

There are Doorways in These Huts: An Empirical Study of Educational Programs, Native Canadian Student Needs, and Institutional Effectiveness in British Columbia and Ontario, Canada

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The focus of this paper is on differences in approaches to Native Canadian education at post-secondary institutions in Canada that might influence success by Native Canadian college and university students. In the current study, characteristics of Native Canadian educational programming at 27 colleges and universities in British Columbia and Ontario, Canada's two most populous provinces, were examined. Existing institutional documents were used to determine the programs for Native students, as well as the numbers of Native students at each institution. Questionnaires completed by staff members from each institution were used to determine numbers of Native faculty, other institutional characteristics, and to identify the perceived major problems for improving Native education at each. The problems identified were factor analyzed, yielding seven categories of issues. These and the institutional characteristics were then tested for their ability to predict ratings of the quality of Native Canadian education provided by each college or university. The rating came from two Native Canadian professionals who were familiar with each of the schools. Two significant program characteristics predicted a substantial amount of the variation in quality ratings. One category of issues (problems) from the factor analysis was also a significant predictor of education quality ratings. Implications of these results for Native Canadian post-secondary education are discussed, as are needs for future research on the issues addressed in this study.

American Indian and Native Canadian communities need skilled members if they are to survive and thrive (James, 1998). Native youth have historically had, however, the highest elementary, secondary, and college dropout rates of any major racial group,

and this continues to be true today (Indian Nations at Risk Task Force, 1991; Quality Education for Minorities, 1990). In the U.S., about 85% of all Anglo adults have high-school diplomas or high-school equivalency degrees (Bachman, 1991). Among American Indian adults in the U.S., however, only about 60% have completed high school or an equivalency program (U.S. Bureau of Census, 1990). The situation in Canada is similar to that in the U.S. According to the 1996 report of the Royal Commission on Aboriginal Peoples (1996a), 57% of Native Canadian and Inuit adults have not graduated from high school. On the other hand, high-school graduation (or equivalency) rates among Anglo-Canadians are better than 90% (Statistics Canada, 1993). Post-Secondary dropout rates are also higher among the limited numbers of Native Canadians who make it to college than among their non-Native peers (Department of Indian and Northern Affairs, 1993; Royal Commission on Aboriginal Peoples, 1996a). According to the Royal Commission on Aboriginal People (1996a), only 3% of Native Canadians in the traditional college-age range are attaining post-secondary degrees, compared to about 28% of non-Native Canadians. In fact, while the Department of Indian Affairs and Northern Development reported a four-fold increase from 1981 to 1992 in the number of Native students involved in post-secondary programs it funded, the Royal Commission on Aboriginal Peoples reports that actual college graduation by Native Canadians increased by only 1% during that same period (Royal Commission on Aboriginal Peoples, 1996a).

Native Canadian communities have populations that are heavily demographically skewed toward youth. Dussault and Erasmus (1996), co-chairs of the Royal Commission on Aboriginal Peoples, reported that 37% of Native Canadians are under the age of 25. Native Canadian communities typically lack the economic, infrastructure,

land, and human- and material-resource bases to allow for independence and success (Jamison, 2001). Changing this situation requires that community members acquire a variety of skills that will allow them, in the complex modern world, to deal with crucial issues such as economic development, health, resource management, self-governance, and cultural preservation and enhancement (Crowshoe, 2001; Dussault & Erasmus, 1996; James, 1996; James, 1998). Thus, Native Canadian individuals and communities need education at both the secondary and post-secondary levels, and educational institutions in Canada need to make better choices about Native Canadian education. Only limited information seems to be available about the nature and effectiveness of post-secondary educational programs for Native Canadians, as compared to what is readily accessible in the U.S. For instance, the American Indian Science and Engineering Society publishes annually a “College Guide for American Indians” (American Indian Science and Engineering Society, 2000) that gives facts and figures about Indian education at 200 (in the most recent, 2000-2001 edition) colleges and universities in the U.S. There seems to be no equivalent comprehensive source of information about the quality of post-secondary programs in Canada. This paper is one effort to begin to remedy that situation.

Background on Native Canadian Education in Canada

Beginning in the 1800s and continuing at least until the 1970s, the British colonial government and the Canadian Federal government that took its place followed a policy of explicitly using education as a tool for attempting to force assimilation of Native Canadian and Inuit people and for attempting to eliminate traditional cultures and social organization patterns (Crowshoe, 2001; Morrissette, 1994; Royal Commission on

Aboriginal People, 1996b). Many people believe that that policy is still often implicitly followed today. Various Christian church groups also established schools for Natives, with conversion generally the major mission and education a poor second. In 1849, the first residential school for Native Canadians was established and soon there were hundreds from coast to coast. Attendance by Native Canadian children was made compulsory, and some level of formal education among Canadian Natives became more commonplace as the years passed, though education levels were still generally relatively low and highly variable across Native groups. Native students also experienced, in addition to coerced attendance and assimilationist policies, substantial bigotry and physical and sexual abuse in the residential schools (Royal Commission on Aboriginal Peoples, 1996b; Morrissette, 1994). This history continues to negatively color the perceptions of Native Canadian individuals and communities of mainstream education (Crowshoe, 2001; Morrissette, 1994).

Not until the 1950s did the Canadian government begin sporadic formal efforts to promote Native Canadian post-secondary education. Only in 1968 was a program established specifically to help finance post-secondary training and education for Native Canadians and even then the primary focus was on vocational training. In the 1970s and 1980s, the program was expanded, and in 1988, an Indian Studies Support Program was implemented to support development of special programs for Native Canadian education by higher education institutions (Department of Indian Affairs and Northern Development, 1993).

Canadian Government financial support for Native Canadian post-secondary education increased about eight-fold from the beginning of the 1980s to the early 1990s (Department of Indian Affairs and Northern Development, 1993). However, this

expansion in expenditures did not yield substantial increases in educational success by Native Canadian students. As was mentioned previously, actual graduation by Native students increased by only one percent during the period when funding for Native post-secondary programs was substantially increased. During most of the 1990s, Canadian Federal spending on all aspects of education declined, and the prospects are for further cuts in coming years. This, combined with the limited success that has been achieved with programs for Native Canadian post-secondary education to date, means that more and better information is needed about how programs should be configured to maximize their likelihood of success. The study reported here represents an effort to begin developing such information.

The Current Study

As described above, expenditures on Native Canadian post-secondary education spiked upward in the 1980s and early 1990s, but this was not mirrored by a corresponding spike in college graduation rates for Native students. An important reason for why substantially increased spending has not yielded corresponding increases in Native student educational success is that there has been little systematic effort to assess the effectiveness of programs for recruiting and retaining Native students. Such research is needed to inform programming and funding decisions so that financial support and institutional effort go toward effective initiatives. Little is known about the factors that make it more likely that college programs for Native students will achieve their goal of getting students through to graduation successfully. Even less is known about what types of college programs best assist meeting the goals and needs of Native Canadian communities. This study was intended to begin examining those issues. It focuses on

the characteristics of programs for Native Canadian education at 27 colleges and universities in the Canadian Provinces of British Columbia and Ontario. Expert ratings of institutional success at graduating Native Canadian students, as well as meeting the needs of Native communities, were obtained and compared to the characteristics of the programs for Native Canadian students across the 27 institutions. Ratings of institutional quality were provided by two Native Canadian educational professionals who were familiar with Native education, Native communities, and the Native-focused programs at the institutions in the sample. Because so little past quantitative research on this topic exists, the study had more of an exploratory approach than a hypothesis-testing one.

Method

Information was collected about programs for Native students at 27 colleges and universities in the provinces of British Columbia and Ontario. The institutions ranged from three small ones serving primarily Native students to several very large ones with small proportions of Native students. The smallest school had fewer than 200 students, the largest over 46,000 undergraduate, graduate, full and part-time students. Both personal and institutional anonymity was guaranteed to survey respondents.

Based on preliminary informal interviews with Native Canadian students, community members, and professionals, ten characteristics of institutions and their programs for Native Canadian students were selected as possible predictors of institutional effectiveness at educating Native students. The ten characteristics examined were: 1) Did the schools actively recruit Native students? (All schools claimed to be doing so and so this variable was not included in the regression analysis.) 2) Did

they provide support services specifically for Natives? 3) Did they have a dedicated position for the coordination of Native student recruitment and support and; 4) was that position full or part time? 5) Was the Native-student service coordinator, if any, a Native person? (As it turned out, the coordinator was Native at all schools that had one, so this variable was dropped from the analysis.); 6) What was the percentage of Native students to total student body size? 7) Was there a Native (aboriginal) studies program? 8) Were there aboriginal emphasis areas available in other (i.e., non-Native studies) degree programs? 9) How many Native faculty did the school have? and; 10) Was there an advisory council on Native education made up of members of the Native community (ies) in the area?

Three different approaches to gathering information about these program characteristics were employed: surveys sent to school officials, archival information from the Ministries of Education in the two provinces, and examination of catalogs, brochures and other documentation from the schools.

The survey included each of the 10 items listed above. It was sent to either the office of Native Student Services or the Vice-President for Student Services (or the closest equivalent at each institution) with the request that it be passed on for completion to the individual most knowledgeable about the institution's Native students and Native Student programs. No time limit was given for survey completion. Questions about program characteristics number 3, 6, 7 and 8 in the list given above were, where possible, confirmed from the institution's written documentation. Where written information was available, it was used in the data analyses.

Survey participants were also asked to respond to an open-ended question that asked what were the biggest problems hindering effective Native Canadian education at

the institution. Both the first author and a Native Canadian student coded both survey responses and program information from archival sources. Discrepancies in categorizations of particular responses were discussed until perfect agreement was reached by consensus on how to organize the responses into categories and assign a response frequency to each category.

Results

The numbers of individuals who listed each specific problem in response to the open-ended survey question asking about major hindrances to the success of Native Canadian students are shown in Table 1.

Table 1 (Problems Identified by Native Canadian Professional at the 27 Institutions as Hindering Native Canadian Education, and Factors Each Loaded on.

Table 1. Problems Identified by Native Canadian Professional at the 27 Institutions as Hindering Native Canadian Education, and Factors Each Loaded on.

<u># of mentions</u>	<u>Issue</u>
7	Instability/inadequacy of funding for Native Canadian programs at institution (Factors 1 & 2)
7	Need better respect for and partnerships/relations with Native Canadian communities (2)
6	Lack of funding for students (1,2,6)
6	Cross cultural training needed for non-Native students, staff & faculty (1,2,3)
6	No staff/procedure for tracking the progress of Native Canadian students (1)
5	Insufficient staffing (1)
5	Racism incidents & lack of admin. response (1,3)
4	Inability (lack of funding) to assess potential/current Native Canadian students (2,3,4)

- 4 High student attrition/Low student morale (1,2,5,6)
- 4 Need to rely on self-identification for tracking (1,3)
- 3 Failure to consult Native Student Services Coordinator on some Native issues (5,6,7)
- 3 Coordinator isolation as only Native person & perceived source of information on all Native issues (1,2,6)
- 3 Marginality of coordinators, especially when temporary and externally-funded employees (6,7)
- 3 Need for more Native Canadian emphases in “standard” degree programs (1,2,4)
- 3 Poor basic skills of entering students (2,4)
- 3 Native Canadian students’ lack of confidence in ability (4,6)
- 3 Potential students’ lack of info about careers, programs, services (2,4,5)
- 3 Poor general social conditions (especially substance abuse) in Native communities (1,3)
- 3 High Native elementary & secondary dropout (3,6,7)
- 3 More “trade” training needed (5,7)
- 2 Poor program fit with community needs (none)
- 2 Need better linkage of adult education with college (7)
- 2 Need for more training within Native Canadian communities (2,4,7)
- 2 Lack of or Ad hoc nature of tutoring (2)
- 2 Community pressure against success, especially for female students (3,5,6)
- 2 Student dislike of long period away from home/isolation of small numbers (1)
- 2 Lack of daycare (2,4,7)
- 1 Transportation problems for students (1,3,4,5)
- 1 Lack of availability of culturally-appropriate assessment tools (1,3)
- 1 Student fear of loss of identity (1,4)

- 1 Instructors’ attempts to limit Native Canadian focused projects (1,3)
- 1 Adoptee students who feel they don’t fit with Natives or others (none)
- 1 Family violence/sexual abuse & lack of institutional focus on dealing with their results (none)
- 1 Many potential Native students have time conflicts with class schedule (1,3)
- 1 Poor community leadership/planning (1,3)
- 1 Course focus behind times (none)
- 1 Need better understanding of how to market training to Aboriginal people (5,6,7)
- 1 Poor organizational chart regarding Native Canadian Student Office (none)
- 1 No public statement of support for Native education even when some is present (1,3)

The problems identified were then factor analyzed. Each institution was assigned either a 0 (not identified by the institutional respondent) or a 1 (identified by the institutional respondent) for each problem. Orthogonal Rotation was used. Seven factors with Eigenvalues of above 2.00 resulted. There was a substantial slope change in the scree plot after factor 7; the Eigenvalue for the next (8th) factor was 1.70. So, the scores for the first factors were computed for each institution. Those seven factors accounted for 60% of the variance in problem scores across institutions. Problems loading at .30 or greater on a factor were used to compute it; those with loading below .30 were not used. The items used in the computation of each factor are also shown (in parentheses) in Table 1.

A final component of the study was to obtain ratings of the effectiveness in educating Native students of each institution in the study. Ratings were done on a 6-point scale where 5 meant that the institution did an excellent job in Native Canadian education and 0 meant it did a poor job. Half-point intervals (e.g., 2.5, 3.5) were included on the rating scale to allow for more differentiation between programs. The raters were asked to base their ratings both on how good a job each institution did at recruiting and graduating Native students, and how well the education provided by each institution helped to meet the needs of Native communities. The two raters were Native Canadian professionals who were working or recently had worked in the area of Native higher education. Each was familiar with a large number of Native Canadian communities, Native Canadian students, and post-secondary educational institutions. A one-way ANOVA was used to test for differences in mean ratings between these two raters, and yielded no significant effect. Thus, the ratings from the two raters were averaged, and that average was used as the measure of institutional effectiveness at

educating Native students.

The characteristics of Native Canadian education programs at the schools in the sample were used to predict, using regression analysis, the ratings of quality of Native Canadian education provided by the schools. Dummy coding was used for the categorical characteristics, and raw numbers for the continuous characteristics (e.g., numbers of Native Canadian faculty members). All of the characteristics were entered in a single step. The results of the regression are shown in Table 2.

Table 2.

Regression of Program Characteristics on Rated Program Quality.

Characteristic	Beta	T-value
Native Student Support Service	.31	1.44*
Native Student Support Coordinator	.04	0.17
Coordinator Full vs. Part-time	-.02	-0.12
Percentage of Native Students	-.04	-0.22
Aboriginal Studies Program	.15	1.08
Aboriginal Faculty (Number)	.40	2.58**
Aboriginal Focus to		
Standard Degree Programs	.17	1.03
Native Canadian Advisory Board	.31	2.03**

Multiple $R^2=.78$, $F(8,18)=8.32$, $p<.001$.

* $p<.10$

** $p<.05$

We see in Table 2 that the numbers of Native Canadian faculty members at the

institutions were the single most powerful predictor of rated Native Canadian education quality. Presence of a Native Canadian Community Advisory Board was the next strongest predictor and the only other to reach significance at the .05 level. Institutions with such boards were seen as providing significantly better education to Native Canadian students. Finally, presence of a student support unit dedicated to Native Canadian students was a marginally (.10) significant predictor of rated program quality. In total, the full set of characteristics accounted for 78% of the variance in rated program quality, but the two significant predictors by themselves accounted for only 55% of the variance in ratings.

Next, the seven problem-/issue-factors derived from the questionnaires to respondents at each institution were entered into a regression equation as potential predictors of rated Native education quality at each institution. This yielded only one significant predictor, Factor 3. With a Beta of $-.51$ and a F-value of 8.74, this accounted for 26% of the variance in the ratings. Finally, the institutional characteristics were regressed on Factor 3 scores to see which characteristics might be accounting for the set of issues/problems Factor 3 represented. Only the variable for the presence or absence of disciplinary degree programs with a Native focus was significant, with an F value of 2.49, in this analysis. Its Beta weight was $-.446$, and it accounted for 20% of the variance in Factor 3 scores.

Discussion and Conclusions

Two of the ten program characteristics that were selected a priori for examination in this exploratory and heuristic study were found to be significant (and relatively

substantial) predictors of expert-rated institutional quality in educating Native Canadian students. Those two were the number of Native Canadian faculty members at an institution; and the presence or absence of a Native Canadian Community Advisory Board.

Lack of funding for programs and for students; problems with relations with Native Canadian communities; the need to provide cultural-sensitivity training for, and punish racism by, non-Native faculty, staff members, and students; and insufficient staff and inadequate procedures for assessing and tracking Native Canadian students were the issues most frequently targeted by the institutional informants in response to the open-ended question. The seven factors derived from the identified problems/issues all involved a mix of types of problems, some more so than others.

Factor 1, which had the most problems loading on it, also was the most heterogeneous in nature and is, therefore, difficult to classify. There were several items loading on it that dealt with institutional characteristics, but some others (such as one for negative conditions in Native communities) that did not. Factors 2 and 4 seemed to mainly deal with student characteristics and student needs. Factor 3, the only one to predict rated institutional success at educating Native students, seemed to primarily deal with mismatches between the institutions and students' cultures and home communities. Factor 5 had a mix of a few student-focused and a few community-focused items. Factor 6 was similar to 5, but added some educational institutional issues related to student support services. Factor 7 seemed to mainly have items related to societal or institutional structure and societal issues such as high Native dropout prior to high-school graduation.

That certain problems seemed to be linked together may indicate some common

causes behind the issues making up each factor. If such common causes could be identified and solutions to them developed and implemented, such solutions might deal with multiple problems at once. This would be a valuable avenue for future research. While only the third Factor of identified problems for Native education was a significant predictor of rated quality of Native Canadian education across institutions, the others (or their individual-issue components) are likely to be important in some respect. Studies employing other types of outcome variables might be better able to detect effects of Factors 1, 2, 4, 5, 6 and 7. Some ideas for such studies will be presented shortly.

In the regressions, presence or absence of an advisory board made up of Native Community members, numbers of Native faculty members, and how well institutions' systems fit with Native students' cultures and communities (Factor 3) were the significant predictors. Among the institutional characteristics available in this study, only presence or absences of a Native focus in mainstream (i.e., non-Native studies) degree programs predicted Factor 3 scores. Therefore, having Native-focused degree programs seem to help improve the fit of formal education with home culture and community. Since the degree-program variable accounted for only 20% of the variance in Factor 3, however, it is clearly not the only thing influencing institutional/culture-and-community fit. There is some coherence to the significant predictors. Community advisory boards, higher numbers of Native faculty, better fit between educational institution systems and Native students' home culture/community, and Native- focused degree programs all seem relevant to effectively integrating Native identity and Native communities with mainstream education.

Some caution is needed in interpreting the regression results. First, the predictors tended to be significantly correlated with one another, rendering the specific observed

magnitude of effect for each single predictor somewhat suspect. Secondly, other predictors not included in the regression probably also tend to be correlated with the characteristics that were examined. For instance, much of the Canadian Federal Government's support for Native Canadian education is channeled through Band Councils. So, we might expect that Native Canadian students at schools with community advisory councils would also tend to receive better financial support since their bands would be more likely to be actively involved with the educational process. This might account for some of the strong effect of a community advisory council observed in the first regression analysis.

Interestingly, the majority of the predictors were not significant even though it seemed subjectively that they would be likely to be important. This did not seem primarily due to simple intercorrelation of predictors such that those that did appear to be significant were simply standing in for the rest. For instance, the percentage of Native Canadian students at an institution was not a significant predictor. As a continuous variable, though, it should have had some statistical advantage in gaining significance over the dichotomous (i.e., yes/no) predictors that were significant predictors of the problem. The non-significance of percentages of Native students is conceptually sensible, though, given that the institutions with the biggest percentage of Native Canadian students tended to be small ones that also offered relatively limited degree programs and student services. Nonetheless, efforts to disentangle effects of the predictors used here with each other and with other factors should be made in future research.

Despite some methodological concerns with the current study, its results provide the best information about Canadian post-secondary programs for Native Canadians

available to date. Based on these results, it seems that institutions that involve Native Canadian communities in education, hire Native Canadian faculty members, and lend Native-focus to mainstream degree programs are most likely to succeed in educating Native Canadian students. Forming community advisory boards and otherwise attempting to increase input from Native Communities should require minimum new financial commitment. On the other hand, hiring additional Native faculty and creating more Native-focused tracks within degree programs would require new dollars or reallocation of existing dollars. Band Councils should use their higher education funds to reward institutions that are effective for Native students and Native communities, and as leverage to elicit change in institutions that are not effective. This is currently done in a non-systematic way. Were greater information about Native student achievement at different institutions readily available, it could be done more systematically. Perhaps the Canadian Federal Government should collect and make easily available yearly data on graduate and dropout rates for Native students at different institutions; as well as levels of community satisfaction with the products (i.e., graduates; faculty and student service to community) of various educational institutions.

Availability of Native faculty is limited by the very failure of educational institutions to graduate most Native students that hiring additional Native faculty might help address. Perhaps this deficit could be addressed through means such as peer teaching until Native graduation rates improve and Native faculty numbers improve. Native-focused resource materials, and guest lectures by Native individuals who have course-relevant knowledge and experience if not the academic credentials to be hired as regular faculty is another way to address this need. Native-focused degree programs are feasible and might yield major improvements in community relations and Native

student recruitment and graduation. For instance, Common and Hayward (1993) report on a successful (in terms of increasing Native community and Native student involvement) effort to incorporate Native community health needs and Native cultural issues into post-secondary health education in Ontario. Similar approaches in other disciplines might yield equivalent benefits.

Future studies will ideally have a much larger sample size and somehow measure all of the issues identified in Table 1 for all programs so that their independent effects can be assessed. In addition, the quality ratings could, themselves, use improvement. Use of a broader range of raters would be preferable—for instance, some raters who were students, some who were Native Canadian community leaders, and some who were Native Canadian professionals. This would access the different perspectives these groups are likely to have and the evaluative criteria that they are likely to use in judging quality. The difficulty with using this approach, however, would be to find raters in some of the categories (e.g., Native students) who are familiar with all of the institutions being studied. Another valuable approach would be to use objective measures of Native Canadian education such as graduation and dropout rates at the different institutions. This is difficult, though, for the following reasons: some schools do not track statistics on Native Canadian students, many schools rely on self-identification of Native Canadian students if they do keep statistics, and many would likely be reluctant to give access to the relevant records even if they have them. It would also be hard to capture with this approach, issues such as the value of the skills students are being trained in for communities, and students' ability to translate their training to life outside of the educational institution. Rating approaches are better at getting at these types of things. Studies employing both types of measures would provide a more

complete picture than ones relying on only one type.

Another issue that future research could look at profitably would be how characteristics of Native Canadian students, their families, and communities might predict individuals' educational success. In Table 1, for instance, we see issues such as poor basic skills among students on college entry, community pressure against educational success by females in particular, and familial/social conditions in communities mentioned as reasons for student problems with educational attainment. Direct assessment of such a factor for individual students and examination of their relation to outcomes such as degree completion, grade point average, and choice of major would be of interest.

Most of the preceding discussion highlights issues for mainstream educational and governmental policies and systems. Band governments, provincial and national tribal organizations, and other community groups, though, also need to make Native Canadian education and educational reform a priority and pursue it with vigor. As the items in Table 1 show, there are many issues in Native Canadian communities that need attention, and many forces that tend to divide communities internally and limit coordination among communities. Education is so fundamental to the future of communities and individuals, though, that it needs to receive priority over other issues and be worked on collaboratively within and across communities. Otherwise all is likely to be lost.

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