

IMPROVING ACHIEVEMENT AND OTHER OUTCOMES AMONG URBAN NATIVE STUDENTS

John Kehoe
Department of Social and Educational Studies
Faculty of Education
University of British Columbia
Vancouver, British Columbia
Canada, V6T 1Z4

and

Frank Echols
Department of Social and Educational Studies
Faculty of Education
University of British Columbia
Vancouver, British Columbia
Canada, V6T 1Z4

Abstract/Résumé

Urban schools must increase achievement levels and reduce drop-out levels of Aboriginal students. Evidence suggests that higher levels of achievement are more likely if Aboriginal cultures are taken more seriously. The authors suggest that needs assessments, ethnographic study by outsiders, reviews of programs and research, and program evaluation are all necessary.

Il faut que les écoles urbaines augmentent leurs niveaux de réalisation et qu'elles réduisent les nombres d'étudiants qui se retirent. L'évidence suggère que de plus grands niveaux de réalisation soient plus probables si on prend plus sérieusement les cultures aborigènes. L'auteur suggère que l'évaluation des besoins, l'étude ethnographique par des personnes indépendantes, les revues des programmes et des recherches, et l'évaluation des programmes sont toutes nécessaires.

Introduction

One of the most serious concerns of educators today is the lack of success with urban Native students. Statistics Canada's *Aboriginal People Survey* (1991) found that 17 percent of Native people between the ages of 15 and 49 either lack formal schooling or have less than grade 9 education. This figure is almost three times greater than the reported 6 percent for the total Canadian population. Urban Native parents are concerned about the lack of success which schools demonstrate in teaching their children. More (1984), in a review of research on the goals of Native communities, stated that all studies show a strong desire by Native parents to have their children do as well on standardized achievement tests as non-Native children. They want their children to complete grade twelve, be prepared for the world of work and to have pride in their heritage. Enhanced self-esteem, a sense of belonging, a lower drop-out rate and more positive inter-group attitudes might also be worthwhile program goals.

Urban schools are faced with the challenge of dramatically increasing the levels of achievement and lowering the drop-out rates among their Native clientele. If urban schools do not succeed they will be by-passed because urban Native parents will no longer tolerate low performance levels. In the late 1950s and early 1960s, Indian children were placed in provincial school systems by bussing them to town and village schools. After ten years it was clear to many parents that this policy did not provide an equal education and seemed unlikely to be able to do so in the future. All too often White teachers made the children feel backward and unwelcome while many White children refused to mix with them. The curriculum made no changes to recognize Native cultures and no changes were made to accommodate the learning styles and the ways of life of Native children. Many communities made the decision to return to Band schools and to take control of the education of their children. Improvements in education levels have been the result in most instances. The Alexander Band in Alberta, for example, took over schooling when the drop-out rate was close to one hundred percent. The *Red Deer Advocate* reported that by 1989, the drop-out rate had fallen to fifteen percent (*Red Deer Advocate*, 1989).

If urban schools do not soon significantly improve the levels of achievement of Native children, then Native parents will have a strong case for segregation. They have the examples of the Band schools as well as such urban examples as the Plains Indian Cultural Survival School in Calgary. This school was established by a group of Native people and has been

operating for more than 10 years. "It has a drop out rate of about twenty percent compared to the eighty-five to ninety percent drop out rate in city schools, and the students do as well as the provincial average on departmental exams" (Buckley, 1992:147). The segregation of any cultural group into different schools is generally undesirable. Public schools should provide an environment which teaches students from all cultures to develop more positive inter-group attitudes; have pride in their different heritages; and most important, attain equivalency in achievement. If urban public schools do not make a contribution to these outcomes, then Native parents have a strong case for high quality, Native controlled schools.

There is increasing evidence to suggest that higher levels of achievement among Native students are more likely to occur if serious accommodations are made by schools to Native culture. The guiding principle in program development should be to change the schools to fit the children rather than trying to change the children to fit the schools. The process of changing the schools does not necessarily mean that drastic changes would have to be made in school practices. Nor does it mean that some aspects of urban Native family culture will not change. A policy of "least change" on the part of the home and the school should be followed because it will increase the likelihood of change actually taking place. This paper briefly describes the evidence for achievement, drop-out rates, sense of belonging, self-esteem, inter-group attitudes and pride in heritage among urban Native students and makes some suggestions for improvement based upon this research.

Achievement

The fundamental goal of any minority education program should be equivalency in achievement. If there is not equivalency in achievement, then there is little likelihood of equality of opportunity. There is already ample evidence that urban Native students do less well on standardized measures of achievement than other students. More (1984) examined fifteen studies concerned with the quality of education for Native students. In every measure of student achievement in every study reviewed, Native students were behind their non-Native counterparts. Thomas *et al.* (1979) found that achievement levels are typically two or three years behind grade placement. Hunter and Stevens (1980) compared Native students with non-Native students in a Vancouver study and found that twenty percent of Native students repeated a grade, while only five percent of non-Native students did so. They found that the comparison students were more likely to receive an "A" or a "B" than the Native students in all subject areas in

the five grades included in the study (grades 1, 3, 5, 7 and 9). Conversely, the Native students were more likely to receive a “D” or an “E” than the non-Native students in all subjects throughout the five grades. Kehoe and Echols (1986) conducted a needs assessment in an elementary school in Vancouver. Approximately 75 percent of the student population were from an upper-middle class background. An examination of the reading comprehension scores for Native and non-Native children showed that the Native children, on average, were typically below the 20th percentile for their grade and the non-Native children were typically above the 65th percentile for their grade.

The Native children were typically one or two grades below their grade level in reading, while the non-Native children were typically above their grade level in reading comprehension. Improvement in reading comprehension is clearly an area of need for Native children in this school.

Drop-out Rates

More (1984) reports that the current drop-out rate of Native students in British Columbia is approximately 80 percent compared to a non-Native rate of approximately 36 percent. In that same study More found a decline in relative achievement from Grade 1 to Grade 4. Native students were further behind their non-Native counterparts in Grade 4 than they were in Grade 1. A study by the Department of Education in Saskatchewan (1985) showed the annual drop-out rate for Native students to be 43.2 percent compared to 15.0 percent for non-Native students. The cumulative drop-out rate between Grade 7 and 12 was 90.5 percent for Native students and 40.0 percent for non-Native students. It is significant that 60 percent of the drop outs were at least one year behind their age cohort when they withdrew. Drop-out rate does seem to be related to achievement and low achievement begins very quickly.

Sense of Belonging

Sense of belonging would appear to be a worthwhile program goal for schools with a multi-ethnic clientele. There are both films¹ and anecdotal data which suggest that a sense of belonging to one's school is an important element in a student's effective domain. Students who have dropped out of school frequently say they never felt they were a part of the school.

A review of research found no studies reporting a sense of belonging as a variable. A measure of belonging was developed by Kehoe (1986) and was used in the elementary school needs assessment (Figure 1). The

I am a _____ who
(Ethnic Group)

Never = 1
Seldom = 2
Sometimes = 3
Often = 4
Very often = 5

1. _____ participates in school social activities.
2. _____ tries to hide my ethnic background.
3. _____ feels awkward and out of place.
4. _____ participates in class discussions.
5. _____ feels that many of the teachers would like me to be somewhere else.
6. _____ would prefer not to be in school.
7. _____ "gives in" in a discussion with someone from another group.
8. _____ feels that facing the daily activities at school is a source of pleasure and satisfaction.
9. _____ feels that I don't belong because school is so different.
10. _____ is interested in the subject I have to take in school.
11. _____ feels lonely.
12. _____ believes that people talk about making you welcome, but when it comes right down to it, they don't really care.
13. _____ feels that the school really cares what I think.
14. _____ comes to school full of energy and enthusiasm for whatever lies ahead of me.
15. _____ thinks the school makes me proud to say that I belong to my group.
16. _____ feels that it is not my place to belong to the school.
17. _____ feels "left out," as if people don't want me around.
18. _____ spends time with pupils who are not in my ethnic group.

Figure 1: Sense of Belonging Measure

Sense of Belonging instrument has a standardized item Cronbach Alpha of .85. No tests for validity were conducted, although the results in Table 1 are in a predicted direction. There were no significant differences by grade, age, and gender with the Sense of Belonging score as the dependent variable.

Due to school and instrument considerations, only two classes, one in grade 5 and one in grade 7, were administered the Sense of Belonging instrument. Eighteen different ethnic groups were represented among the respondents. These groups were collapsed into the four categories seen in Table 1. Students of Chinese, Japanese and Korean descent are included in the Asian-Canadian category. The European-Canadian group is comprised of individuals from eight different countries in Northern, Central and Southern Europe. The mean scores by category show that the children of English and European descent report a greater sense of belonging than do the Native children. Their respective mean scores are 4.13 and 4.20 compared with the 3.38 mean score for the Native students. The magnitude of the difference between the means is statistically significant. Asian-Canadian students have a sense of belonging score of 3.83, which is higher than the 3.38 mean score for the Native students, but the difference is not statistically significant. Developing a greater sense of belonging to the school, on the part of Native children, may be an indirect means of reducing school disaffection and subsequent dropping out. Such a strategy should receive program consideration.

Table 1: Mean Score on Sense of Belonging Scale* by Ethnic Group

Ethnic Group	Number	Mean Score
Native Indian	13	3.38 ^{ab}
English-Canadian	20	4.13 ^a
Asian-Canadian	7	3.83
European-Canadian	8	4.20 ^b

* Higher mean scores indicate higher levels of sense of belonging.

^{ab} Group means which have identical letter superscripts are significantly different from one another at the .05 level. Statistical significance is determined through the use of oneway analysis of variance with Tukey's multiple comparison test.

Self-Esteem

There is some evidence that Native students have relatively lower self-esteem than non-Native students. Clifton *et al.* (1982) found that junior high school Native students rated themselves less positively on a semantic differential scale than did seven other ethnic groups. The needs assessment conducted by Kehoe and Echols (1986) used the Culture Free Self-Esteem Inventory developed by Battle (1981). With one exception there were no significant differences by grade, age, and gender on the general, social and academic self-esteem scales. The exception was that grade three students had significantly higher levels of academic self-esteem than did students in grade seven. Table 2 indicates that ethnicity is significantly related to self-esteem for these respondents. The data are from students in grades 3, 4, 5, and 7.

Table 2: Self-Esteem Mean Scores* by Ethnic Group

Ethnic Group	N	General Self-Esteem	Social Self-Esteem	Academic Self-Esteem
Native People	22	14.05 ^a	5.64 ^a	6.36 ^{abc}
English-Canadian	32	17.31 ^a	7.47 ^a	8.38 ^a
Asian-Canadian	8	14.88	6.38	8.37 ^b
European-Canadian	12	16.77	6.92	8.08 ^c

* Higher mean values indicate higher levels of self-esteem.

^{abc} Group means which have identical letter superscripts, *in the same column*, are significantly different from one another at the .05 level. Statistical significance is determined through the use of oneway analysis of variance with Tukey's multiple comparison test.

The General Self-Esteem X score for Native students, 14.05, is significantly different from the 17.31 X score by students of English descent and is also lower than the scores for the other two ethnic groups. The same pattern is seen in the column indicating the Social Self-Esteem scores. The Native students are significantly lower in Social Self-Esteem than the English-Canadian students. The Native student score is lower than the corresponding scores for the other two ethnic groups, but the differences are not statistically significant. The Native children have significantly lower

levels of Academic Self-Esteem. The differences between the Native score (6.36) and the scores for the English-Canadian (8.38), Asian-Canadian (8.37), and the European-Canadian (8.08) are all statistically significant. The development of higher self-esteem among Native children, particularly academic self-esteem, should be considered for program development. This sample of Native elementary students reports lower scores than non-Native students on general, social and academic self-esteem scales. Higher levels of academic self-esteem would likely follow from improved scores on teacher constructed tests. Although the relationship between general and social self-esteem and academic self-esteem is not well articulated, it seems reasonable to suggest that changes in the latter would have a positive impact on the former. Enhancing academic self-esteem on the part of Native children would seem to be a logical program target for schools and educators.

Attitudes

There is some evidence of non-Native students having negative attitudes toward Native students. A Winnipeg study (Clifton *et al.*, 1982) found that junior high school students from seven ethnic groups consistently rated Canadian Natives low on a semantic differential measure. Kehoe and Echols (1986) used two approaches to assess intergroup attitudes among the elementary school pupils. First they used a semantic differential to measure attitudes toward eight ethnic groups represented in Vancouver. In addition observations of Native and non-Native interactions on the playground were conducted. Table 3 shows the results of the semantic differential measure.

Scores on the semantic differential scale ranged from one, the most positive, to six, the most negative. Inspection of the overall pattern of responses seen in Table 3 reveals generally positive attitudes among all four respondent groups towards the eight groups evaluated. The most negative evaluations are by the Asian-Canadians toward Native Indians (2.95) and Indo-Canadians (2.97). The most positive evaluations are by English-Canadians (1.48) and European-Canadians (1.31) toward Japanese-Canadians. When comparing the total scores of the four groups of respondents it is apparent that the Native children have lower levels of acceptance (21.05) of other groups than do either the English-Canadian (16.54) and European-Canadian (16.67) children. These differences are large enough to be statistically significant. The Native children are less accepting of other groups in six out of eight comparisons, when their scores are compared to those of their fellow students. The exceptions are when

Table 3: Semantic Differential Scores* for Selected Ethnic Groups by Ethnic Identification of Respondent

Selected Ethnic Groups	Ethnic Identification			
	Native Indian N=23	English Canadian N=39	Asian Canadian N=12	European Canadian N=12
Chinese-Canadian	2.44 ^{abc}	1.87 ^a	1.75 ^b	1.69 ^c
Italian-Canadian	2.77 ^{ab}	2.23 ^a	1.91 ^b	2.01
Greek-Canadian	2.81 ^a	2.20	2.41	1.87 ^a
Indo-Canadian	2.37	2.72	2.97	2.35
French-Canadian	2.35 ^a	1.59 ^a	1.91	1.83
Native Indian	2.07 ^a	2.85 ^a	2.95	2.61
Japanese-Canadian	2.64 ^{abc}	1.48 ^a	1.90 ^b	1.31 ^c
German-Canadian	2.38 ^a	1.80 ^a	1.93	1.87
Total	21.05 ^{ab}	16.54 ^a	18.17	16.67 ^b

* Lower mean values indicate higher levels of acceptance or a more positive attitude toward the designated group.

^{abc} Group means which have identical letter superscripts, *in the same row*, are significantly different from one another at the .05 level. Statistical significance is determined through the use of oneway analysis of variance with Tukey's multiple comparison test.

Indo-Canadian and Native Indian are the target groups. Native children (2.35) and European-Canadian children (2.37) have similar and relatively positive ratings of Indo-Canadians, although none of the group ratings are statistically significant. Not surprisingly, the Native respondents have the most positive ratings of Native Indians, but it is mildly surprising that the rating is not more positive than it is. Although the overall magnitude of the scores in Table 3 are suggestive of tolerance and acceptance, the semantic differential ratings given the Native Indian group are among the lowest accorded the various groups. The data appear to indicate a relationship between being less accepting of others and being the target of unacceptance. The self-esteem scores, particularly the general and social dimensions, may also be part of this set of interactive influences.

The playground observation was carried out by four student teachers who were participants in the multicultural teacher education program at the University of British Columbia. They participated in a short training program, but no provision was made for checking inter-observer reliability. The four student teachers observed four to five pupils for approximately 15 minutes a day for 12 days. The observers were asked to answer the question "What is the nature and frequency of interaction between Native and non-Native students on the playground?" The data gathered appear to confirm the results of the attitude measure. Interactions were frequent and generally egalitarian. There were 73 observations deemed suitable for analysis. Of those interactions 47, or 64 percent, were described as positive interactions between Native and non-Native pupils. There were 4 instances of negative interactions with a non-Native child dominating a Native child and 8 instances of negative interactions with a Native child dominating a non-Native child. The observers were not asked to gather data on interactions within groups of similar ethnic makeup. However, in the course of making their playground observations the observers recorded three negative interactions within non-Native groups and two negative interactions within a Native group. There were other situations where a member of one group wanted to join the activities of another group, but were not invited to do so. The observers identified nine such events and labelled them as missed opportunities for interaction. In the absence of data from other playgrounds we have no way of knowing whether the frequency of negative interactions was high or low, or typical of an elementary school playground. We believe the overall pattern to be low in consideration of the number of observers and the duration of the observation period. On the basis of the playground observations and the semantic differential results it would seem that the attitudes of the pupils towards one another are generally positive. An implementation of an attitude change program would not appear to be warranted.

Pride in Heritage

A needs assessment for pride in heritage should also be a consideration. At the time of the needs assessment Kehoe and Echols could find no measure of pride in heritage in the literature. Since then they have developed a pride in heritage measure that is specific to Native activities (Echols and Kehoe, 1986). This measure was used as part of the instrumentation for the evaluation of the urban Native Adult Education Center in Vancouver.

The pride in heritage measure has particular utility in a needs assessment as both an information device and as a part of a follow-up evaluation

program. A number of schools implement multicultural curriculum programs that have pride in one's heritage as either an implicit or explicit goal. We believe the present instrument is a useful tool in evaluating such program goals. It may be modified for use with different ethnic groups. Neaman (1987) used an adapted version of the instrument in her evaluation of a curriculum unit on Jewish Canadians.

Needs Assessment and Program Variables

A needs assessment such as the one described here can serve a number of purposes, although we consider two of them as paramount. First, to compare urban Native people with non-Natives on the variables of achievement, attitudes, self-esteem and a sense of belonging provides valuable diagnostic information. This information is the first step which guides program planning and the allocation of scarce resources. Secondly, the data collected as part of the needs assessment becomes a baseline for subsequent comparisons. The effectiveness of program implementation can be monitored and evaluated over time. The instrumentation used with the needs assessment is not only a diagnostic tool but an evaluation tool as well.

On the basis of the needs assessment described, a decision was made to target improved achievement on standardized tests as the first priority of program development. The next step would be the identification of teachers and programs that successfully attain the goals declared to be important.

In a review of what we know about teaching effectiveness, Gage (1984) states that research has been conducted to determine whether actually changing teaching practices produces improved achievement, attitudes and behaviour on the part of students. Those studies with successful outcomes have a number of commonalities. First, the teaching practices were derived primarily from correlational studies. The teaching behaviours were not derived from some ideology or from a theory based on laboratory experiments or from philosophical reasoning. They were derived from relationships between specific teaching practices and student achievement or attitude or both. Moreover, the changes were brought about by straightforward efforts to educate more teachers to do what other, more effective, teachers had already been observed to be doing. Revolutions in teaching practices or major changes in school organization were not required.

There are several studies which report demonstrated relationships between classroom teaching processes and Native pupil outcomes. Kleinfeld (1974) found that teachers who combined close, warm relationships

with high expectations and standards obtained higher achievement results with rural Native children. Collier (1979) found that teachers, Native or non-Native, who used appropriate pace, flow and space had higher levels of participation than those who used inappropriate pace, flow and space.

The cognitive education program for adolescents known as Instrumental Enrichment (Feuerstein, 1980) has been shown to increase scores on the Raven's Progressive Matrices and on standardized achievement tests for Native children in the White River Public School district in Arizona. Scores on the Raven's Matrices increased from the 31st to the 54th percentile. Two semesters of Instrumental Enrichment moved mathematics test scores up six grade equivalents after two semesters of Instrumental Enrichment. Clearly there are programs in existence that are suitable for adaptation to local needs and circumstances. Such programs are likely to have a significant impact on the selected pupil outcomes.

One such program is the Kamehameha Early Program (KEEP), in Hawaii, which produces equivalent school achievement on standardized tests for low socio-economic status children who ordinarily fare very poorly in school (Jordan, 1984). There is ample evidence that, with in-service training and consultation, most teachers can learn to operate the program to the extent that Hawaiian children can achieve at norm levels. There are three central program features: (1) a culturally compatible, small group classroom organization; (2) interaction patterns between teacher-child and child-child which are based on a thorough knowledge of cultural differences and similarities; and (3) a set of social reinforcement and social control techniques which are grounded in cultural understanding. Arbess (1981) has suggested similar principles for the improvement of education for many Western Canadian Native students.

The essential success of the KEEP program is that it suggests that minority academic under-achievement is a problem that is school specific. The culture of the school is so pervasive that teachers and administrators often "don't see" structures and processes which contribute to the problem. As part of our needs assessment program (Kehoe and Echols, 1986), we followed, helped and observed 5 Native students through 10 half-day observation periods. These students do not read and resist efforts to do so. They employ an impressive repertoire of avoidance strategies in both the classroom and the learning assistance centre. It was equally apparent that the teacher, over our observation period, began to acquiesce to the avoidance strategies. The teacher was unaware of their avoidance behaviour and was unaware of her own behaviour which reinforced the success of the avoidance strategies.

Conclusion

It would appear that we are now in a position to discover the reasons for the low achievement scores for Native children and then generate teaching principles that might alleviate the problem. A review of the ethnographic research on the particular cultural group and more systematic observation would lead to better data on the behaviour management, sociolinguistic conventions, social organization and cognitive structures of the cultural group under investigation. This data should provide the basis for the formulation of teaching principles specific to the particular group. The effective implementation of the teaching principles should lead to higher levels of achievement among Native children.

More specifically we recommend that schools at the point of “doing something” about a school specific problem conduct a needs assessment which targets variables thought to be related to the problem. A second step is to arrange for unstructured observations in the school by “strangers” to the specific school structure. We believe these ethnographic observations to be an invaluable supplement to other forms of data collection. The technique provides for the unexpected and the unknown. The third step is to review programs and research germane to the identified problems and implement the required program. We have identified several studies that we consider to have promise as a basis for programs which target Native children. The last step is to monitor and evaluate the effectiveness of the program.

Note

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