are more statements of appreciation (e.g., 'They are cool. They can really do some cool stuff. I love American Indians and I love learning about them') and more students showed understanding that American Indians are not only part of the past and that their cultures, traditions, and languages have evolved over time (e.g., 'Indians are not as traditional as they used to be').

Relative to CS students, roughly twice the percentage of students at L&C would like to have American Indian friends, to have American Indian teachers, and to help American Indians (Table 3). The vast differences in these attitudinal findings, which are particularly important since they relate closely to prospective behavioral changes, can be explained, in part, by lack of an interpersonal experience with Indian people and educators on the part of CS students.

Global education

Can intercultural and multicultural education at the primary-school level promote awareness and understanding of interconnections among peoples, issues, and aspirations (see Pugh and Garcia 1996, 122; Merryfield 2001, 263)? Table 4 data indicate

Table 3. Impact on attitudes toward American Indian people.

Item	2005	2006 (%)	2007 (%)	2007 comparison school (%)
Now I like to have American Indian friends.	N/A	54	62	32
Now I like to help American Indians.	N/A	60	59	29
Now I like to have American Indian teachers.	N/A	53	46	21

Note: N/A, question not asked in this survey.

Table 4. Impact on intercultural awareness and interest.

Item	2005	2006	2007 (%)	2007 comparison school (%)
I think people from different communities have different points of view.	N/A	N/A	71	63
My culture is the same as some kids' and different from some kids'.	N/A	N/A	64	13
Now I like to know about different cultures.	N/A	78%	77	77
Yes, I feel comfortable being around people who speak another language.	N/A	N/A	70	74
Now I want to learn a new language.	N/A	70%	67	59

Note: N/A, question not asked in this survey.

that the L&C program had greater influence on students' cultural awareness than on their interest in further intercultural learning. Particularly impressive is the wide difference between the program and non-program schools found in responses to the 'my culture is the same as some kids' and different from some kids'' item (64% agreement at L&C versus 13% at the CS). This finding suggests that by offering indigenous studies that are contextualized and humanized, teachers can increase understanding of diversity that extends beyond the focal place and nearby ethnic groups.

Conclusions

The learning outcomes discussed in this article demonstrate impressive gains in L&C students' knowledge of Montana tribes and their sense of place. On the whole, we find that the model L&C intervention has been effective in terms of cognitive learning. Through a curriculum transformed by integrating local tribal perspectives, participating students demonstrated enhanced consciousness about the histories and cultures of the place in which they reside.

The survey data also suggest that the program's impact was considerable in some, but not all, attitudinal domains. Relative to CS students, roughly twice the percentage of students at L&C would like to have American Indian friends, to have American Indian teachers, and to help American Indians. From students' expressive contributions, we observed widespread decline of stereotypical images and heightened appreciation for and sense of connectedness with their Native American neighbors (e.g., 'We may look and speak differently, but we are both people, so that doesn't mean we can't be

friends' and 'Indian people have different cultures and are not weird'). The positive interpersonal experiences with Indian friends and educators introduced by the intercultural L&C program likely influenced these attitudinal changes. Bringing cultural experts into L&C classrooms school-wide as partner educators also helped fill gaps in teacher knowledge and confidence (also see Wells 2008, 147).

The L&C program's approach emphasized the interpersonal and personal (self-reflective) dimensions of deep learning about one's place. When viewed alongside the perspectives of students at the CS who lacked the same intercultural experiences, L&C students expressed substantially more positive attitudes toward American Indian people. Person-to-person and face-to-face connection with neighbors of a different ethnic group enabled L&C teachers and student learners to connect with and find ways to build constructive relationships involving people whose cultural and socio-economic backgrounds are different from their own. These findings suggest that the place-based approach is helpful in paving the way for social inclusion and social justice.

The power of the place-based intercultural approach is that K-5 students can acquire cultural knowledge, break stereotypes, and develop new appreciation for, and interest in, diverse peoples and issues by directly experiencing the local context in which diversity resides. Connecting face-to-face with different local people and situations is meaningful to young learners. At L&C, teachers and students learned from five elders and eight tribal members who came to classrooms regularly to share stories based on an indigenous worldview, to teach what they learned from their ancestors, to speak in their Native language, to bring humor and wisdom, to open their hearts for new relationships that heal old wounds, and to bridge current gaps between Indians and Whites.

Through the voices and faces of local Indian people, Indian and non-Indian children discovered a new cultural realm where 'my' perspective is only one of many and 'others' are fascinating and enriching. The learning outcomes reported here provide additional evidence that community experiences are particularly valuable for advancing intercultural understanding and appreciation among elementary-school students and teachers (Cochran-Smith 2003, 8–9). As implemented at L&C, IEFA turned out to offer fruitful lessons for other schools in the USA and abroad intent on advancing multicultural education in the earliest grades.

The contributions of the L&C indigenous-education program to global education are likely to be manifest in the future. Face-to-face local interactions that activate all senses are powerful learning vehicles for transnational skill development. The foundation gains in analytic and emotional competence (see Koehn and Rosenau 2002) that spring from place-based intercultural education at the primary-school level promise to be of long-term value to participating L&C students in terms of contemporary civil-society citizenship and social action in both local community and transnational contexts (also see Koehn and Ngai 2006).

The contextual focus and the person-to-person emphasis of the L&C IEFA program increased student knowledge about Montana tribes and improved attitudes toward American Indians. Further research can help determine how such place-based intercultural education can be delivered most effectively on a scaled-up basis. To extend the L&C approach, further investigation needs to address the following issues:

- How can schools throughout Montana mainstream the most valuable lessons of the L&C approach to place-based indigenous education in the absence of a new round of state-funded grant support?

- Which knowledge and attitudinal gains will be sustained when participants in the L&C program are in secondary school?
- What specific forms of person-to-person interactions with migrants, diverse ethnic-group mentors, and indigenous student populations embedded in local school districts help unravel stereotypes and enrich student knowledge and dispositions? What specific learning outcomes are associated with different approaches?
- How can primary-school students be guided to apply place-based indigenous knowledge to more distant contexts? How can they be empowered to move fluidly back and forth along the local/global continuum?
- What are the most effective means of linking indigenous connectivity to global inclusiveness?
- How can teacher education be transformed so that tomorrow's teachers are equipped for and committed to addressing the educational challenges involved in IEFA and efforts to enhance students' transnational skills?

Notes

1. See *Phi Delta Kappan* special issue, November 2006.
2. For a promising approach that integrates multicultural learning at the primary-school level with the early development of transferable transnational competencies, see Ngai (2006).
3. Although first graders completed the survey for the first time in 2007, they had participated in the program during the previous year as kindergarteners.
4. The two exceptions are Sioux (13% difference) and Northern Cheyenne (16%).

Notes on contributors

Phyllis Bo-yuen Ngai teaches in the Department of Communication Studies at the University of Montana-Missoula. Dr Ngai's teaching and research focus on intercultural communication, multicultural education, indigenous education in public schools, and Native language revitalization policy and curriculum. Her publications include articles in *Journal of American Indian Education*, *Journal of Bilingual Education and Bilingualism*, *Equity and Excellence in Education*, *Journal of Studies in International Education*, *Bilingual Research Journal*, *Language, Culture and Curriculum*, and *Phi Delta Kappan*. From 2005 to 2007, Dr Ngai co-directed a place-based multicultural-education program at Lewis & Clark primary school in Missoula. Currently, she is co-directing an Indian Education for All teacher/Indian-family partnership project for all three middle schools in Missoula County Public Schools District #1.

Peter H. Koehn is Professor of Political Science, the University of Montana's Distinguished Scholar for 2005, and a Fulbright New Century Scholar. He currently is Director of the University's International Development Studies minor. He has taught and conducted research in Ethiopia, Nigeria, Eritrea, Namibia, China, and Hong Kong. His latest book, *Transnational competence: Empowering professional curricula for horizon-rising challenges* (2010), co-authored with James N. Rosenau, is available from Paradigm Publishers.

References

- Cochran-Smith, M. 2003. Standing at the crossroads: Multicultural teacher education at the beginning of the 21st century. *Multicultural Perspectives* 5, no. 3: 3–11.
- Gruenewald, D.A. 2008. *Place-based education in the global age*. New York: Lawrence Erlbaum.
- Juneau, D., and M.S. Broaddus. 2006. And still the waters flow: The legacy of Indian education in Montana. *Phi Delta Kappan* 88, no. 3: 193–7.

- Koehn, P.H., and P.B. Ngai. 2006. Citizenship education for an age of population mobility and globally interconnected destinies. *Finnish Journal of Ethnicity and Migration* 1, no. 1: 26–33.
- Koehn, P.H., and J.N. Rosenau. 2002. Transnational competence in an emergent epoch. *International Studies Perspectives* 3, May: 105–27.
- Merryfield, M.M. 1996. Learning from current practice: Looking across profiles of teacher educators and teacher education programs. In *Making connections between multicultural and global education: Teacher educators and teacher education programs*, ed. Merry M. Merryfield, 1–12. Washington, DC: American Association of Colleges for Teacher Education.
- Merryfield, M.M. 2001. Pedagogy for global perspectives in education: Studies of teachers' thinking and practice. In *Changing perspectives on international education*, ed. Patrick O'Meara, Howard D. Mehlinger, and Roxanna Ma Newman, 244–79. Bloomington, IN: Indiana University Press.
- Montana Legislative Services. 2009. Montana code annotated 2009. <http://data.opi.mt.gov/legbills/mca/20/1/20-1-501.htm>.
- Ngai, P.B. 2006. Grassroots suggestions for linking Native-language learning, Native American studies, and mainstream education in reservation schools with mixed Indian and White student populations. *Language, Culture & Curriculum* 19, no. 2: 220–37.
- Pugh, S.L., and J. Garcia. 1996. Issues-centered education in multicultural environments. In *Handbook on teaching social studies*, ed. Ronald W. Evans and David W. Saxe, 121–9. Washington, DC: National Council for the Social Studies.
- Sanchez, J. 2003. How American public schools using down-linked news media shape American Indian identity. *Howard Journal of Communication* 14: 39–48.
- Sleeter, C. 2003. Teaching globalization. *Multicultural Perspectives* 5, no. 2: 3–9.
- Wells, R. 2008. The global and the multicultural: Opportunities, challenges, and suggestions for teacher education. *Multicultural Perspectives* 10, no. 3: 142–9.

Copyright of Intercultural Education is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.