

# Getting Them Through the College Pipeline:

Critical Elements of Instruction Influencing  
School Success Among Native  
Canadian High School Students

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A large body of research suggests that worldwide, Native populations (also referred to as Aboriginal, Indigenous, or Indian populations in this paper) in dominant majority culture countries constitute a disproportionate number of students who leave school prematurely. Recent studies in Canada, for example, indicated a dropout rate of 66% among Native students compared to 37% for non-Natives (Binda, 2001a; Manitoba Aboriginal Affairs Secretariat, 2002). In the United States, the dropout rate among Native American students in public high schools is nearly 60% (Delisio, 2001; Germaine, 1996; Vail, 2004; Wood & Clay, 1996). Most Native students leave the public high school system before qualifying to enter postsecondary institutions. These students may not possess the requisite skills to participate in the economic life of their communities and society. In addition, they often lack the language and cultural knowledge of their people. Their identities and self-worth may be eroded. Therefore, they fail to realize the Native vision of culturally and linguistically competent youth ready to assume the responsibilities of their

As a consequence of the Civil Rights Movement and related social movements, the past 30 years have witnessed an unprecedented rise in higher education enrollments among ethnic minority groups, women, and low-income students, as well as increases in the financial aid available to these groups. However, certain ethnic minority populations, such as Native American and Native Canadian students, still experience difficulty in the transition from the K–12 school system to higher education, despite policies enacted to increase access. The research literature cites the disjuncture between the home cultures of these students and the environments of the school as a major cause of the failure of Native students to make the transition from the K–12 school system to higher education institutions. These findings have prompted calls for the integration of Native cultural knowledge and perspectives into the school curriculum. This Canadian study examined the outcomes of consistently integrating Native perspectives into the high school social studies curriculum throughout the 2003–2004 academic year. The teachers integrated Native cultural learning objectives, resources, and instructional methods. Critical elements of the integration processes that appeared to increase academic achievement, class attendance, and participation among Native students<sup>1</sup> are discussed. Teachers can draw on these elements to implement effective teaching strategies for the preparation of Native students along the college pipeline.

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nations (Royal Commission on Aboriginal Peoples [RCAP], 1996).

Prominent among the many factors identified in the literature as causing school failure for Native students in both Canada and the United States is the discontinuity between the home cultures of these students and the school environment (Cajete, 2000; Cox & Ramirez, 1992; English-Currie, 1990; Haig-Brown, Hodgson-Smith, Regnier, & Archibald; 1997; Kanu, 2002; Shade & New, 1993). Native students may move from their home communities to attend urban public schools, where more than 90% of the teachers are non-Native (Brady, 1995). In these cases, a lack of Native cultural knowledge/perspectives in school curricula and among teachers appears to be one of the crucial factors in school failure. This results in pedagogical and interaction patterns that produce negative learning experiences for Native students (Cajete; Haig-Brown et al.; Kirkness, 1998; RCAP, 1996). In Canada, the resulting underperformance and high dropout rates among Native students have led to diminished employment opportunities, poor socioeconomic conditions, increased reliance on welfare, and the necessity to create adult educational programs (e.g., the Upward Bound project in Winnipeg) to give Natives and other groups whom traditional education has failed a “second chance” (Binda, 2001a).

Native communities have responded to the lack of Native cultural knowledge in public school education in two ways. Beginning in the 1960s, they lobbied for programs that brought Native teachers into public school classrooms. Although there are many more Native teachers and many more Native teacher education programs than a decade ago, the numbers remain low relative to current and projected needs (RCAP, 1996). Second, in recognition of the Native teacher shortage, Native educators in both Canada and the United States have lobbied for the inclusion of Native cultural knowledge in school curricula (Binda, 2001b; Cajete, 2000; Weeks, 2003) in order to restore continuity between the home cultures of Native students and the schools they attend. These educators belong to a community of researchers who have extensively examined what Native students need in

order to succeed in school and have suggested that when Native students' cultural affiliation is valued in the classroom, motivation for learning is highest. According to Weeks (2003), Native and Western ideas converge; when teachers tap these confluences, learning becomes richer and more relevant. Native Canadian scholars, in particular, have argued strongly that the inclusion of Native cultural knowledge and perspectives across school curricula would close the achievement gap between Native students and their non-Native counterparts (Battiste, 1998; McAlpine, 2001) and increase the percentage of native students who graduate from high schools and continue into postsecondary education (Simard, 1994).

This study was a response to a call for the integration of Native perspectives into the curricula of Canadian public schools. There were three purposes: (1) to investigate how dominant culture teachers can usefully integrate Native cultural knowledge and perspectives into the teaching of the existing curricula of urban public schools; (2) to appraise the effects of such integration on the academic achievement, class attendance, and school retention of Native students; and (3) to identify and document the critical elements of instruction that appear to influence the academic achievement, class attendance, and school retention of Native students. This paper focuses on the third of these purposes: the critical elements of instruction. Documentation of the critical elements of instruction influencing the school success of Native students in dominant culture school contexts is particularly important in light of Kleinfeld's (1995) study of Native Alaskan students. According to Kleinfeld, what differentiated effective teachers of Indian and Eskimo students was their instructional style, not their ethnic membership. As school personnel seek equitable ways to prepare students for college, teachers might draw upon these elements to enhance and support classroom learning for Native students. Teacher educators might also use such elements to prepare future teachers for cross-cultural instruction of Native students.

First, I describe the theoretical framework that informed the study and the research methodology that describes how Native

cultural knowledge and perspectives were integrated into the school curriculum. This is followed by a discussion of the effects of this integration on the academic achievement, class attendance and participation, and retention of the Native students in the study.

## Theoretical Framework

This research is grounded in socio-cultural theories of cognition and learning (e.g., Gay, 2000; Nieto, 1998; Vygotsky, 1981; Wertsch, 1991; Winzer & Mazurek, 1998) and radical multiculturalism (Banks, 1994; Kanpol & McLaren, 1995; McLaren, 1997). Socio-cultural theories link the development of children's thinking, communication, learning, and motivational styles with the culture into which they are socialized, and posit that an intricate connection exists between culture and student learning. According to Wertsch (1991), all forms of cognition are socially situated within the contexts of small groups and within broader social and institutional settings; cultural mediation constitutes one way by which cognitive processes become contextualized. Vygotsky (1981) asserted that various semiotic systems are used to negotiate meanings between individuals and to negotiate higher mental functions. These systems develop in specific ways within different cultures and act as negotiators of meaning and as agents that transform mental functions. Winzer and Mazurek (1998) agreed, stating that children's conceptual frameworks (i.e., their learning and thinking processes) are deeply embedded in their own cultures. Difficulties in classroom learning and interactions may arise when there is a discontinuity of, or mismatch between, a child's culture and all the intricate subsets of that culture, and the culture of the teacher and the classroom. This may predispose the child to failure if the school or the teacher is not sensitive to the special needs of that child (see also Kanu, 2002, 2005, in press). Cultural socialization, therefore, influences how students learn, particularly how they negotiate, mediate, and respond to curricular materials, instructional strategies, learning tasks, and

communication patterns in the classroom. Socio-cultural theories assume that making the curriculum and the classroom processes compatible with the cultures of the students will produce a higher rate of academic achievement and school success for those students whose home cultures would otherwise conflict with those of the school. They thus argue strongly for the inclusion (and hence continuation) of learners' cultural knowledge and experiences in the teaching and learning processes to make education accessible, relevant, and liberatory for the students. Unfortunately, the occasional inclusion of nondominant cultural perspectives in the school curriculum neither entrenches multiple perspectives as part of mainstream academic knowledge nor sufficiently responds to diversity in the classroom. This has led radical multicultural theorists to advocate for consistent integration of minority cultural perspectives throughout the school curriculum, both to destabilize the dominant culture's hegemony in the schooling processes (McLaren, 1997) and to address the issue of equity, as well as the qualitative value of justice (Dei, Mazucca, McIsaac, & Zine, 1997).

The adoption of socio-cultural or cultural discontinuity and multicultural frameworks for understanding, interpreting, and reporting on the effects of the integration of Native perspectives into the social studies curriculum did not discount alternative theories that have been applied to understand cultural conflict and minority student failure. Examples of alternative theories include macro-structural explanations of how the larger social, political, and economic structures outside of school influence the school experiences of minority students (Ogbu, 1982, 1987), and antiracism frameworks (e.g., Dei et al., 1997) that investigate how the institutional structures of the schooling processes affect students' identities (race, class, gender, and sexuality). Where relevant, these alternative theories were also taken into consideration in the data analysis and interpretation of this study.

## Research Methodology

The research study investigated three central questions:

1. What are the most effective ways to integrate Native cultural knowledge and perspectives into the curriculum of urban public high schools?
2. How does such integration impact academic achievement, class attendance, and school retention among urban Native students in the public high school system?
3. What are the critical elements of instruction that appear to affect academic achievement, class attendance, and school retention among urban Native students?

The research was carried out in an inner-city high school selected for its mix of Native and non-Native students with predominantly Anglo and Euro-Canadian teachers. Close to 33% of the 1,100 students in this school were of Native-Canadian heritage. Data collection occurred in two ninth-grade social studies classrooms. For ease of understanding, I will refer to the classroom where the integrated curriculum was taught as the “integration” classroom and the other classroom where the regular [nonintegrated] curriculum was taught as the “regular” classroom. Social studies classrooms were selected because social studies offers opportunities for the use of a variety of curricular materials, teaching strategies, and learning tasks that apply across different academic subjects. According to Kleinfeld’s (1995) Alaska study, Native students in ninth grade consist mainly of those who are first experiencing transition from small Band-controlled community schools to large urban secondary schools, and these students generally respond with silent withdrawal in the classroom. Because instructional problems at this stage are most acute, the effects of different teaching processes are likely to be visible in ninth-grade classes.

Research participants included 31 Native students (15 from the integration classroom and 16 from the regular classroom) and the 2 dominant culture (Anglo-Canadian) social studies teachers who taught these students. The majority of the students

in this school and all of the students in the study were from low socioeconomic backgrounds. Among the 31 Native students taking part in the study, 27 reported having access to help and support with their schoolwork at home. Prior to beginning the study, the teachers reported that students were assigned heterogeneously to their social studies classes and that, based on their 2002–2003 grades, the overall academic ability across the two classes was fairly similar. The two teachers had similar qualifications (a bachelor's degree with a major in the social studies areas of history and geography) and more than 15 years of social studies teaching experience in the ninth grade classroom. Both teachers reported similar teaching goals: developing students' conceptual understanding of social studies topics and their ability to apply learning beyond the lessons. Both teachers expressed the belief that Native perspectives should be integrated into school curricula. However, the two teachers differed in terms of how they understood and implemented the integration of Native perspectives into the curriculum. This difference could account for the disparity we observed in student performance in the two classrooms. Teacher A from the integration classroom expressed a strong sense of self-efficacy in his ability to integrate Native perspectives into the curriculum, and he placed integration at the center of his teaching. On the other hand, Teacher B from the regular classroom practiced integration by occasionally adding Native content and perspectives where convenient, into a curriculum that remained largely Euro-centric. Teacher B believed that the controversial nature of most Native issues, his own lack of knowledge of Native culture, and the dearth of easily available Native resources for classroom use were serious impediments to the integration of Native perspectives.

Both teachers used the same social studies textbook (*Canada Today*, an interdisciplinary social studies textbook) and taught social studies twice a week. However, although Native perspectives were deliberately and consistently integrated into the planning and teaching of the units in Teacher A's classroom, no such integration occurred in Teacher B's classroom.



Working with Teacher A, we (the researcher/author and her two Native Canadian graduate research assistants) integrated Native perspectives into (a) the student learning outcomes for each unit, (b) the instructional methods and strategies, (c) the learning resources and materials, (d) the assessment of student learning, and (e) as a philosophical underpinning of the curriculum.

### *Integrating Student Learning Outcomes*

In setting student learning outcomes, we targeted Native and non-Native perspectives. Although the specific learning outcomes depended on the specific lessons, we identified and included values and issues reported as common and important among many Native-Canadian communities. We infused instruction on understanding the importance of respect in Native cultures, the vital role of elders, the importance of family and community to Native identity, the importance of spirituality in learning and education and in the lives of many Native peoples, the various effects of European contact and settlement on Native peoples, and Native contributions to Canadian society into the social studies curriculum.

### *Integrating Native Learning Resources*

Where appropriate, we used Native literature (e.g., Moses & Goldie, 1992; Roman, 1998) to complement social studies unit topics. For example, Native origin and creation stories, stories describing Native ceremonies, and stories depicting the holistic and interconnected nature of Native identity were integrated into the ninth-grade unit on Canadian identity. To enhance certain social studies unit topics, we incorporated videos and print material on Native issues and perspectives. For example, we included videos on the various ways in which European contact impacted Native lives, and print materials on how the Indian Acts violated the human rights of Native peoples. We integrated materials that addressed Native content and perspectives that were absent from the regular curriculum or that provided coun-

ter-stories to what was presented in the textbook. For example, we incorporated Native governing structures prior to European contact into the unit on government and federalism, to counter the myth that Natives had no organized form of government before the arrival of Europeans. As elaborated elsewhere (Kanu, in press), this aggressive integration of Native resources into every unit was intended to provide breadth and depth of understanding of the content of those units and to promote the development of higher cognitive skills such as reasoning and drawing conclusions based on multiple sources of evidence. In addition, this integration facilitated contrapuntal readings (Said, 1993) of the curriculum content, the reading and understanding of the content material from the perspectives of the “other,” usually the colonized and the subjugated.

### *Integrating Instructional Methods and Strategies*

Pedagogical practices that had been documented as effective in the teaching and learning of Native students were incorporated. Where appropriate, we used stories to enhance students’ understanding of curriculum content. Sharing and talking circles facilitated discussion on an equal, respectful, and nonthreatening basis. Illustrations and examples from Native culture and experience provided learning scaffolds. Fieldtrips included visits to a pow-wow and a sweat-lodge. The social studies lessons fostered community support through group work and classroom visits by knowledgeable guest speakers from Native communities. Lessons promoted kinesthetic, visual, and auditory learning. Individual work and collaborative group projects provided ample opportunity for independent decision-making and problem solving, both of which are valued educational goals in Aboriginal child rearing (Manitoba Education & Training, 2003).

### *Integrating Assessment Strategies*

The assessment of student learning utilized journals and portfolios, where students reflected on classroom activities and

artifacts. Other assessments included students' written work, class presentations of research projects (several on Native peoples and issues), story and drama performances, and traditional paper-and-pencil tests.

### *Integration as a Philosophical Underpinning of the Curriculum*

When the integration of Native perspectives is a philosophical underpinning of the curriculum, it ceases to be an occasional add-on activity in the classroom and becomes an integral part of curriculum implementation (Kanu, in press). During an informal conversation with Teacher A prior to the commencement of the study, he expressed a strong belief in the transformative power of integration of Native culture to enhance the understanding of all students about Native issues, to increase the self-esteem and pride of Native students, and to alleviate ignorance and racism among dominant cultural groups. For this reason, he integrated Native perspectives into not only in his social studies course, but also his other courses, and even his extracurricular activities with students. For instance, because of the increase in diabetes among Native peoples, this teacher encouraged more Native students to participate in gym and other physical activities. "The students love the game of lacrosse, so I stay after school to play it with them" (personal interview, June 12, 2004). Pictures, illustrations, and sayings reflecting Native spiritual values such as the Seven Sacred Teachings (Wisdom, Respect, Love, Courage, Humility, Truth, and Honesty) filled the walls of his classroom. For instance, he displayed an enlightening poem explaining the Native practice of "smudging" (e.g., "We smudge our eyes so that we'll only see the truth in others." "We smudge our whole being so that we may portray the good parts of ourselves through actions."). A poster entitled "Great Peoples of the Past" contained portraits and accomplishments of Inca Indians along with other prominent explorers and inventors. A huge wall map displayed the names of North America's First Peoples and where they are located. Prominently showcased on Teacher

A's "Consciousness Cupboard" were George Ancona's vividly illustrated book *PowWow*, Diane Hoyt-Goldsmith's *Potlatch: Tsimshian Celebration*, and Basil Johnson's *Ojibway Ceremonies*. Students' class assignments and research projects often required them to utilize these resources.

These five approaches to the integration of Native perspectives into the social studies curriculum continued throughout the year in Teacher A's class. To ensure fidelity of treatment during the teaching of the units, Teacher A was observed 63 times during a 36-week period by the researcher and/or her research assistant. Thus, we were able to determine that, to a large extent, he was faithful to the lesson plans that we had prepared together with him. During the same time period, the teacher in the regular class was observed 34 times. Neither the researcher nor her Native graduate students taught in either of the two classes.

## Data Collection

The study utilized four methods of data collection. We collected data on classroom teaching processes and interactions through field notes, audiotapes, and sometimes video-recording to permit more intensive analysis of interactions, episodes, and processes. These data later provided the material for semi-structured interviews with the students. We also collected site texts, such as classroom-based scores on three social studies tests, two end-of-term exams and two class assignments or projects, samples of Native students' written work, exit slips where each student summarized what he or she had learned in each lesson, and records of student attendance, class participation, and school retention. The tests, exams, assignments, and projects were the same for both types of classrooms, and care was taken to target conceptual understanding and higher level thinking in setting the tests, exams, and assignments. Teacher A and his students kept journals where they reflected on classroom activities, assignments, and the integration processes. We conducted semistructured and open-ended interviews with the 31 Native

students to gain insights into their reactions to the teaching processes, episodes, and interactions. Using stimulated recall techniques (Calderhead, 1987), we asked interviewees to view, read, or listen to and then interpret and comment on classroom episodes, interactions, and processes. This allowed us to identify the critical elements of instruction that appeared to affect academic achievement, class attendance and participation, and school retention among the Native students. Interviews were audio recorded, transcribed verbatim, and returned to the participants for verification before analyzing them as data.

## Data Analysis

The research team and the student interviewees examined collected data on teaching processes and interactions in both classrooms to discern critical elements of instruction that appeared to affect academic achievement, attendance, and retention. Identified elements underwent an extensive ongoing process of constant comparative analysis (Bogdan & Biklen, 1998). We compared scores on class exams and assignments, as well as data on class attendance and school retention among Aboriginal students in both classrooms, and we used charts to display the findings clearly and concisely. We examined exit slips and collected samples of students' written work for evidence of conceptual understanding and higher level thinking versus simple recall of information.

## Findings and Discussion

### *Impact on Academic Achievement*

Native students in the integration class significantly outperformed their counterparts in the regular class on social studies exam scores. They also demonstrated a broader understanding of social studies content, higher level thinking, and improved

self-confidence as the year progressed. Native students who were regular attendees in the integration classroom demonstrated a pass rate of 88.2% on exams and assignments. Their overall scores ranged between 61% and 83%, with a class average of 72%. The pass rate among regular attendees in the nonintegrated class was 44%. Their overall scores ranged between 40% and 60%, with a class average of 48%. The written responses of the students in the integration class revealed higher conceptual understanding and included examples that juxtaposed Native perspectives with the perspectives of their textbooks. The Native students in the integrated class also demonstrated more confidence and more verbal participation in class. Native students' responses in the regular class were more infrequent and were often limited to one or two words.

### *Impact on School Retention*

There was no apparent connection between student attrition and the integration of Native perspectives. When the academic year began on September 3, 2003, there was a total of 39 Native students in both classrooms. By mid-October, 8 of these students (3 from the integration class and 5 from the regular class) had left, either because of parental relocation, pregnancy, or because these students were transferred into the school's transition program (an alternative program for students designated as not yet able to cope with high school academic work). These findings suggest that factors other than cultural discontinuity may account for attrition among Native students (e.g., frequent mobility or high rates of migrancy).

### *Impact on Class Attendance and Regularity*

We did not find differences between the two classrooms in terms of physical attendance and regularity. In each classroom, there was a steady group of Native students who were regular attendees—10 students with an average attendance rate of 87% in the integration class, and 7 students with 83% attendance rate

in the regular class. Attendance among the rest of the Native students in both classroom types remained sporadic. This was reflected in the lower test scores of these students, which ranged between 40% and 60%.

However, a clear difference supporting the cultural discontinuity theory emerged when regular attendees in both classrooms were asked in an interview to provide reasons for their regular attendance in social studies class. The reasons for attending class that were provided by the regular attendees in the integration class included the following: developing a better understanding of Native history and Native issues, increased pride in their cultural identity, and gaining self-confidence and higher self-esteem. They mentioned looking forward to social studies classes. By contrast, 5 of the 7 regular attendees in the other class reported that the only reason they came to social studies classes regularly was because they were “required or forced” to do so. One of them elaborated, “If I don’t get my attendance slip signed by Mr. H. [Teacher B] I will lose the government financial assistance I am getting for attending classes” (Native student interview, June 18, 2004).

Significantly, the interviews revealed that reasons other than the integration of Native cultural knowledge and perspectives into the social studies curriculum contributed to the frequent or prolonged absenteeism among Native students in both classrooms. Some of the reasons cited were having to take care of younger siblings at home; having no money and needing to work; having problems with parents, foster parents, or guardians; having legal issues (e.g., incarceration at juvenile centers; attendance at juvenile court); and returning to the reservation for a funeral, a wedding, or just to be with family. This complex array of issues indicates that the integration of Native perspectives alone cannot reverse achievement trends for all Native students. This suggests the need to look beyond the cultural discontinuity theory, towards macro-structural variables to account for irregular school attendance among some Native students. Such variables include the culture of poverty perpetuated by low Native employment

rates and underresourced Native reserve schools that may necessitate student migration to urban centers to attend high school.

## **Critical Elements of Instruction That Appeared to Influence Academic Achievement, Class Attendance, and Participation Among Native Students**

The research data revealed several elements of the integration processes that were critical to increasing academic achievement, class attendance, and participation among the Native students in the study. These elements were teachers' sense of efficacy, teacher capacity, the integration of Native perspectives as student learning outcomes, the use of teaching and assessment methods and resources compatible with Native cultural knowledge and perspectives, community participation, and the creation of a nurturing learning environment.

### *Teachers' Sense of Efficacy*

A teacher's sense of efficacy connotes judgments about the teacher's own perceptions of his or her capability to accomplish a task. Compared to teachers with low self-efficacy beliefs, teachers with strong perceptions of their own capability tend to employ classroom strategies that produce positive effects on students (Goddard, Hoy, & Hoy, 2004). In this study, Teacher A's strong self-efficacy beliefs regarding the integration of Native perspectives led him to take measures that low-efficacy teachers may have found time-consuming or extraordinarily difficult. For instance, he reported attending informational workshops, reading materials on Native education, and mingling with Native peoples to enhance his knowledge and understanding of Native cultures and Native issues. He sometimes used his own resources to acquire the materials he needed, and he routinely spent time adapting material for student use in his lessons. Teacher A com-



mented “. . . where there is a will, there is a way. . . .” and “I believe we can learn a lot from Native cultures” (personal interview, August 12, 2004). Therefore, we deduced that Teacher A’s strong sense of self-efficacy explained why he perceived and approached the integration of Native perspectives as a central element of the curricula he taught. This and previous similar findings (e.g., Anderson, Greene, & Loewen, 1988; Ross, 1994) suggest positive links between teachers’ sense of efficacy and student achievement. In light of these promising results, schools should explore effective ways to develop and strengthen teachers’ efficacy beliefs about their collective capability to execute required courses of action to increase their Native students’ school success and transition to college. From a theoretical perspective, “the link between collective efficacy beliefs and student achievement occurs because . . . a robust sense of group capability establishes expectations (cultural norms) for success that encourages organizational members to work resiliently toward desired ends” (Goddard et al., 2004, p. 8). According to a study by Goddard (2002), teachers tend to have a robust sense of their conjoint capability when they have the opportunity to influence instructionally relevant school decisions.

### *Teacher Capacity*

Directly related to the teacher’s sense of efficacy is teacher capacity, defined here as the teacher’s knowledge (of the subject matter or Native issues), attitude, personal interactions and instructional style, expectations for students, and commitment. Analysis of the field notes, videos, interviews and student journal entries suggested that for *all* of the students interviewed, teacher capacity appeared to be the most critical factor affecting academic achievement. In the integration class, Native and non-Native student interviewees alike mentioned the following as critical factors in their superior academic performance: the “awesome ability of their teacher to explain concepts in clear and simple language,” his “use of a variety of teaching methods and strategies” that appealed to different learning needs, “his knowledge

of Native culture” and his consistent “effort to integrate Native culture and content into social studies,” his ability to “encourage and motivate all students,” and “his positive attitude, high expectations for students, and respectful interactions with all students, especially Native students” (excerpts from students’ interviews, June 15, 2004). By contrast, interviewees from the regular class frequently expressed the need for a teacher “who cares,” “who is interested in us,” and “who can use teaching methods and resources other than transparency notes or the textbook and its end-of-chapter questions most of the time . . .” (excerpts from Native students’ interviews, June 18, 2004).

Teacher capacity may account for the observed differences in student performance in the two classes, suggesting that successful integration requires sensitive caring teachers who are knowledgeable about Native issues and cultures and value them sufficiently to integrate them into the school curriculum on a consistent basis. This finding is supported by Bishop, Berryman, and Richardson’s (2002) study, which identified similar teacher personal attributes and pedagogical style as the crucial factors that promoted literacy learning skills among years 1–5 Native Maori students in New Zealand. In Kanu’s (2002) study, Canadian Native students identified positive teacher attitude and teacher warmth and respect toward Native students as important factors that enhanced their learning in the public school system. Couture (1985) also supports this finding in his reference to the responsibility of the classroom teacher in accepting and accommodating Aboriginal students in the class. He wrote “the challenge (for the teacher) is to acquire an understanding of fundamental Native cultural values and to create the conditions for maintenance and reproduction of these values” (p. 7). Curwen Doige (2003) has also argued that accepting and accommodating Native students must move beyond whether they are visual learners, toward an understanding and acceptance of the paradigms from which they make meaning. For instance, through skillful classroom discussions of Aboriginal beliefs and values (e.g., the role of Aboriginal myths, rituals, and ceremonies in identity formation), Teacher A was able to infuse Native

spirituality (an important source of meaning-making for many Native peoples) into the ninth-grade social studies curriculum, thereby enabling the students to develop a stronger sense of who they were. These discussions were a mutually beneficial process. They provided learning opportunities not only for the students, but also for the teacher, whose enhanced knowledge and understanding of Aboriginal culture liberated him from the position of the outside authority (Cajete as cited in Curwen Doige, 2003). Together, these findings suggest the need for policy makers to provide sustainable funding and encouragement for programs that improve the capacity of teachers to integrate Native perspectives effectively (Kanu, in press).

### *Native Perspectives as Student Learning Outcomes*

From the beginning, Teacher A and the Native graduate research assistants expressed a firm belief that identifying Native student learning outcomes for each unit of study and integrating these outcomes at the lesson planning stage would be an effective approach to the integration of Aboriginal perspectives. From the point of view of the Native research assistants, prior identification and integration of Native learning outcomes at the lesson planning stage not only highlights important perspectives worth teaching and learning in the classroom, but also provides direction and focus for teachers wanting to integrate Native perspectives. From the perspective of Teacher A, the inclusion of Native perspectives as student learning outcomes was simply

. . . sound pedagogical practice because it places students at the center of one's teaching—who they are, their aspirations, and how these can be achieved. I always keep my students in mind when I set learning goals and when I look for content and resource materials . . . and these goals feature prominently in my assessments. I never forget the links. (personal interview, June 15, 2004)

This claim was supported by our observations of this teacher's classroom. Teacher A shared learning outcomes with students at the beginning of each lesson because "I believe that sharing learning objectives informs the students about what I am trying to accomplish in the lesson and how they can help me get there . . ." (personal interview, June 15, 2004). Students were required to complete exit slips listing the learning outcomes that had been achieved, and many of the Native students reported that inclusion of Native perspectives as learning outcomes helped them to see the relevance of the lesson to their lives. As one of them said during an interview, "this keeps us focused" (personal interview, June 15, 2004). In addition, we (the researchers) were frequently invited to provide feedback on the extent to which intended learning outcomes had been addressed and to discuss any unplanned outcomes of the lesson that had emerged. Hence, integrating Native outcomes at the level of learning outcomes may help the students and the teacher keep their minds firmly focused while remaining alert to unintended learning that may occur during the lesson.

### *Integration of Compatible Teaching Methods*

As indicated earlier, a variety of teaching and learning methods were used in the integration classroom. The Native students in that class identified four of these methods as particularly appealing and effective in promoting learning for them. These methods were the use of stories, Native guest speakers, field trips to Native communities, and discussion circles. According to some Native students, stories appeared to be effective for teaching content and for developing higher level thinking skills such as making inferences and drawing analogies. "First we listen to the story as Mr. B [Teacher A] reads it aloud and then we are asked to explain the lessons [the events] in the story and how they are different or similar to our lives or to what we are discussing that day" (Native student, personal interview, June 12, 2004). The field trips to a sweat lodge and a pow-wow and ensuing circle discussions were particularly valuable for two reasons.

The trips provided the opportunity for Native students “to better understand and appreciate our cultural ceremonies and develop pride in our culture.” The circle discussions gave them voice and “confidence to discuss our knowledge and our opinions” (Native student, personal interview, June 15, 2004). As their confidence grew during the year, the Native students began openly challenging views that they considered racist or stereotypical in their classroom. For example, during a small-group activity in the class, a Native student was overheard saying to another Native students, “You should never think that all White people hate smudging. . . .”

Classroom visits by Native elders and other experts from Native communities motivated the students in the integration classroom, enhanced the pride of Native students in Native knowledge and culture, informed Native and non-Native students about Native issues, and created connections between curricular topics and the real world of Native students. During the research, we arranged for three separate visits by Native elders and experts to the integration classroom. Native and non-Native students alike described these visits as beneficial. For instance, after a classroom visit and follow-up discussion session with Joe (all names used in this paper are pseudonyms), an Ojibway athlete and teacher who reported finding fulfillment in life through sports, a Native student in the integration class said, “Joe’s story was awesome. I can see myself going in that direction too . . .” (informal conversation, March 10, 2004). A non-Native student, reflecting on a visit by a Native elder, wrote in his journal: “I have often heard that the sweet-grass ceremony is superstition. This week, I learned from Les [the Native elder] that the sweat-lodge, the drumming ceremony, and the sweet-grass are part of Native spirituality. We all have ways of expressing our spirituality” (January 24, 2004). Community participation through elders and guest speakers from Native communities validated and accorded respect to Native knowledge in the classroom. We interpreted this as having a liberating effect because these elements released Native students from the constraints of dominant cultural canons of knowledge.

### *Integration of Native Resources*

The integration of Native resources appeared to promote breadth and depth of understanding of curriculum content and higher cognitive skills such as reasoning and drawing conclusions. In both respects, students reported that the counter-stories we provided, or those they found on their own through research, were particularly useful for understanding and challenging what was presented as factual content in the school curriculum. For example, after a unit on human rights during which several supplemental content materials were added to the textbook unit, a Native student remarked, “. . . Our discussion of the Aboriginal interpretation of the 1876 Indian Act provided a different perspective and that really opened my eyes. . . . I cannot believe that Aboriginals were not allowed to leave their reserves without a permit.” Another said, “I now see the banning of Aboriginal ceremonies in the past as cultural genocide, and I can defend my position on that if asked . . .” (informal conversation, March 24, 2004).

These positive effects notwithstanding, integration at the resource level was the most difficult to accomplish due to the limited Native learning resources for student classroom use. To varying degrees, both teachers in the study identified this problem as a serious challenge to the integration of Native perspectives in the classroom. For example, Teacher A wrote in his personal journal, “The biggest single issue has been the lack of appropriate resources for students. Most of the resources I have managed to find are at a reading level too difficult for the students. . . . I believe that appropriate student resources are the key to integration” (September 2, 2003). Teacher B also cited the lack of student-level resources as one of his two main reasons for not integrating Native perspectives (the other reason was his perception that Native issues are too controversial). During our interview with him, Teacher B said, “Adapting the available materials to classroom level takes an incredible amount of time, time which most teachers, including myself, do not have” (personal interview, June 20, 2004). This finding suggests the need for

greater attention to resource development to facilitate successful integration. In an earlier study (Kanu, 2005), teachers perceived similar lack of resources as a major impediment to the integration of Native perspectives. Similar findings were also reported by a nonprofit Canadian education research agency, Society for the Advancement of Excellence in Education (SAEE, 2004). They studied 10 schools across Western Canada where the integration of Native perspectives into the school curricula was being undertaken. The SAEE study recommended funding for student resources if the intent of the federal government was to ensure that Native students received a level of education equivalent to their non-Native peers.

### *Assessment Strategies*

Some of the strategies we used to assess Native student learning appeared to be more effective than others. For example, four Native students reported not being comfortable with oral presentations in front of the class. Student comments included “I am really a shy person” and “In front of an audience, I tend to forget what I want to say” (personal interview, June 18, 2004). However, the use of journals seemed acceptable to everyone. The Native students preferred journal writing because it provided an opportunity to reflect on how they felt, thought, and experienced the content material and the activities provided in the class. According to Curwen Doige (2003), strategies such as journal writing add an element of spirituality to Aboriginal student learning because the students actually get the chance to “spiritually” work through curriculum content and classroom experiences from the inside out as they reflect on these experiences and write about them.

### *A Nurturing Learning Environment*

Students in the integration class identified a nurturing learning environment as a critical element of instruction that promoted learning for them. By this, they meant a learning envi-

ronment “that is open [freedom to speak]” and “creates opportunity for our voices to be heard.” Asked how such an environment had contributed to her learning, a Native student from the integration class responded, “I feel respected in this class. Mr. B. [Teacher A] always insists that we listen to each other and respect what each of us has to say.” A non-Native student agreed, “I have learned more by listening to what they [Native students] feel when they are stereotyped” (student interviews, June 18, 2004). This student revealed that the respectful circle discussions in their class had helped him to better understand certain Native issues and to change some stereotypical views he had held about Native peoples. Curwen Doige (2003) has highlighted the crucial importance of an appropriate learning environment in fostering the spirituality of Native students in the learning process. In a self-study of her own teaching in a class of Native and non-Native students enrolled in an Aboriginal Children’s Literature course (ED4688) in an eastern Canadian university, Curwen Doige discerned that an appropriate learning environment helps students gain insights into their own values and beliefs, connect learning to their prior knowledge systems, and value persons for who they are. She wrote, “Holding the spirit of each student in genuine respect is crucial to the learning that occurs in ED4688. I believe it is also foundational to cross-cultural understanding in any classroom with any age group” (p. 157). The creation of such a classroom environment is also grounded in sound theories of learning and development (see, for example, Battiste, 1998; Bruner, 1971; Cajete, 1994; Rogers, 1969).

## Conclusion

Native cultural knowledge and perspectives were consistently integrated into the social studies curriculum of a Canadian inner-city public high school. This paper discussed some critical elements of instruction that appeared to enhance classroom learning for Native students. Previous studies have reported gains when Native perspectives are included in school curricula. However,



there is still a dearth of knowledge about the specific elements of such inclusion that work best to reach Native students. Teachers can use these results to enhance their understanding of how best to teach Native students. The goal is to encourage Native students to complete high school and enter postsecondary institutions. It appears from this study that the integration of Native perspectives at the levels of student learning outcomes, instructional methods and resources, assessment of student learning, and as a philosophical underpinning of the curriculum may result in better test scores, better conceptual understanding and higher level thinking, improved self-confidence, and increased motivation among some Native students to attend classes. These outcomes are of crucial importance, not only for transitioning from high school to higher education institutions, but also for retention and success in those institutions. Teacher capacity, motivated by strong teacher efficacy beliefs, appears to be the most important factor affecting academic achievement, class attendance, and participation among the Native students in this study. Native resources, community involvement, and respectful and nurturing learning environments also appeared to enhance classroom learning for Native students.

However, as the class attendance and school retention data in this study show, it would be naïve to conclude that the integration of these critical elements alone will ensure the transition of Native students from the K–12 school system to college or close the academic achievement gap between Native Canadians and their White middle-class counterparts without addressing the macro-structural variables of poverty and high rates of migrancy. That said, school factors such as low teacher expectations, racial discrimination and differential treatment of non-White students, curriculum delivery and pedagogical practices, and disconnection between school curricula and students' lives have also been found to contribute to irregular attendance, disengagement with school, and eventual dropout among minority students (Coladarci, 1983; Dei et al., 1997; Deyhle, 1995; Vogt et al., 1987). Schools are increasingly being held accountable for student achievement in the K–12 system, which is the pipeline

to higher education. Therefore, processes that contribute to equitable and effective delivery of education for particular groups of students are invaluable. In this regard, the critical elements of instruction identified in this paper provide important strategies for classrooms with Native students.

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## Author Note

The research on which this paper is based has been reported in two other publications (Kanu, 2005, in press). However, the critical elements of instruction influencing Native student performance, which is the topic of this paper, was not the focus of those publications.

## End Notes

1 The Native Canadian students who participated in this study were of Cree, Ojibway, Salteaux, and Metis ancestry.