A review of 15 case histories and 3 general studies reveals major deficiencies in research efforts to determine the quality of education for Native Indian students in Canada. Studies lack definition of the key term "quality of education," overuse provincial standards to indicate quality, and fail to establish the relationship between community goals and quality of education. Studies reviewed also failed to include existing long-term successful schools, focused on narrow issues, and neglected community involvement after the planning stage. Reliable studies will evaluate the quality of education according to preparation for total living, facilitation of free life and work choices, and enabling of individual advancement. They will include promotion of identity and self-worth, completion of high school, school achievement, and Indian self-determination as product variables and Indian philosophy and cultural relevance, quality of curriculum and instruction, facilities, and teacher preparation and inservice training as process variables. Improving the currently poor quality of Indian education is contingent on research which establishes concrete standards, follows through with high-quality study implementation, distinguishes between education and schooling, develops specific recommendations based on study outcomes, and relinquishes heavy reliance on community surveys. (MM)
QUALITY OF EDUCATION OF
NATIVE INDIAN STUDENTS
IN CANADA:
A REVIEW OF RESEARCH

Presented to the
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QUALITY OF EDUCATION OF NATIVE INDIAN STUDENTS IN CANADA
A REVIEW OF RESEARCH
Arthur J. More

INTRODUCTION

The general quality of education of all Canadian school systems has come under increasing public scrutiny in the past decade. Accusations of declining achievement levels among high school graduates have been hotly debated in provincial legislatures and local school board meetings. The increasing costs of education and accusations of declining cost effectiveness have also been a significant part of these debates.

However, these debates are not to be confused with current concerns for the quality of education of native Indian students. One major difference between the debates about the quality of school systems in general and the quality of Indian education in particular is that academic achievement levels of Indian students are not declining but they continue to be disastrously low. For example, the high school completion rate among Indian students has increased in the past few years but remains less than one quarter of the national rate (Indian Conditions, 1980); average achievement levels two or more years behind grade placement are not uncommon (Thomas, et al., 1979, pp.16-19). Another significant difference is that improvements in the general quality of Canadian education may be important, but massive
improvements in the quality of education of Indian students are absolutely essential to the success of the current drive for Indian self-determination and self-government (Penner, 1983).

This paper is a response to the increasing interest and concern by Indian people, government agencies and other educators for the quality of education of Indian students in Canada. This interest and concern has led to a spate of evaluations of schools and programs which enroll Indian students. It has also led to a number of studies of the process of evaluating the quality of Indian education. There is a need to compile and review these evaluations and studies, to identify gaps and inconsistencies among them, to assist researchers to develop more effective methodology, to assist in program development and to improve teacher preparation and in-service.

PURPOSE

The purpose of the present study is to review recent evaluations and case studies related to the quality of education of native Indian students in Canada.

This paper reviews a very broad range of studies. However it concentrates on 15 case studies of actual schools and programs, and three general reports on quality of Indian education. The case studies were selected on the basis of the availability of written reports and the degree to which they represent important aspects of evaluation of quality of Indian education.
TABLE 1

Studies reviewed for this paper, showing location, investigators, date and type of school

<table>
<thead>
<tr>
<th>Location of Study</th>
<th>Investigator(s)</th>
<th>Date</th>
<th>Type of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandra, Alta (E)</td>
<td>Lane</td>
<td>1982</td>
<td>1 Federal, 3 Provincial, 2 separate</td>
</tr>
<tr>
<td>Alexis, Alta (E)</td>
<td>R &amp; F Consulting</td>
<td>1983</td>
<td>1 Federal, 3 Provincial</td>
</tr>
<tr>
<td>Alkali Lake, B.C.(D,I)</td>
<td>Johnson</td>
<td>1984</td>
<td>1 Band-operated</td>
</tr>
<tr>
<td>Bella Coola, B.C.(E)</td>
<td>Dick et al</td>
<td>1983</td>
<td>1 Band-Operated</td>
</tr>
<tr>
<td>Chapel Island, N.S.(E)</td>
<td>Hamilton &amp; Owston</td>
<td>1983</td>
<td>1 Band-Operated</td>
</tr>
<tr>
<td>Hobbema, Alta (E)</td>
<td>Alberta Education</td>
<td>1981</td>
<td>2 Federal</td>
</tr>
<tr>
<td>Klemtu, B.C.(D)</td>
<td>More</td>
<td>1983</td>
<td>1 Band-Operated</td>
</tr>
<tr>
<td>Lilloet, B.C.(E)</td>
<td>Hebert</td>
<td>1983</td>
<td>1 Provincial (Indian Language Program)</td>
</tr>
<tr>
<td>Manitoba (E)</td>
<td>Kirkness</td>
<td>1978</td>
<td>8 Federal, 13 Provincial</td>
</tr>
<tr>
<td>Nisgha School District (E)</td>
<td>More et al</td>
<td>1980</td>
<td>3 Provincial (Bicultural/Bilingual Program)</td>
</tr>
<tr>
<td>Northwest Territories (E)</td>
<td>Special Committee</td>
<td>1982</td>
<td>All NWT Schools</td>
</tr>
<tr>
<td>Okanagan/Merritt, B.C. (E,I)</td>
<td>More</td>
<td>1984</td>
<td>Provincial, Band-Operated and Parochial Schools (12 Bands, 8 School Districts)</td>
</tr>
<tr>
<td>Tobigue (E)</td>
<td>Hamilton &amp; Owston</td>
<td>1982</td>
<td>1 Federal</td>
</tr>
<tr>
<td>Saddle Lake (E)</td>
<td>Thomas et al</td>
<td>1979</td>
<td>1 Band-Operated</td>
</tr>
<tr>
<td>Vancouver (E)</td>
<td>Hunter &amp; Stevens</td>
<td>1980/1981</td>
<td>1 School District</td>
</tr>
</tbody>
</table>

(D) Descriptive Study
(E) Evaluative Study
(I) Study In-Progress, not completed at this writing
The location, investigators, date and type of school for the 15 studies are given in Table 1. Many of the studies were evaluations of specific schools (Dick et al, 1983; Hamilton & Owston, 1982 and 1983; Thomas et al, 1979) or groups of schools (R & F Consulting, 1983; Kirkness, 1978; Lane, 1982; More, 1984). Other studies were descriptive rather than evaluative (Johnson, 1984; More, 1983). Only one of the 15 studies was termed a "quality of education study" by its author. However all the case studies relate to evaluation of the quality of education and illustrate many of the problems and outcomes of carrying out such evaluations.

The remainder of this paper is divided into four sections: (1) Quality of Education - the meaning of the term; (2) Methodology, which discusses the methodologies of quality of education studies; (3) Findings, which summarizes the findings; and (4) Discussion.

QUALITY OF EDUCATION - MEANING OF THE TERM

1. Lack of Definition

The term "quality of education" is used with increasing frequency by those involved with the education of Indian students. However it was actually defined only once in all of the literature reviewed by this writer. Of the 15 case studies one specifically defined quality of education; six implied a definition in terms of provincial standards and community goals combined; five implied a definition solely in terms of provincial standards; one was unclear, although it
used a great deal of community input; and in two studies a definition, stated or implied, was not appropriate. Only two studies attempted to link quality of education to community goals for education.

A recent paper prepared for the Department of Indian Affairs and Northern Development (DIAND) stated that "the quality of First Nations Education can be defined in many ways" (Watson & Gooderham, 1984, p.11) but failed to provide any of the definitions. The authors concluded only that "The 'bottom line' of all this is community satisfaction. Are the parents and the students themselves satisfied that the school is providing the highest quality instruction that can reasonably be expected?" (ibid, p.11).

In the recent discussion paper Indian Education Paper - Phase I, the DIAND chose not to define quality of education. Instead they proposed guiding principles which are "... policy boundaries or limitations which serve to give meaning to the policy on education" (DIAND, 1982 p.16). The proposed guiding principles, as revised most recently, are:

Quality of Education

1. Indian education strengthens the learner's cultural identity.
2. Indian education helps the students develop what are considered the basic learning skills such as language and number work.
3. A basic goal of education for Indians is that each student should have the opportunity to achieve to the limit of his or her capabilities.
4. Indian education contributes to the development of the community, helping it to meet its social and economic goals. It provides skilled workers for jobs in the community and increases its members' skills so that they can increase their chances for employment.
5. The quality of Indian education programs is in line with Canadian provincial standards, and the department is responsible for ensuring this.

6. The standards used for construction and maintenance of Indian schools are based on those used in the provinces (DIAND, 1983).

The first five of these guiding principles relate to the goals of most Indian communities. The final two set provincial standards as standards of quality for Indian education. Notwithstanding the statement of guiding principles, the "Phase I Paper" operationally defined quality of education, by implication, solely in terms of provincial education systems (DIAND, 1982, pp.17-19, 21, 33, 42).

Three concerns related to the meaning of quality of education arise from these studies:

(1) lack of definition of the term;

(2) overuse of provincial standards as indicators of quality, regardless of the appropriateness of the standards;

(3) lack of relationship between community goals and quality of education.

2. Definition of Quality of Education

In this paper the definition used by the author in the Okanagan/Nicola Quality of Education Study (More, 1984), is employed. Quality of education is the degree of relationship between:

(a) the educational goals and objectives of the Indian communities and

(b) student achievement in its broadest sense (More, 1984, p.1).

The degree of relationship, or "goodness of fit", between goals and achievement is the essential ingredient. This definition is
designed to overcome the three concerns listed above. It particularly provides for a direct link between quality of education and community goals for education. Figure 1 presents a model for evaluating quality of education based on this definition.

The clearest statement of the educational goals of Canadian Indian people is contained in the National Indian Brotherhood policy paper Indian Control of Indian Education:

- Our aim is to make education relevant to the philosophy and needs of the Indian people. We want education to give our children a strong sense of identity, with confidence in their personal worth and ability. We believe in education:
  - as a preparation for total living,
  - as a means of free choice of where to live and work,
  - as a means of enabling us to participate fully in our own social, economic, political and educational advancement (1973, p.3).

This statement of educational goals provides the standard for determining quality of education in this paper. This standard is only appropriate to an individual Indian community if the goal statement is appropriate. To be most useful a series of specific local or regional educational objectives would have to be developed from this goal statement by a group of Indian parents and educators.

METHODOLOGY

1. Reasons for the Studies

The underlying reasons for carrying out most of the case studies reviewed for this paper were serious concerns for lack of
Figure 1. Model for evaluating quality of education

**Cultural Heritage**

**Contemporary Ways of Life and Values**

**Educational Goals of the Indian Communities**

1. Specified in a measurable form wherever possible
2. Separated into product and process objectives to parallel achievement (product) and process variables.

**Background Variables**
1. Community
   a. Cultural
   b. Economic
   c. Social
   d. Geographic
2. Mobility
3. Self-Esteem
4. Learning
5. Hearing
6. Vision
7. Perceptual-Motor Skills

**Process Variables**
1. Community Perceptions of the education process
2. Governance (local, etc.)
3. Instruction
   a. Teaching Processes
   b. Teacher Skills
   c. Teacher Preparation
4. Curriculum including Native Indian Content
5. Administration
6. Facilities
7. Teacher perceptions of the education process
8. Support Factors
   a. Special Education
   b. Community Programs

**Achievement in its Broadest Sense (Product Variables)**
1. Community perception of the products of education
2. Standardized Achievement Tests
3. Teacher Tests
4. Drop-outs, Graduates
5. Age/Grade Deceleration
6. Attendance
7. Type of Program Placement
8. Teacher Perceptions of the Products of Education
9. Grades
10. Self-Esteem
11. Student Perceptions of the Product of Education
12. Employment Rate and Type

1Communities refer to geographic communities such as Reserves, or the Indian people making up Indian communities in towns and cities.
success of students. In some cases there was a specific problem (Hamilton & Owston, 1982; Thomas et al, 1979). In other cases the concern was more general (Hunter and Stevens, 1980; Alberta Education, 1981). In six of the 15 studies a new program had completed a year or more of operation and a formative evaluation was appropriate (e.g. Dick et al, 1983; Hebert, 1983; More et al, 1980). In three cases the question of Band takeover of the schools was one of the questions to be answered by the study (Lane, 1982; R & F Consulting, 1983; Hamilton & Owston, 1982). In one case the study was to develop and test a design for an evaluation framework (Kirkness, 1978, p.53) as well as evaluate the education of a group of Indian students.

None of the studies involved a school or program which had been considered successful over a long period of time. Such studies would have been a valuable addition to this analysis. Indeed any province-wide or nation-wide study must include them. However it is this writer's experience that, although long-term successful situations exist, they are seldom evaluated.

2. Type of School

The studies involved the full range of schools attended by Indian students: Band-operated, Federal, Provincial, Territorial and Parochial. All the studies, except one, had the Indian students as the main focus and Non-Indians were included only for comparative purposes. The exception was the Northwest Territories study which focussed on the total educational system - although Indian and Inuit
student concerns were a very significant part of it (Special Committee on Education, Northwest Territories Legislative Assembly, 1982).

Of the fifteen studies, five dealt with Band-operated schools only; two dealt with federal schools only; three dealt with provincial schools only (although one provincial system - Nisga'a - is Band-controlled); four dealt with a combination of school types; and one dealt with Territorial schools only.

3. General Design

The general design of the studies usually involved four steps: (1) consultation with community in designing the study; (2) collection of data on a series of process variables (e.g. curriculum, instruction, learning styles) and product variables (e.g. test results, drop-out numbers); (3) subjective evaluation of results; and (4) development of recommendations.

Community involvement in steps 1 and 2 was usually significant. The community involvement was channeled through the local Educational Authority, the Band or a Steering Committee. However community involvement in steps 3 and 4 was usually minimal, consisting most frequently of responding to a draft report written by the investigators. The opportunity for in-depth community involvement in the final two steps was overlooked in most cases.

The evaluation of results and the development of recommendations was seldom done in a clearly defined manner or according to a predetermined model. In particular, the standards against which the results were compared were only vaguely described, if at all.
Provincial standards were often referred to but seldom used with any specificity. In most cases the investigators relied on their varied professional experiences to carry out this task.

The result is that in most studies the reader is usually left with the questions "What did this study mean by quality? What were the standards?" In addition the reader is often left with a vague notion that if only Federal and Band-operated schools followed Provincial standards, quality would be achieved. But evaluators usually dash this notion with their concerns about cultural irrelevance in provincial curricula, instruction and testing.

One way of dealing with this situation as illustrated in Figure 1, is for the investigator to work with the community to establish a set of educational goals of the Indian community. From these goals, a set of specific educational objectives, is generated. It is against these educational objectives that the data and results are compared by the investigator and community representatives. The Acwaksaka School at Bella Coola has developed such a set of goals and objectives (Dick et al, 1983, pp.5-7). Recommendations for changes in the education process are then developed from this comparison of process variables and product variables with educational goals and objectives.

One problem of this approach is the difficulty and time involved in developing goals and objectives. The usual door-to-door survey is insufficient. A series of time-consuming discussions, meetings and workshops with all concerned parties would be necessary. However if the standards of comparison for determining quality of education are
To be clear, and if these standards are to come from the Indian community, the additional effort is necessary. This writer is currently involved in a quality of education study in which 12 Bands are wrestling with the difficulties of developing their first statements of educational goals and objectives and is well aware of the difficulties, as well as the potential benefits, of this approach (More, 1984).

4. Variables

The studies have used a large number of variables, although there is a set common to most of the studies. The variables may be grouped into three types:

(1) product variables, which are concerned with the products of education, such as marks, test results and drop-out rates;

(2) process variables which are concerned with the educational process such as instruction, curriculum and facilities, and

(3) background variables which are concerned with factors which exist prior to or separate from the educational system, such as learning style, socio-economic conditions, cultural variables.

If the "process" of education is effective, particularly if it is appropriate to the "background" variables, then the "product" should be of high quality.

This grouping of variables is an essential ingredient in the model proposed by this paper. Table 2 lists most of the variables and their frequencies as used in the fifteen case studies reviewed for this paper.
### TABLE 2
Variables and their frequencies of use in the studies reviewed for this paper

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Variables</strong></td>
<td></td>
</tr>
<tr>
<td>1. Community perceptions (of the product)</td>
<td>15</td>
</tr>
<tr>
<td>2. Standardized achievement tests</td>
<td></td>
</tr>
<tr>
<td>a. Reading</td>
<td>17*</td>
</tr>
<tr>
<td>b. Math</td>
<td>7</td>
</tr>
<tr>
<td>3. Drop-outs</td>
<td>10</td>
</tr>
<tr>
<td>4. Age-grade deceleration</td>
<td>8</td>
</tr>
<tr>
<td>5. Attendance</td>
<td>7</td>
</tr>
<tr>
<td>6. Type of program placement</td>
<td>5</td>
</tr>
<tr>
<td>7. Teacher perceptions (of the product)</td>
<td>5</td>
</tr>
<tr>
<td>8. Graduates</td>
<td>3</td>
</tr>
<tr>
<td>9. Marks</td>
<td>3</td>
</tr>
<tr>
<td>10. Self-esteem</td>
<td>3</td>
</tr>
<tr>
<td>11. Student perceptions (of the product)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Process Variables</strong></td>
<td></td>
</tr>
<tr>
<td>1. Community perceptions (of the process)</td>
<td>13</td>
</tr>
<tr>
<td>2. Instruction</td>
<td>13</td>
</tr>
<tr>
<td>3. Curriculum</td>
<td>11</td>
</tr>
<tr>
<td>4. Cultural content</td>
<td></td>
</tr>
<tr>
<td>a. Indian language</td>
<td>6</td>
</tr>
<tr>
<td>b. Indian culture</td>
<td>8</td>
</tr>
<tr>
<td>5. Administration</td>
<td>8</td>
</tr>
<tr>
<td>6. Facilities</td>
<td>7</td>
</tr>
<tr>
<td>7. Teacher perceptions (of the process)</td>
<td>7</td>
</tr>
<tr>
<td>8. Support factors</td>
<td></td>
</tr>
<tr>
<td>a. Special education</td>
<td>6</td>
</tr>
<tr>
<td>b. Counselling</td>
<td>4</td>
</tr>
<tr>
<td>9. Enrolment</td>
<td>6</td>
</tr>
<tr>
<td>10. Attendance</td>
<td>6</td>
</tr>
<tr>
<td>11. Student perceptions (of the process)</td>
<td>6</td>
</tr>
<tr>
<td>12. Motivation</td>
<td>5</td>
</tr>
<tr>
<td>13. Non-Indian community perceptions</td>
<td>3</td>
</tr>
<tr>
<td>14. Teacher qualifications</td>
<td>2</td>
</tr>
<tr>
<td><strong>Background Variables</strong></td>
<td></td>
</tr>
<tr>
<td>1. Community factors</td>
<td></td>
</tr>
<tr>
<td>a. Cultural</td>
<td>6</td>
</tr>
<tr>
<td>b. Economic</td>
<td>4</td>
</tr>
<tr>
<td>c. Social</td>
<td>4</td>
</tr>
<tr>
<td>d. Geographic</td>
<td>4</td>
</tr>
<tr>
<td>2. Learning Styles</td>
<td>4</td>
</tr>
<tr>
<td>3. Mobility of students</td>
<td>4</td>
</tr>
<tr>
<td>4. Self-esteem</td>
<td>2</td>
</tr>
<tr>
<td>5. Hearing</td>
<td>2</td>
</tr>
<tr>
<td>6. Vision</td>
<td>2</td>
</tr>
<tr>
<td>7. Perceptual-motor skills</td>
<td>2</td>
</tr>
<tr>
<td>8. Intelligence tests</td>
<td>0</td>
</tr>
</tbody>
</table>

*Frequency is greater than the number of studies because some studies used more than one standardized measure of reading.*
4.1 Product Variables.

Community perceptions may relate to the products of education or to the processes of education. Community perceptions as a product variable appeared in every case study.

Other frequently used product variables were standardized achievement tests (particularly CTBS), reading (particularly Gates-McGinitie), drop-outs, age/grade deceleration and attendance.

The use of standardized achievement test measures was often qualified by concerns about the cultural relevance of the content and the bias inherent in the norms. In some cases development of Indian norms was recommended (e.g. R & F Consulting, pp.30-31). This writer supports the concerns about the cultural relevance of such standardized achievement tests as the Canadian Test of Basic Skills. This is particularly important for Band-Operated schools in which the goals and curriculum may vary considerably from those schools on which the test content was based. However it is also possible that the usefulness of such tests may be downplayed too much in situations in which the Indian parent's educational goals and the curriculum they prefer are virtually the same as those of the non-Indian community. This writer also questions support for the concept of national or provincial Indian norms for such tests when there are such great differences between Indian communities and between curricula of Band-operated schools. In order for a standardized test to be accurate for Indian students it must be relevant to the instructional goals of a particular school or group of schools. And the norms
must be based on the same school or schools.

In some studies the drop-out rate included only students who left during the school year, September to June (e.g. Kirkness, 1978, p.70). Since many, possibly most, drop-outs occur during the summer months the in-school drop-out rate has little value.

Self-esteem was included as a product variable in three studies, but in only one was it measured precisely (Hebert, 1983, p.10). Hebert's study showed a possible positive relationship between enrolment in an Indian language course, self-esteem and achievement.

4.2 Process Variables.

The process variables used most frequently were community perceptions of the education process, instruction (although usually not measured precisely) and curriculum.

There were frequent references in most studies to the problem of cultural relevance of the curriculum. However it was only a specific variable in six studies and then only generally observed. None of the studies distinguished between relevance to contemporary Indian cultures as discussed by La Roque (1975) and relevance to traditional Indian cultures. One is usually left with the impression that the reference is only to traditional Indian cultures.

Most of the recommendations from the case studies are for changes in the education process, that is they relate to the process variables. However careful analysis of the links between process variables/product variables/educational goals, was not a part of the development of recommendations. One method of overcoming this problem
could be based on the relationship illustrated in Figure 1.

4.3 Background Variables.

Background variables are used least frequently, possibly because they are perceived to interact only indirectly with the quality of education. However evaluation of educational quality must include an assessment of the degree to which the education process is being adapted to the background variables.

Learning style is a background variable which is often overlooked, largely because of a dearth of research with Indian students. Only two studies actually used learning style instruments to investigate this type of variable.

The Okanagan/Nicola study is showing some potentially exciting learning styles results, particularly related to beginning reading (More, 1984). However results are not complete at this writing.

Background variables related to hearing and vision though seldom used, have useful potential. At Alexander Reserve, 22 of 48 children were found to have some degree of hearing impairment (Lane, 1982, pp.45-46).

5. Other Quality of Education Methodology Studies.

Three recent papers have studied the methodology of quality of education studies and recommended changes in the educationa process for Indian students (Watson, 1983, Vol.3; Watson & Gooderham, 1984; Assembly of Manitoba Chiefs, 1984).

One paper deals solely with quality of instruction and "...does
not attempt to answer the question 'What is a quality education?' (Watson, 1983, Vol.3, p.1). It provides a useful discussion of common methods of evaluating student achievement. This is followed by a report on existing practices in evaluating quality of instruction, based on a questionnaire sent to all Indian schools in Canada (ibid, pp.19-53). The study found that about three-quarters of Indian schools use standardized achievement tests, 53% used the CTBS and 21% used the Gates-McGinitie Reading (ibid, pp.21-24). The study also found that reading, writing and attendance problems seriously affect the accuracy of attempts to measure student achievement (ibid, pp.40-41).

The Watson and Gooderham report includes a discussion of standards of quality of education (1984, pp.10-14). They point out that those who favour the use of standards agree that they are required for effective planning, implementation, accountability, and for determining whether a student has attained at least the minimum level required to move on to a higher level skill. Those who oppose uniform standards argue that they deny individual differences and that they are usually inappropriate, due in part to differences in language and culture (ibid, p.10). The report adds that, in practice, standards for Indian schools usually bring together "norms" of many kinds including community standards and expectations, school standards, teacher experience, developmental norms and test norms (ibid, p.11).

The report also refers to a high level of concern among teachers that the standards of standardized achievement tests are not appropriate to Indian pupils. This writer is concerned about the
misconception that standardized achievement tests set standards. The norms of standardized achievement tests permit a comparison with the "average" non-Indian Canadian of a particular grade level, but they do not set standards. There is a misconception that the grade placement score used by CTBS and other standardized tests is a standard rather than simply an average score for a specific group of students. This misconception might be reduced by use of raw scores, or even percentiles (ibid, pp.11-14).

Most standardized test scores have little diagnostic value because any one score, even on a sub-test, covers a wide range of skills. Standardized tests which provide a detailed breakdown of results, accompanied by specific remedial and developmental aids, are far more useful than the general standardized tests in use. Such detailed tests, for example the Metropolitan Reading Instructional Battery, allow the teacher to concentrate on those specific skills which relate to the objectives and curriculum of the particular school and provide teaching aids to assist.

Watson and Gooderham also provide an extensive analysis of curriculum practices and issues including curriculum modifications, role of the Indian community, Native language instruction and second language instruction (ibid, pp.15-30). They also summarize Federal and provincial data on teacher qualifications, recruitment and support.

The report of the Assembly of Manitoba Chiefs is primarily a detailed proposal for significant restructuring of Indian education in
Manitoba to achieve quality education while retaining local control and flexibility. The report also summarizes findings of other studies of product and process variables related to Indian education in Manitoba. The report is highly significant in that it proposes a basis for providing quality education by different processes appropriate to the needs and desires of individual Indian communities (Assembly of Manitoba Chiefs, 1984).

FINDINGS

Most of the case studies reported the result on a series of product and process variables. These results were then subjectively evaluated by the investigator and recommendations were developed.

For the present paper we return to the operational definition of quality of education which emphasizes the relationship between educational goals and student achievement. It is difficult to analyze the relationship in this paper because a detailed statement of educational goals and objectives of Canadian Indians is not available. There is, however, an excellent general goals statement from Indian Control of Indian Education (National Indian Brotherhood, 1973, p.3) quoted earlier in the present paper. It is possible to develop detailed statements which are consistent with the NIB paper and other findings from community surveys as proposed in the model in Figure 2. Such a step is necessary to provide a detailed analysis of quality of education. Even more important, recommendations for
improving the process of education would benefit greatly from a detailed analysis of educational objectives and product variables.

1. *Products*

The most direct way of evaluating the quality of education is in terms of the products of the education systems.

1.1 *Identity and self-worth*

The NIB statement referred to a strong sense of identity and self-worth. The findings on this topic are unclear. Parent and student perceptions indicate this goal has not been achieved although there are no direct measurements of it.

1.2 *Completion of high school*

All studies show a strong desire stated by parents for their students to complete high school. This goal is also consistent with the NIB statements concerning preparation for total living and providing a free choice of where to live and work.

The extremely high drop-out rate reported in most case studies indicates a poor relationship between parent goals and student achievement, that is, an extremely low quality of education for Indian students. It is often argued by some educators that conditions outside of the education system, such as lack of parent support and economic factors, contribute to the huge drop-out rate. Information on background and process variables reported in the studies supports this argument to a degree. However, a drop-out rate for Indians four times higher than the national non-Indian rate can hardly be
attributed completely to factors outside of the educational system.

1.3 School achievement

Every single measure of student achievement in every study reviewed for this paper showed Indian students to be behind their non-Indian counterparts. At the same time most parents and Indian organizations have equivalent achievement as one of their major goals. There still are problems of cross-cultural measurement involved in assessing achievement of Indian students. However it is reasonable to conclude that Indian students, on the average, are achieving far below the level their parents and the educational systems desire.

In terms of school achievement, the quality of education of Indian students is very low indeed.

1.4 Indian self-determination

Indian self-determination is a major thrust of Indian people across Canada. The NIB statement reflects this in its goal of enabling Indian people to participate fully in their own social, economic, political and educational advancement.

None of the studies measured this directly. However the drop-out rates, age/grade deceleration and achievement findings indicate that this goal is not being achieved. Again, a poor relationship between educational objective indicates a low quality of education.

2. Processes

It is possible also to evaluate the quality of education in terms of processes.
2.1 Indian philosophy and cultural relevance

The NIB statement referred to the relevance of the curriculum to Indian philosophies and cultures. Many of the studies reported the desire of Indian people for more culturally relevant curricula. Many of the Band-operated schools were instituted precisely for this purpose.

The quality of education in terms of relevance to Indian philosophies and culture appears to be generally low with some notable exceptions in some of the Band-operated schools.

2.2 Quality of curriculum and instruction

The Indian communities in the case studies desire high quality curricula and instruction. This was often stated by comparison to the provincial school systems. However few studies attempted to assess this other than take a cursory look at cultural relevance. Some investigators met resistance to the evaluation of instruction. The Watson-Gooderham report (1984) and the Assembly of Manitoba Chiefs (1984) report a variety of findings indicating that the quality and appropriateness of curriculum and instruction are seriously lacking in federal and Band-operated schools, in relation to provincial standards and, presumably, Indian parents' goals.

2.3 Facilities

The Indian communities in the studies desired good quality educational facilities. As with curriculum and instruction this desire was stated in terms of provincial school systems. It can be demonstrated from the studies which evaluated facilities that the best
facilities are usually in the provincial systems. A mixture of excellent and very poor facilities were reported in federal and Band-operated systems. In fact some of the buildings for Band-operated schools were ideal for the needs of the school, but were inadequate or inappropriate by provincial standards.

2.4 Teacher preparation and in-service

A minority of studies reported on teacher preparation and in-service (e.g. DIAND, 1982; Watson & Gooderham, 1984). However in each case, concern was expressed for the lack of preparation and in-service for teachers in terms of understanding the background and culture of the Indian students, learning to adapt appropriately to the educational background and needs of the Indian students, and having the time and skills to adapt existing curriculum materials.

3. Effect of Quality of Education Studies

A number of the investigators have reported that the process of carrying out the study has raised the awareness of education in the community and has been an important educational experience for many community members (Kirkness, 1978; Thomas et al., 1979). Those studies which involved a larger proportion of the community report this result more frequently. The successful community involvement seems to go beyond the educational and political leaders to the "grass roots" members of the community. It is unfortunate that this result is not reported in more detail so that other studies can take advantage of it.
DISCUSSION

It is possible, but probably not effective, to review many other aspects of the quality of education of Indian students. It is more appropriate at this point to provide a number of concluding statements to draw together the wide-ranging topics of this paper.

1. Quality of Education.

There is no question that the quality of education of Indian students in Canada is very low by virtually any measure.

However the sources of the difficulties are still not understood in any detail. For example the degree to which lack of support services in small, isolated schools, and the degree to which economic factors contribute to these difficulties is not clear.

Even more important, the resources available to ameliorate these difficulties are not clearly understood. For example, local control is extremely important to overcoming problems of education quality for Indian students. But the manner in which local control can work most effectively has not been carefully investigated. An exception is the recent Manitoba report which contains one of the most useful descriptions of effective use of local control (Assembly of Manitoba Chiefs, 1984).

2. Concerns.

Five concerns arise from this review:

2.1 The case studies and other papers reviewed for this paper
frequently show an overdependence on provincial standards for Federal and Band-operated schools. It is important that standards be derived from the long-term goals of the Indian community rather than from a simplistic transfer of goals from the non-Indian school system. Indeed Kirkness found no appreciable difference in achievement between students enrolled in provincial and federal schools (Kirkness, 1978).

2.2 The quality of many of the case studies varied considerably. Some were carefully executed, precisely analyzed and clearly written. Others were little more than the opinions of the investigator with a few, occasionally unrelated tables and factual statements added. It is important that the DIAND, educational institutions, and Indian organizations accept only the highest quality workmanship in these studies.

2.3 None of the studies to date have distinguished between education and schooling. Education provided in the home and the community is a very important component in addition to schooling. It is strongly recommended that this concern be included in any further studies of the quality of education of Indian students.

2.4 Recommendations are very subjectively determined. There is seldom a structured process for developing recommendations. The recommendations are usually based on the experience (or biases) of the investigator. There is seldom a consideration of the links between product variables, process variables, background variables, and educational goals and objectives of the Indian community.

2.5 Community surveys do not tap educational goals and objectives in sufficient depth. Most community surveys require very
brief responses and are usually conducted by mail or by using a
door-to-door interviewer. This procedure provides some useful
information on community perceptions of the products and the processes
of education. But it seldom provides more than superficial
information concerning educational goals and objectives of the Indian
community. A series of interviews, discussions and workshops with a
broad range of the Indian community is required. This is not easy to
accomplish, as this writer can testify from his work in Klemtu and
Okanagan/Nicola (More, 1983 and 1984). We have been developing a
process which includes interview/discussions with small groups of
people conducted by trained interviewers from the community. This is
followed by meetings and workshops to finalize the statements of goals
and objectives. We are not satisfied that we are doing this
effectively enough yet. The process needs more refining. Kirkness'
study (1978) used a series of flexibly structured workshops in each
community at the beginning and the end of her study. As a result she
was able to develop a deeper community input into statements of goals,
and development of recommendations. Certainly the benefits in terms
of more clearly stated goals and objectives which can be compared to
results, outweigh the additional effort required.

3. Definition and model for evaluation of quality of education.

There is clearly a need for a definition of quality of education
of Indian students. An evaluation model that builds upon that
definition, which incorporates community goals, and which provides a
more structured process for developing recommendations, is essential. A definition and an evaluation model to fill these needs are proposed in Figure 1.

4. Teacher Preparation and In-Service.

Teacher preparation and in-service is an area in which significant concerns are expressed and recommendations made. An increasing number of teachers have taken cross-cultural courses in their preparation. A limited number of schools provide a structured orientation to the Indian community. However results indicate that a great deal more needs to be done, particularly at the local level. Teachers need the background information and the skills to adapt effectively to the educational needs and background of their Indian students.
BIBLIOGRAPHY


Department of Indian Affairs and Northern Development. *Indian Education Paper—Phase 1.* Ottawa: Department of Indian Affairs and Northern Development, 1982.

Department of Indian Affairs and Northern Development. *Indian Education—Choosing for the Future.* Ottawa: Author, 1983.


Kirkness, V. J. *Education of Indians in Federal and Provincial Schools in Manitoba.* Ottawa: Program Evaluation Branch, Policy and Research Group, Department of Indian Affairs and Northern Development, 1978.


