THE NIGERIAN TECHNICAL TEACHER TRAINING PROGRAM IN CANADA: PERCEPTIONS OF PARTICIPATING NIGERIAN STUDENTS

by

Boniface Nelson Etuk

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DEDICATION

This study is dedicated to:

My elder brother, Vincent Etuk

My children, Ikom-Abasi and Unwana B. Etuk

and

All earnest international scholars around the world

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The support and assistance of my advisor, Dr. O. Cap, is sincerely appreciated. My other committee members have contributed in various ways, academic advising aside, to help the investigator complete this study successfully. They are Dr. A.M. McPherson, Dr. J. Von Stein and Dr. G. H. Porozny. I thank my external examiner, Dr. D. LeBlanc, for his assistance during data collection at his site. In the process of this study, a host of other professors willingly consulted with the investigator and provided information sources. Their help is remembered with gratitude, especially of those who took part in the instrument validation process. The assistance of R. Bacal, V. Koslowsky, and many others during the development of the instrument is appreciated. Acknowledged with gratitude is the help provided by J. Sloan, G. McClure, D. Tartarin and D. Brown for the development and validation of the instrument, as well as statistical data analysis.

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Last, but most felt and acknowledged, is the endurance by my family here in Winnipeg of my long hours of absence from home.

ABSTRACT

The purpose of this study was to identify and describe the perceptions that Nigerian student teachers held of the Nigerian Technical Teacher Training Program (NTTTP) in Canada with respect to selected aspects of the undergraduate Bachelor of Education (B.Ed) vocational degree programs which were implemented in two Canadian universities.

Specifically, the study sought:

1. To describe Nigerian student teachers in terms of selected demographic variables, including: level of formal education in Nigeria, state of origin, age, sex;

2. To determine the perceptions of Nigerian student teachers regarding NTTTP in the following areas: aspects of administration, knowledge and skills, industrial work experience, student teaching experience, program focus, overseas training concerns, professional goals, occupational teacher education;

3. To determine differences existing between the perceptions of UNB and UMAN Nigerian student teachers concerning each area (as enumerated in Objective #2) of the NTTTP; and

4. To determine the strengths and weaknesses of the NTTTP as perceived by UMAN and UNB student teachers.

A framework for the study was provided. It comprised a structural (evaluation) approach, and a theoretical perspective (perception).

Triangulation methodological design was employed at two levels: first, descriptive/comparative/evaluative triangulation of survey techniques; and second, quantitative-qualitative triangulation

technique.

The data were collected through a personal, on-site interview with a 163-item, nine-part, investigator-designed schedule. A nine-member panel of experts validated the instrument which was then pilot-tested with previous NTTTP graduates. A combined response rate of 84.6 percent was obtained (N=31). Inductive, qualitative data categorization complemented the quantified classification. Data collected from the interview was analysed in two ways: (1) frequency/percentage comparison and chi squared (x^2) test and (2) matrix categorization of univariate concepts content analysis.

On the basis of data collected and the findings of this study, the following conclusions were drawn:

1. NTTTP students strongly supported the need for availability of program implementation guidelines and the direct involvement of Nigerian Federal Ministry of Education, Nigerian High Commission and when feasible Nigerian Universities, in overseas program implementation.

2. There was a high concensus for a need to involve student participants in program decision making and for a more effective selection of potential program student participants.

3. There was dissatisfaction among UNB participants with regards to the adequacy of advance credits awarded for previous work completed prior to NTTTP registration.

4. There was consensus concerning the need for Nigerian related courses which could provide a basis for students to link Canadian training to Nigerian situations.

5. While there was agreement that the UMAN B.Ed program prepared participants relatively more adequately for vocational teaching in

secondary school, UNB program prepared them more for post-secondary teaching or training in industry.

6. Though a large number of students indicated that their initial occupational plans had changed due to the overall NTTTP preparation, a substantial number of the respondents felt the change was due to neither student teaching nor industry work experiences.

7. While no significant difference was obtained in the percentages of graduates who opted for classroom teaching, students at UMAN tended to report a greater inclination towards secondary school teaching.

8. Though a substantial number of NTTTP students indicated that they felt the 24-month B.Ed degree program was resource-efficient and satisfactory a sizeable number of the respondents indicated that it was too intensive and stressful.

9. Evidence showed a vital need for industry work and student teaching (school internship) placements for B.Ed preparation, and also indicated that a number of policies, regulations, and factors adversely affected their implementation in various ways.

10. Although all the students interviewed indicated that they achieved the objectives for which they accepted the NTTTP award, only a minority would accept teaching as a career, or be available for teaching on graduation from NTTTP; a greater number plan to further studies primarily in technology areas or work in industries.

11. Though a substantial number of respondents felt the B.Ed (vocational) degree was important to their long term professional goals and that they had occupational advantage as vocational teachers due to its dual focus, almost all respondents indicated a preference for a degree in their technology areas.

12. General agreement among respondents indicated that with appropriate modifications, the B.Ed degree programs in both universities were suitable for accelerated vocational teacher preparation in Nigeria.

13. It was revealed that community college graduates were a suitable clientele for the B.Ed degree teacher education program and that the judgements of these student participants on the adequacy of NTTTP preparation for vocational teaching in Nigeria were based, at the time, on limited previous experience or training in teacher education in Nigerian context.

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CHAPTER I

INTRODUCTION

The lack of adequate training facilities and numerous other problems require developing nations to sponsor many higher education program students in industrialized countries (Greenberg, 1980; Schoeneberger & Odynak, 1974). These problems arise from general development needs, population patterns, rapid technological development, industrial expansion, changed values, and the need for specialists in schools and other sectors of the economy (Wouter, 1974; Miller, 1982). Societal value shifts and governmental policies affect employment trends and call for varied approaches to education.

All these factors are evident in Nigeria. The rapid socioeconomic changes in Nigeria brought about by the oil boom of the seventies, accounts in part for renewed concern about the educational needs of youth to improve their income-earning power (Briggs, 1969; Ikoku, 1981; Segal, 1981). Concerns about local community employment, improvement of rural areas and the need to curb the influx of unemployable youth from rural to urban areas demand changes in the focus of education system (Blaug, 1980; Hopkins, 1974; Simmons, 1980; Todaro, 1980). These concerns underlie the need for a dynamic education and training programs to keep pace with these rapid organizational changes (Ministry of Information, 1977; Grove, 1979; Taylor, 1981). These needs often result in increased effort to seek overseas training by third world countries.

International education is considered by many developing countries

as one of the fastest means of meeting the needs for trained manpower (Cook, 1981). Major problems can occur in applying at home the skills and knowledge acquired in industrialized countries as Canada by students from developing nations (Nigerian students) (Kuhn, 1983; Lackey, 1981; Moock, 1984). These problems arise because of the differences in conditions which are environmental and include the technological and cultural (Joshi, 1984; Lee, 1981; Segal, 1981). The problems are more pronounced with undergraduate programmes which are in most part culture-based (Rogers, 1983). Thus, as Lackey (1981) observed:

> . . . In many instances foreign training is not only irrelevant and inappropriate to the needs of the less developed countries (Phillips, 1976; Schmidt and Scott, 1971), but in some cases international training may be even harmful. Students learning sophisticated computer-based research techniques, capital intensive agricultural practices, Western concepts of health care value laden community development, and other Western democratic and/or industrialized approaches to development, may help to perpetuate the international demonstration effect by attempting to install technology which is inappropriate to their own environment. Transplanting "institutions and processes from one culture to another is often highly disfunctional". (p. 2).

The problem of irrelevence of foreign training has become a serious concern to aid donors and assistance agents (Lackey, 1981), volunteer organizations (Matheis & Shute, 1983), and sponsoring developing countries (Court, 1979; Moock, 1984). Where more students study overseas than at home, debate ranges over the national implications of foreign education that many consider to be largely irrelevant (Barber, Altback & Myers, May 1984). Court (1979) contends that the questionable relevance with increasing cost of much overseas training has, in Africa, raised questions about the extent to which scholarship provisions has

adapted to changing circumstances and development needs.

The rationale underlying overseas training is that the language of education is universal and that professional, vocational and technical education can transcend long established national and cultural boundaries (Sharma, 1984). Going overseas for advanced education would lead to higher accomplishments in vocational and technical professions. It would also "provide a wide range of general knowledge in social, cultural and political areas (Fraser & Brickman, 1979) necessary for living in a world rapidly made smaller by technological advancements" and requiring global cooperaton (Sharma, 1984).

The purpose of training for technological development everywhere, especially in the third world is to provide a trained labour force to meet immediate and future occupational needs in industry, agriculture, government, communities, health services, communications and household (Miller, 1982; Segal, 1979). To obtain overseas education that is appropriate to meet these development needs at home, cutting across the technological gaps, many third world countries have resorted to programmed contracted education. Contracted training programs provide adequate flexibility in their curricular approaches through the design of tailor-made program experiences in an effort to increase the relevance and transferability of the acquired skills and knowledge (Williams, 1984; CBIE, 1983).

Nigeria is one of those countries that has carried out many contracted international educational programs with Canada often on a large scale (CBIE, 1983; CUSO, 1984; Symons & Page, 1984). In its place as a developing country (Fruehling, 1981; Obiakor, 1980; Staley, 1963),

Nigeria awards many scholarships for overseas education (Craig, 1981; High Commission, 1983) and sponsors several contracted international education programs often at high cost to supplement internal production of necessary manpower (Ehikhamatalor, 1982). To fulfil its responsibility Nigeria through its education partners must continually appraise its training efforts and update them to meet the changing needs of its society.

The 1974 Adebo Commission, as Obiakor (1980) recalled, identified serious shortages of technicians and allied workers for the expanding Nigerian market. For long term relief, there was a need for the education system to produce more technically-oriented personnel (Aderalegbe, 1969; Briggs, 1969; Ministry of Information, 1977). In this regard some immediate solutions proposed included the production of an adequate number and appropriate calibre of technicians and technical teachers within and outside of Nigeria.

Notwithstanding its high cost, international technical education was seen as a fast means of increasing both the short term need and a preparation for long term technological demands of Nigeria's development (Nigeria Signs, 1981). The Nigeria Technical Teacher Training Program (NTTTP) in Canada was one of the international technical education programs sponsored to assist in the production of Nigeria's technical manpower needs (Cap & Judt, 1983; CBIE, 1983). It evolved from the Nigerian Crash Technical Education Program (NCTEP).

Background and Setting

The NTTTP was an international education program carried out between a developed Western and a developing Third World country. Because of the general lack of studies in the field of international education there were many issues of concern to warrant a systematic study of the NTTTP. There were issues about the lack of relevance of overseas training in developed countries to satisfy the need of developing nations of the Third World. This concern was particularly applicable for this study due to the nature of NTTTP as a contracted international technical teacher education program, experimental as it was for fresh community college graduates. Many writers and educators do agree that a new education program should often be continuously assessed, to examine its impacts on the various participants and the community (English and Kaufman, 1975; Patton, 1980). The effectiveness of a new program, curricular or other innovations are best determined by obtaining useful information which assesses the worth of the program from actual participants (Saracho, 1982, p. 74). NTTTP was a new program in that it was the first time Nigeria had trained secondary school teachers as a group in the two university departments in Canada.

NTTTP had been implemented for the entire program period of three years with no formative evaluation. This lack of continuous assessment of the implementation strategies prompted this study. A final report on the study of selected program participants was developed at the end of the three years of the program (LeBlanc, Cap, Porozny, Mitchell, Bacal & Etuk, 1986, May).

Lack of Studies

There is an acute lack of studies in the field of international education (Barber, Altback and Myers, 1984, May). Only few studies exist in this field that address the concern of appropriateness of overseas training to the development needs of third world countries and their students (Court, 1979; Kuhn, 1983; Lee, Abd-Ella & Burks, 1981; Moock, 1984). Contracted education studies that address their relative effectiveness are also not available in Canada (Shore, 1986). This dearth of studies is surprising especially when contracted education and training has been on the increase in Canada since the 1970s (Symons & Page, 1984). There is also the nature of contracted international programmed education as a group-study involving students from one country in particular settings of another country. Such programs carry some related issues and concomittant problems that need to be studied (Symons & Page, 1984; NAFSA, 1979).

The few studies that exist at present in the field of international education are general in nature, not specific to particular programs and clientele (Cunningham & Burge, 1984) in the context of sponsoring country and cross-cultures. For example, no study was found by this investigator which was directed at the issues of cross-cultural transfer of technology on any of the Nigerian Manpower "Crash" programs. That major program was carried out in about twenty-five (25) countries of the world. In Canada, the Crash Programme grew within two years to involve about 800 students (Morton, 1983) "at over 50 colleges and universities in all ten provinces of Canada" (Morton, 1983, p. 4). The programs were not evaluated in any of the settings, nor were the differences

identified. Lack of knowledge of the program characteristics at each setting brought about problems in transfer of education, including certificate equivalency (CBIE, 1982a).

Call for More Studies

Since very few studies exist, a number of writers and investigators in the field of international education have called for systematic investigation in this area to guide decision-making. In the larger context, Barber, Altbach and Myers (1984) in their "Introduction: Perspective on Foreign Students" in the May 1984 special issue of Comparative Education Review concluded that:

> More generally, the seemingly inevitable flow of students from developing countries to industrialized nations is now very much part of the North-South debate and the quest for a new educational order.
>
> . . . Almost all the articles (in this issue) suggest, directly or indirectly, the need for a considerable amount of further research not in the conventional sense that all studies invariably points the way to further problems but, rather, because there is a genuine lack of good data and good studies on which to build. Several of the authors clearly realized that they were taking a first cut at a problem, often asking questions rather than providing answers, and providing answers that would surely need to be refined as the questions became more precise (p. 166).

Many more frequent studies, they felt, will enable decision makers to understand the underlying dynamics and rationales in this field.

This study was to investigate the Nigerian student teachers' perceptions of their Canadian NTTTP experiences. It was assumed that investigating students' perceptions would generate useful information to understand the way the NTTTP was implemented (Patton, 1980; Saracho, 1982). Such data could guide further program planning and

implementation.

Need for the Study

Nigeria is sponsoring an extensive number of technical training programs in many countries. With the trend in international education market - a continued flow of students from Third World countries to the developed nations - there is the likelihood that overseas training will continue from Nigeria. This is axiomatically inevitable, given Nigeria's resource base and population. Besides, Nigeria realizes that with the Universal Primary Education (UPE) expansion

> government will continue to welcome international aid and cooperation in higher technical education. Such aid and cooperation could be in the form of exchanges of personnel, exchanges of ideas, curriculum, development and staff development (Federal Ministry of Information, 1977, p. 20).

Therefore, a study on ways to relate experiences in overseas education training assistance to development needs at home becomes appropriate.

Various factors created the need to investigate the perceptions of the Nigerian student teachers towards the NTTTP effort. First, overseas training in developed nations, especially in technology and vocational education areas, presents a problem regarding transferability of learning to and applicability of skills in developing nation situations. Such a problem arises because of the technological differences between industrialized and developing nations.

> Of all the gaps that separate Africa from the rest of the world, the science and technology gap is probably the most critical and the most profound (Segal, 1979, p. A184).

It became vital, then, to determine what aspects of the individual

vocational teacher education (B.Ed) programs at the University of Manitoba and the University of New Brunswick the Nigerian students considered relevant and useful for working in Nigeria.

Second, NTTTP was one of several contracted international education programs between Nigeria and Canada managed by various Canadian agencies or institutions.

Third, NTTTP was experimental to all parties. It is the first time such a program was undertaken between Nigeria and Canada for technical teacher training. As with the NCTEP certificate equivalency issues (CBIE, 1982b), some uncertainties were bound to exist with NTTTP which would benefit from some clarification based on systematic data collection from a study of this nature. Also, graduates of colleges of technology in Nigeria are not usually recruited directly for training in universities for B.Ed in vocational teaching. Thus, the NTTTP in Canada represented a new concept of B.Ed teacher training in the Nigerian international education market. It was, as well, a potential "alternative vocational teacher training program" approach that, presumably, if perceived to be effective, could be adopted for use in Nigeria internally.

Besides, the short 24-month duration demanded continuous concentrated and hard work from most program students for successful completion of the B.Ed requirements. This intensive preparation could be one way of accelerating the production of vocational teachers for and in Nigeria. As well, it could be a means of building desired work ethics, and planning and organization skills in Nigerian vocational teachers. These graduates, therefore, are a new calibre of vocational

teachers that may be produced within Nigeria. Their perceptions of the NTTTP (B.Ed programs) could become very useful to Nigerian planners of educational programs both internationally and internally.

Fourth, since the NTTTP seemed to have no written and specified program objectives to guide program implementation, it was felt this study could help generate some suggested feasible objectives, at least from the part of the participating students.

Fifth, even with the lack of specified NTTTP objectives, certain necessary components, such as practical experience for students in industry and the classroom (Ministry of Information, 1977; NAFSA, 1979), needed to be assessed. The feasibility of these contracted education "special requests" presented a challenge which was resolved in different ways in the two provinces. Student participant perceptions of such individually modified program features were thought of as being beneficial for program planning and scheduling. Both B.Ed programs could benefit from the opinions of the student teachers who actually went through the placement program experiences. The actual participating students could react to the effects and usefulness of these placement experiences.

The need for this study was reinforced by a lack of pertinent data and information regarding perceptions of Nigerian vocational education student teachers attending their training programs in Canada. How these training experiences gained overseas affected NTTTP graduating students' future occupational goals would provide useful information to vocational teacher education program planners in Nigeria.

Development needs for foreign training and for more technical

teachers still persist in Nigeria. More students could be expected to continue in the NTTTP sometime. Knowledge of the useful aspects of the UMAN and UNB B.Ed degree programs that are relevant to the needs of Nigerian student teachers would help participating institutions arrange suitable B.Ed program experiences for future NTTTPs or similar clientele. Such appropriate program structuring would make the institutions able to provide satisfactory service to program students.

Possession of an approach to studying students' perceptions would place the institution in a better position to study systematically the views and concerns of foreign student clientele. The result of this study could shed some light on the concerns about overseas learning experiences from international students' standpoints. This understanding could help institutions provide satisfactory assistance to developing countries like Nigeria who seek their (universities') expertise. Also, they would be able to provide appropriate training through a flexible curriculum (Shore, 1986) to these foreign students as individuals who have to make their education adequately functional in work situations in their home countries. The educational institutions would thus satisfy sponsors' needs and continue to remain competitive in the international education market.

Finally, the investigator believed that data obtained through this study would prove to be useful in the development of future vocational technical teacher education programs.

It was also believed that student teachers could help to determine overlooked NTTTP student teachers' concerns. The investigator hoped that perceptions of Nigerian student teachers regarding the NTTTP could

be measured, and some factors and characteristics related to their perceptions could be determined. Based upon such results, efforts could be made by authorities concerned (Canadian and Nigerian) to improve the vocational technical teacher program. In addition, it could guide the implementation of similar vocational teacher training programs within Nigeria.

Statement of the Problem

The purpose of this study was to identify and describe the perceptions that Nigerian student teachers held of the NTTTP in the Faculty of Education at the University of Manitoba (UMAN) and at the University of New Brunswick (UNB).

Specific Objectives

The specific objectives of this study were:

1. To describe Nigerian student teachers in terms of selected demographic variables, including: level of formal education in Nigeria, state of origin, age, sex;

2. To determine the perceptions of Nigerian student teachers regarding NTTTP in the following areas: aspects of administration, knowledge and skills, industrial work experience, student teaching experience, program focus, overseas training concerns, professional goals, occupational teacher education;

3. To determine differences existing between the perceptions of UNB and UMAN Nigerian student teachers concerning each area (as enumerated in Objective #2) of the NTTTP; and

4. To determine the strengths and weaknesses of the NTTTP as perceived by UMAN and UNB student teachers.

Research Approach

When conducting a study in a particular area, it is important from the onset to establish a framework to be used as a basis for the study (Burkett, 1980). McNamara (1973) has suggested the location and placement of a framework for a study. He wrote:

> After stating his problem or phenomenon ... researcher should then describe the conceptual perspective or model which provides the framework for the collection and interpretion of data (p. 19).

This section presents in sketch the concepts, approaches and techniques which collectively provide a framework for this NTTTP student teachers' perception study.

The approach to this study is comprised of two conceptual perspectives: the structural and the theoretical. It also employed a mixture of survey strategies (triangulation) approach for its design of method. Triangulation, as applied to this study, is the use of multiple approaches of survey research to gathering data.

> It is conventionally assumed that triangulation is the use of multiple methods in the study of the same object (see Campbell and Fiske, 1959; Webb et al., 1956). Indeed this is the generic definition I have offered, but it is only one form of the strategy. It is convenient to conceive of triangulation as involving varieties of data, investigators, and theories, as well as methodologies (Denzin, 1978, pp. 294-295).

This study employed triangulation in two ways - variety (mixture) of survey strategies and variety of data. Firstly, triangulation strategy involving three varieties of survey techniques (descriptive,

comparative, and evaluative) was used for its methodological design. Secondly, triangulation involving two types of data gathering procedures was utilized. Quantitative and qualitative data were collected through interview to complement each other for analysis (Meyers, 1981, p. 162). Figure 1 shows the illustrative framework of the research approach.

The strategy used here was the variation Denzin (1981) refers to as "within-method" triangulation.

> This form is most frequently employed when the observational units are viewed as multidimensional. The investigator takes one method (the survey) and employs multiple strategies within that method to examine data. A survey questionnaire might be constructed that contains different scales measuring the same empirical unit (Denzin, 1981, p. 301).

For this study of student perceptions the questionnaire contained five different types of scaled items and responses. It studied multidimensional issues of NTTTP implementation, ranging from aspects of administration, curricular issues, international technological and cultural factors to student characteristics.

Quantitative and Qualitative Data Triangulation

Investigators and readers cannot adequately understand quantitative variables unless the research is founded on qualitative analysis of the meaning of those variables. As Meyers (1981) puts it:

> Qualitative and quantitative studies are not so much complementary or convergent as inseparable. Quantitative methods often cannot be understood unless qualitative data are used to inform the interpretation of the design and the variables (p. 162).

Qualitative data were sought for greater details in order to explain the quantitative scaling. The use of two types of data to complement one

NTTTP: INVESTIGATION CONCEPTUAL FRAMEWORK

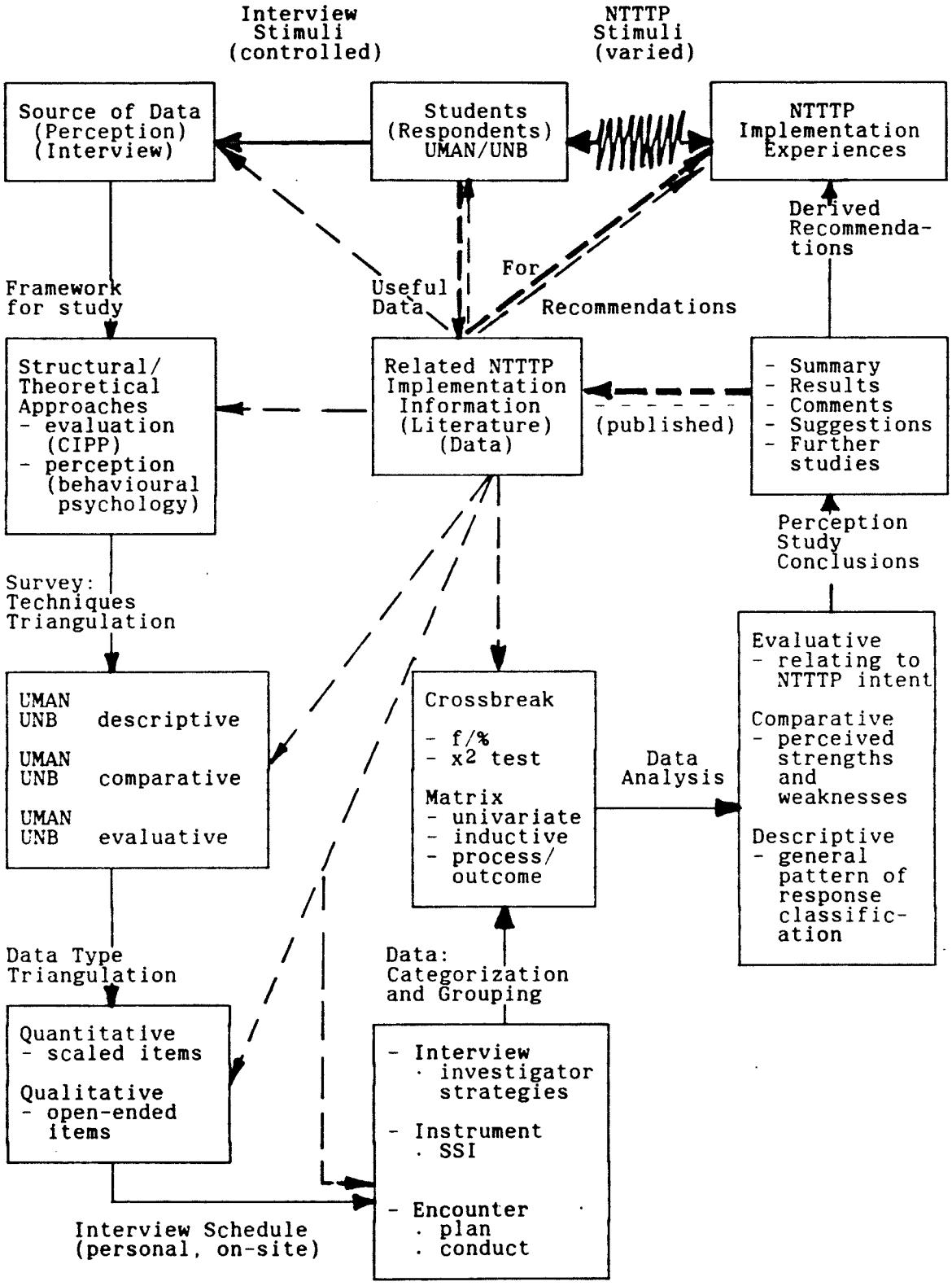

Figure 1. Flowchart of NTTTP perception study (not necessarily in sequential order of activities).

another was necessary since this area of study of student perceptions in international technical teacher education in general and NTTTP, a 24-month teacher preparation program in Canada for Nigerian students was very little explored. Also the program was essentially new. It also apparently lacked stated objectives. Again, based on the use of information sought it was necessary to generate the two types of data. A little explored area of study (Meyers, 1981, p. 161) of unfamiliar and multidimensional nature (Denzin, 1978, p. 295) such as this required at least generating the two kinds of data to obtain useful information for decision making.

Limitations

Apart from the concerns of ex-post-facto study (Kerlinger, 1964), this study has two considered limitations:

1. It was limited by the responses supplied by the interviewees to the investigator during the interview; and

2. The interviewer was dependent upon respondents' willingness to participate voluntarily in the study.

Delimitations

Two major delimitations were also considered necessary for this study as designed:

1. The investigator chose to examine the perception of only the Nigerian student participants enrolled in NTTTP since 1983 in the two participating Canadian universities; and

2. The student participants were identified from the master list

of selected NTTTP candidates for 1983 supplied by the program administrator, the Canadian Bureau for International Education (CBIE, 1984).

Organization of the Thesis

The first of five chapters (Introduction) of this thesis has presented the issues of concern that gave impetus for this study. It presented the problem as a study of student perceptions in the context of international education between Nigeria and Canada and a novel technical teacher education program carried out in two Canadian universities. Specific objectives, research approach, and definitions of terms were provided. Each of the next four chapters will focus on the review of related literature; the methodological design of the study; triangulation data analysis; and the summary, conclusions, and recommendations of the study.

Definition of Terms

Nigerian Technical Teacher Training Program: a 24-month teacher training program for selected gradutes of Canadian Community Colleges in any field of technical specialization. The program was contracted to a Canadian administrative agency (CBIE) through the Canadian Department of Trade and Commerce by the Nigerian Federal Ministry of Education (FME) for a fee. It was operated at the University of New Brunswick and at the University of Manitoba, cooperating with Red River Community College. Graduates were to return to work in Nigeria after their education in Canada. The acronym NTTTP was often used to refer to this

program. The NTTTP continued for a few B.Ed graduates to a Master of Education program (CBIE, 1985).

Nigerian Canada (Crash) Technical Educational Program (NCTEP): was the Community College program from which the NTTTP evolved (CBIE, 1984). It was also contracted from Nigeria to Canada in 1978, through which 770 students were provided with technical education. It was phased out in 1984.

Industrial Work Experience: a component of NTTTP whereby program students were placed in industries and work sites for supervised practical experiences relating to their technology area.

Industrial Supervisor: representative from the industrial enterprise assigned to guide and evaluate students jointly with coordinator and student during the industrial work experience.

Cooperating Teacher: school/college teacher in a subject area who worked with and evaluated the student's teaching practice experience jointly with the industrial coordinator and student.

Professional Education Courses: all professional teacher education courses for knowledge or skills, including similar courses offered in more than one institution within Canada for transfer credits.

Academic Courses: training in a teaching subject other than the technology-related courses. Minor subject or teachable area referred to the sum total of such academic courses.

Universal Primary Education (UPE): a nation-wide primary education launched in Nigeria in 1976. This education was free in nearly all the states. A new "6-3-3-4" education structure was adopted by the UPE system. Six years to be spent in secondary school would be split into a

3-year junior and 3-year senior secondary levels. The rationale was to emphasize the teaching of technology/technical subjects at both stages, each with terminal graduation preparation for those who so desire (Ministry of Information, 1977; Taylor, 1981).

Triangulation: The use of a mixture or variety of survey techniques (descriptive, comparative, and evaluative) and data (quantitative and qualitative), employing scaled, open-ended and free response interview items.

Dual-Focus B.Ed Approach: The NTTTP format offered in both settings without a deliberate and purposefully focussed preparation for work in industry or teaching at the secondary technical school level. For this approach, the community college education formed one part of the preparation, with the university forming the second component, giving it the dual component.

Bi-Focal B.Ed Approach: NTTTP B.Ed program formats incorporating reordered components with a deliberate and purposeful attempt to focus the preparation to either work in industry or secondary technical school teaching. The college component also formed the core which determined the type of additional academic and technical components in the university preparation to focus the B.Ed to either work settings.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to identify and examine the literature relevant to NTTTP implementation as limited to Canada. Both primary and secondary sources of information were used for the review of the literature. The review discusses the sources of information and the issues in the context of NTTTP implementation and the study of students' perceptions. The concept of NTTTP description sees NTTTP as the umbrella program comprising the B.Ed degree programs of UMAN and UNB. The context of implementation consists of the international context and the administration of NTTTP in Canada. Perception study approach discusses both the structural framework (evaluation) and the theoretical perspective of perception.

Sources of Information

Program documents obtained from NTTTP administrators and related agencies in person, by correspondence (Appendix A), informal interviews, in person, and by telephone constituted the primary sources of information. The universities, CBIE, CIDA, and Nigerian FME-related agencies were contacted for information. These information sources were used mainly for NTTTP description.

Secondary sources of information were available through the Educational Resources Information Centre (ERIC) system and Clearinghouse for information on international, vocational teacher education and related programs. Dissertations, theses, abstracts, journals, and periodicals served for initial research in conceptualizing and

establishing the framework for the investigation. Some of these documents were found locally. Others were obtained through interlibrary loan facilities at the University of Manitoba library system.

NTTTP Implementation: Concept of Program Description

This section on the concept of NTTTP description discusses the "oneness" of NTTTP as implemented in Canada. It presents NTTTP first in an international education developing and developed nation. It provides a description of the Canadian program as distinct from NTTTP in other countries such as the USA. A framework was considered useful to focus the description. Finch and Crunkilton (1979, p. 256) suggested an applicable framework for content of the description of such a program. Part III of the suggested "Content of an evaluation plan: curriculum description" was modified for this study. This program description "guide" contained program objectives, philosophy and content, program procedures, student population and program setting (Finch & Crunkilton, 1972). Figure 2.1 shows NTTTP concept used to describe the program in this literature review chapter.

The "oneness" of NTTTP, its international context, the Canadian setting and training contextual descriptions are provided. The contract to administer the NTTTP in Canada was signed between CBIE and FME. Student participants were selected from within Canada by CBIE and placed in the two B.Ed degree programs at the University of Manitoba (UMAN) and the University of New Brunswick (UNB). On graduation the perceptions of the two groups of students were studied to determine the respective judgements of their B.Ed programs.

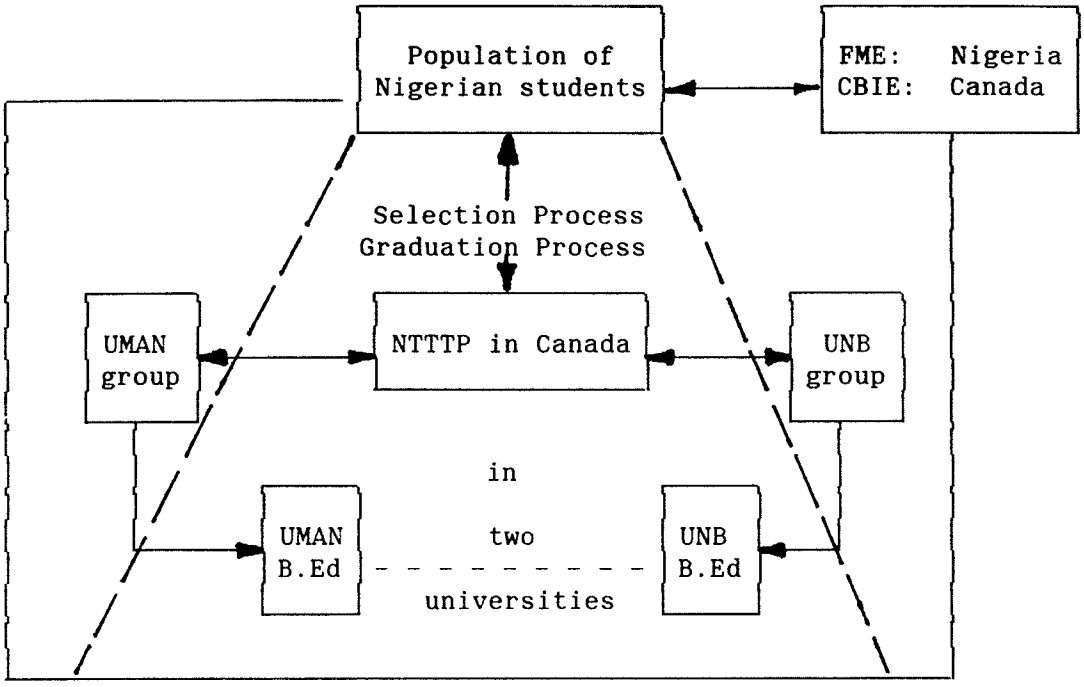

Figure 2.1. NTTTP description concept.

NTTTP is conceptualized as the umbrella program consisting of two separate B.Ed degree programs in two university settings in Canada (Figure 2.1). By assessing the individual B.Ed. programs' provisions, the participating Nigerian student respondents are in effect assessing the implementation of the NTTTP in Canada. The implied notion here is that from Nigeria the NTTTP in Canada is more likely to be viewed as a single program rather than two, as distinct from the NTTTP in USA (US Signs, New York Times, 1981), which from Nigeria would also be viewed as a single program. Each of USA or Canadian NTTTP graduates would likely be identified as having different preparation as a result of various input factors including the entry backgrounds to the programs of student the participants and the duration of the program of study. This assumption is also supported by the fact that most program

correspondences often identified the NTTTP participants as a group and were treated as such; and different from the "mother" program NCTEP participants.

The administrative conditions or program input factors of the NTTTP award also lent credence to this concept. Key common factors were the program duration (two years) and terminal degree (B.Ed) which were similar unlike the NCTEP where certificates, diplomas and degrees could be awarded after any number of years of satisfactory completion of requirements for graduation.

Participating students' perceptions were collected based on this concept of NTTTP to assess each B.Ed degree program in their individual settings. Interviewees' perceptions were also meant to bring out the differences and similarities between the implementation strategies of the two degree programs. In conceptualizing the study based on that description it was possible to make suggestions about each of the B.Ed programs in the two settings and consequently the entire Canadian NTTTP.

NTTTP: International Context

The NTTTP in Canada was undertaken as one of the programs to facilitate effective implementation of technology-based school curriculum in Nigeria. The development of formal education in Nigeria began with the advent of missionary schools. The curriculum of these schools were largely shaped by the desires of the proprietors and the then existing employment opportunities in colonial government offices and trading agencies. Soon after independence, and especially after the Nigeria Curriculum Conference in 1969, efforts were made to restructure

the school curriculum. Rapid expansion of the school system in the 1970s, coupled with the need for technical teachers to implement the new education curriculum led to the NTTTP in Canada. As conceptualized, without its larger context, NTTTP in Canada was an international technical education program between a developing Third World nation and developed nations. The issues of concern to Nigeria as a Third World sponsor of international training "point to the need for more systematic information than we now have about the pattern of scholarship and its relationship to training needs and job performance" (Court, 1979).

Lack of Training Plan

NTTTP did not appear to have its own goals. Many programs, according to Patton (1980) do not often have specified objectives for many reasons which may include the time constraints to planning. Nigeria is among the few countries of the Third World that have no guideline for training overseas. Such guidelines do help students select appropriate programs they could practise back home. Nigeria's training overseas also lacks basis on well-defined development needs. As Craig (1981) contents:

> Nigeria has no manpower planning of the kind that other Third World nations use to direct their students into appropriate academic programs (Craig, 1981, p. 42).

For effective overseas program implementation, Nigeria in its situation needs to know more about the kinds of training, institutions, programs, and time periods overseas which relate to particular skill needs and how they can be integrated into its national and regional programs (Court, 1979). With such information students could be adequately informed and

prepared for overseas studies. Program administrators overseas also need to know which of their college/university programs do and do not satisfy the needs of their clientele and to improve their programs accordingly for effective program offerings and to remain effective in the international education marketplace.

Overseas Education and Third World Development Need

Writing on the U.S. educational experiences, which are similar to Canadian, for foreign Third World students Rogers (1983) noted:

> The U.S. institution's undergraduate and graduate curricula (courses, readings, research, etc.) are based primarily on (1) this country's economic, political, and social experience; (2) its agricultural practices and natural resources for industrial development; and (3) its unique cultural heritage and ethnic mix (p. 9).

As a result, he concluded the training offered may not be entirely applicable in the conditions extant in other countries.

Joshi (1984) has confirmed this assertion and also identified a number of issues of concern in international education. They include "the question of cost - who pays for what in the education of foreign students; of relevance - and the appropriateness of studies and research projects to conditions which face foreign students in the home country"; and how they relate the needs in their home countries to the opportunities in the countries of training (p. 69).

The concern about relevance the trend that overseas education will continue to increase, have suggested a need for better understanding of the dynamics of foreign study. This understanding will permit a more effective adaptation to meet the demands of overseas training for Third World sponsors. After all, the purpose of technological education

everywhere is to satisfy development of the world's peoples (Sharma, 1984). At the present, this need for adaptation has brought about the ensuring tendency towards contracted education programs.

Contracted education programs enable sponsors to ask for special demands to satisfy their peculiar development needs (Williams, 1984). Such demands are usually in form of admission criteria and training curricula, and the need to have a faculty member who is knowledgeable in students' culture (Moock, 1984). With an understanding faculty member (Court, 1979), a flexible curricula to incorporate foreign students' home information (Shoft, 1986; Joshi, 1984), and a well prepared student (Rogers, 1984), contracted education could promote relevance of learning and effective transfer of knowledge (Schoeneberger & Odynak, 1974). The factors for bringing about this required relationship have not been clarified in the contracted international education market.

There are numerous harmful effects when overseas education undertaken in a developed nation is not relevant to the needs of developing nations who are buying the technology, sometimes at high cost (Lackey, 1981; Kuhn, 1983; Court, 1984).

Issues on Relevance

In the study of self-perceived needs of foreign students, Lee (1981) showed that the students' greatest concern was related to the issues of relevance and appropriateness of training, and application of knowledge to situational needs at home. Important needs were perceived in the areas of academic planning, relevance of academic training, training to apply knowledge, extra-curricular learning experiences, and facilitating course work (Joshi, 1984). Suggestions were therefore made

that academic programs should be geared to be relevant to the present needs of the sponsoring country. Also, recommendations were made that more international materials should be included incourses, and training for knowledge application should be provided. Other suggestions were the inclusion in foreign students' program of experiences of management and leadership training, and some training needed to prepare students to be change agents in the home country (Joshi, 1984).

Cunningham and Burge (1984) studied international Home Economics Students' Critique of U.S. Educational Experiences. They found that the most frequently mentioned concern was also relevance of training to their needs. They suggested that more studies should be done in this area in order to find ways of increasing the relevance and value of U.S. education to these developing nations' clientele. While academic standards should remain unchanged, suggestions have been made for restructuring of overseas educational experiences to meet the needs of foreign students, and to take into account the culture and environment to which students will return to practice (Joshi, 1984). Shore (1986) has indicated that such flexible curricula is not available in Canada and should be considered by universities receiving foreign students.

Moock (1984) contended that:

> Overseas training offers many pitfalls for the African student. Unless the staff of the host university is familiar with the professional climate and development circumstances of the students' country, major problems can occur in translating the content of study into practical applications at home (p. 231).

Court (1979) also felt, as Moock (1984), that professors who are knowledgeable of foreign students' culture are able to structure

learning experiences that are relevant to the needs of foreign students. Rogers (1984) felt that academic advisors and professors will be willing to help their students select appropriate electives. But he added, "it is up to the student to take the initiative in seeking their advice and assistance" (p. 9). Thus, in addition to the presence of a professor willing and able to help the student, the student must know what his needs are.

The quality and relevance of academic advice that the student obtains will thus depend to a large extent on his own approach to study in the overseas setting (Henson, 1986). This implies that the student must know what it is he wants to accomplish through pursuing a particular academic or professional degree.

> Unless he has carefully defined his long-range objectives at the outset, he will no be in a position to clearly articulate his needs and interests to those from whom he wishes to obtain advice (Rogers, 1984, p. 5).

For a student to be in a good position to plan, he will depend largely on the availability of program goals and detailed information about the proposed overseas training. Who should best provide such information? When and where? Are matters yet resolved in the education of the foreign student? How overseas training should be offered to maximize its benefits to participants still remains an illusion today.

There appears to be a need for the involvement of student home information authorities to increase the likelihood of student success.

> It seems clear, for example, that the probability of an individual being able to construct a relevant programme is likely to be greatest where he works with professors who have had experience in his home country and know the job and conditions to which the individual will return. An extension of this

> argument suggests the utility of training which is concentrated in a small network of overseas universities which have links with the home institutions of the country in question (Court, 1979, p. 543).

That international education programs benefit their participants depends greatly on their administrative structures and provisions. In this respect, Jaffe (1972) concluded that programs are beneficial to the participating students, professors, and countries, provided that the programs are administered in a way designed to achieve the objectives most usefully.

NTTTP: Canadian Context

Vocational teachers were urgently needed in Nigeria for the implementation of the 6-3-3-4 education system. The Nigerian Federal Ministry of Education was saddled with the responsibility for producing these required teachers within and outside of Nigeria. In addition to employing foreign vocational teachers, training positions were "bought" overseas for rapid increase in the number of indigenous Nigerian vocational teachers available for the UPE implementation. In North America, Canada and USA participated in these training programs (NTTTP). Vocational programs were identified and CBIE administered the NTTTP in Canada. The CBIE, with FME, was to select appropriate vocational teacher training programs in Canada, to select and place Nigerian students accordingly and monitor the program progress and implementation processes. As administered, the participating universities reported directly to CBIE, which in turn reported to FME.

CBIE: NTTTP Administrator

> CBIE is a national, non-profit organization, founded in 1966. The Bureau works to encourage international involvement by Canadian educational institutions. It ... operates educational exchanges. CBIE also acts as an agent in developing and administering education and training programs for foreign governments and companies on a contract basis (CBIE, 1984, p. 1).

The contract Education and Training Services (CETS) Division has the official responsibility to administer "contract scholarship programs for international students" (CBIE, 1983-84, p. 3). The administration of NTTTP as the NCTEP was, therefore, a responsibility of the CETS Division of CBIE. It acted on behalf of FME in the matter of students' program concerns.

CBIE acts on behalf of students "sponsor and is responsible for the overall training of the students participating in each program" (CBIE, 1983-84, p. 4). Program contract between CBIE and students' sponsor "specifically outlines the areas of responsibility" (CBIE, 1983-84, p. 4). Thus CBIE represents the students sponsor in Canada and performs its duties in this role for sponsor-paid program administrative fee.

Regarding program students' admission, it is the duty of CBIE to arrange and negotiate training spaces in Canadian institutions on sponsors' and students' behalf. It is part of the negotiation that CBIE establishes training conditions at each site "and comes to a satisfactory arrangement in writing with each institution as to the duties and responsibilities of each institution" (CBIE, 1983-84, p. 4). By the time students arrived in Canada or registered in their education and training programmes CBIE has gone through a series of negotiations and has come to an agreement as to what training students would receive

in Canada (CBIE, 1983-84) and under what conditions of terms.

> In conjunction with Canadian institutions, CBIE develops programmes to meet the educational and training needs of other countries. It works directly with academic departments on matters of admission of foreign students and the arranging of tailor-made programmes for those students which are suitable to the needs of their countries (CBIE, p. 5).

In its administrative role, as stated, CBIE's CETS Division has the duty to structure relevant academic programs to satisfy the needs of both its students and their sponsors. Implied in this role CBIE's contracted programmes are "custom-made" arranged by CBIE with the educational institutions who provide the training and with the involvement of and acceptance by the sponsor.

NTTTP: Product of NCTEP

CBIE involvement with the Nigerian project began in 1978. As CBIE's draft making document recorded:

> ... the Nigerian Federal Ministry of Education approached various Canadian NGO's, through External Affairs and Industry, Trade and Commerce, for the training of middle-level technical manpower. The Nigerians were sufficiently impressed by CBIE proposals and capabilities to contract for the Nigeria/Canada Technical Education Programme.
>
> This programme was established to meet Nigeria's immediate need for a middle-level technology workforce and called for the placement of 500 students per year over a period of five years at a cost of $65 million (sixty-five million dollars). The Nigerian programme grew to involve over 700 students at 50 universities and technical colleges in all ten provinces of Canada (Draft Policy, p. 2).

This program was suspended after two of its scheduled five intakes of students. NTTTP evolved from and replaced NCTEP in 1982.

The NCTEP, the NTTTP parent program, started in 1978. The contract

agreement for the program was signed on June 6, 1978 "between Nigerian government's Ministry of Education and the Canadian government's Department of Industry, Trade and Commerce" (Morton, 1983, p. 30). In terms of magnitude:

> The (Nigeria/Canada) Crash Program was the largest cost-recoverable technical program ever mounted in Canada. A cost-recoverable program is different from an aid program in that a cost-recoverable program is paid (for) by the country receiving the training rather than the donor country (Morton, 1983, p. 30).

NTTTP was implemented under the NCTEP contract. It retained the cost-recoverable features of NCTEP as implemented in Canada by CBIE.

Again, the NTTTP was suspended after two intakes. The first intake was September 1982, the second and last was September 1983. At present, the NTTTP has continued experimentally to graduate studies for selected graduates (CBIE, 1985).

The concept of the Technical Teacher Training Program was first developed with the commencement of the NCTEP. The Nigerian government realized from the beginning that it was imperative Nigeria had the schools and especially the teachers capable of teaching technical subjects rather than be continually dependent on overseas training (Judt & Cap, 1984). But it was only in April 1982 that approval was given to proceed with the NTTTP (Morton, 1983).

> Consequently a letter was received on April 23, 1982 by the Canadian High Commission in Lagos from the Federal Ministry of Education. The letter approved of the Technical Teacher Training Programme and it also instructed CBIE to prepare a list of potential candidates for the programme (CBIE, 1983, p. 15).

From the students selected, 24 comprised the first intake for the NTTTP in 1982. The investigator was one of these first group of NTTTP

participants.

Financial Obligations of NTTTP

At the end of four years, July 1978 to May 1983, the Nigerian government spent over $25 (twenty-five) million to train about 700 Nigerian students. The CBIE report covering the period of 1978/79 to 1982/83 contends that:

> While this is a lot of money, the Nigerian government can proudly claim that no Canadian student was displaced, nor was Canadian taxpayer forced to pay for the cost of the Nigerians' training. The whole programme was done and paid for by Nigerians. The government kept its word that they would be self-reliant. Moreover, while many Nigerian students in the United States and Canada have found themselves in financial difficulty, over the past five year span of the Crash Programme there have been very few financial crisis (Morton, 1983, p. 31).

Implemented as an extention of NCTEP, the NTTTP was free from financial crises. Even the change of government did not adversely affect its implementation financially, in terms of payment obligations to the students, administrators and program training institution.

CBIE wrote a memorandum addressed "To: All Nigerian/CBIE students", "From: Floyd Tuzo", the then director of CETS Division of CBIE on January 5, 1984 on the "Subject: Change of Government in Nigeria" regarding the financing of NTTTP implementation. It read in part:

> In response to the change of Government in Nigeria CBIE would like to assure Nigerian students who are being supported by the Crash/Technical and the Teacher Training Scholarship programs of the following:
>
> 1.) The sudden change of government does not alter the study programs.

> 2.) The finances, including school fees and living allowances are already in Canada. CBIE will continue to pay these expenses on time.

Thus the memorandum confirmed that the "coup in Nigeria does not affect the Nigerian programs administered by CBIE" (CBIE, 1984, p. 58-59). This memo was copied to Mr. H. Elabor of Nigeria High Commission, Ottawa.

As a major input, it does not appear that finances at least up to the time of the memorandum was a major issue in the fate of NTTTP which at the time of this study had been suspended in Canada. Both universities operated under similar contracts with similar cost per student. The fact that the NTTTP in USA still continues lends credence to this assertion. Nevertheless other features of the Canadian NTTTP could have played some greater role in its suspension or failure to continue the program.

It was expected that new intake of the students will be received but selected from Nigeria (CBIE, Notes, 1982). The NTTTP B.Ed program has not yet been renewed. But CBIE reported that the NTTTP has continued in a different form.

> The program has been extended for another year. Fourteen of the graduates are participating in a Graduate Program arranged by CBIE, the University of Manitoba and the University of New Brunswick. The trainees have been given full graduate scholarships by CBIE on behalf of the Nigerian Federal Ministry of Education and graduate fellowships from the two universities (CBIE, 1985, p. 11).

At this present stage the Nigerian Technical Education Program in Canada has evolved from technology college diploma programs in 53 colleges to B.Ed program and onto M.Ed Graduate Education programs in the two universities. The numbers have decreased correspondingly from the

reported 770 in 1978, 60 in 1983, to 36 in 1985 and down to 14 in 1986. Further developments may be expected given its process of evolution.

NTTTP Student Selection

NTTTP student selection was carried out from Canada by CBIE as mandated by FME agreements. Two considerations might have played a part in NTTTP student selection. Most educational programmes by Nigeria's Federal government are carried out on specified quotas for all the nineteen states in addition the Federal territory. So in the selection of community college graduates for NTTTP, two major factors come into play. One was the political - the Nigerian state representativeness of NTTTP students; and the individual - the academic qualification of each candidate, irrespective of field of study.

It does not appear that the technology program area from which students graduated played a significant role. Neither is it apparent that particular development need for the country was used as a guide for student selection and placement (Craig, 1981; Miller, 1982). Also it appears students interested in teaching as a career were not directly assessed in the selection process.

Student Population

The population of Nigerian students selected for the NTTTP were Canadian community college graduates of the NCTEP. The first badge of September 1982 and second badge of September 1983 NTTTP entry periods were selected from among the 317 students who graduated between May 1982 and up to and including June 1983. Two hundred and ninety-five (295) graduated from colleges and 22 from universities (CBIE, 1983, p. 4).

> ... the 317 graduates represent 41% of the original 770 students who participated in the Crash Programme. ... 246 of these graduates received technology diplomas, 49 students received diplomas in business or science programmes and the remaining 22 graduated from the universities (CBIE, 1983, p. 13).

Only college graduates from among the 295 were selected for the NTTTP. These students obtained certificates and diplomas in a variety of programs and represented all the Nigerian states.

Selection of NTTTP students occurred during the two summers within the period of May 1982 and after June 1983. This implies that the bulk of the students selected for NTTTP were from the 295 whose results were analysed and reported by CBIE (Morton, 1983, p. 34; CBIE, 1983, p. 29-30). These results are discussed in this section. The results show that the students selected were quite above-average in their overall ranking at college graduation.

Students' Area of Technology Specialization

Of the 295 graduates that formed the population from which NTTTP students were selected 246 (83%) specialized in technology programmes (CBIE, 1983, p. 7). The single largest group was in Civil Engineering Technology. It accounted for 19% or 47 students. Other technology programmes with substantial numbers were Mechanical Technology with 27 students and Chemical Technology with 25 students. Architectural Technology had 18 graduates during the May 1982 to June 1983 graduation period.

There were 49 students who graduated in non-technologies, mostly in business or science programmes. Twenty-three students (46%) graduated in Business Administration. From this report it can be seen that the

graduates in technology programmes formed the bulk of those selected to participate in the NTTTP.

Nigerian State Representativeness

Each state had majority of its students graduating in the technology programmes. According to CBIE report:

> Every state listed (in Appendix KM Ref. p. 30) has the majority of its students in technology programmes. As can be seen from the total of students per state, there is no one state with an overall majority of students. The two largest concentration of students came from a state in the south and a state in the north, yet these groups form only eight and seven per cent respectively of the total graduate body (CBIE, 1983, p. 7).

Related to students selection the deduction from this report are twofold. One, technology graduates would constitute a great majority if random selection was used to select qualified and suitable candidates. Two, all but two Nigerian states, one in the north and the second in the south with greater numbers will be proportionately represented ceturus paribus.

The Nigerian college graduates CBIE scrutinized for the May 1982 and June 1983 report "originated from the nineteen Nigerian states and the Federal District" (CBIE, 1983, p. 9). CBIE study of 1982-83 technology graduates revealed, "the correlation between concise number of students and their state of origin" (CBIE, 1983, p. 9). The report indicated satisfaction, that there was little dichotomy between the numbers of students and the states of origin. This "suggests that no one state holds an overall majority either in quantity of students or by numbers of students enrolled in specific programmes" (CBIE, 1983, p. 10).

The implication of the representation is that the potential NTTTP students originated from all parts of Nigeria. If proper selection applied as noted earlier and awards are accepted accordingly that population would be representative of the Nigerian Federation.

The attainment of state representativeness in NTTTP was feasible given the process of student selection for NCTEP.

> The selection of candidates for the Crash Program was done in two stages. There was initial screening of applicants by a selection committee of the individual State Ministries of Education. They selected 80 to 100 candidates. From there a selection team of 6 Canadians from Canadian educational institutions and 6 representatives of the Nigerian Federal Ministry of Education chose 25 individuals from each state plus 25 others from the Federal District. In the first year a total of 500 were selected and 54 others were put on the waiting list. However when the first group of students arrived in Canada there were 406, 94 short of the original number.
>
> Using the same selection process the following year another 383 students out of an original 400 arrived in 1979. (CBIE, 1983, p. 10).

With this process each state would appear to have had the opportunity to be adequately represented. From CBIE analysis of the 295 technology graduates of May 1982 and June 1983 graduation year the process of representation appeared to have been achieved. Thus NTTTP student sample were selected from a population of Nigerian students who represented probably all major geographical parts and ethnic cultures of Nigeria.

Morton (1983) confirmed this when she discussed the advantage of Canadian Nigerian program over those in other countries. She stated:

> Other programs chose only those students who met entrance requirements, this meant some Nigerian states were not represented. In contrast, the CBIE

> program had balanced representation from all states irrespective of their academic backgrounds. The colleges designed courses to shore up academic weaknesses and give credit to academic strengths p. 32).

The result of this process was students from all the states went through the NCTEP in Canada and chose a wide variety of fields for their specialization.

Canadian Community College Academic Rating

The Nigerian community college graduates performed academically well at graduation from technology programmes. The program administrator summarized the students performance thus:

> As a whole, then, the Nigerian college graduates between the period of May 1982 and June 1983 have performed remarkably well. The majority of students in every programme have graduated with good marks, regardless of the particular demands of their courses, which suggests that the attitude and aptitude of the students involved have contributed greatly to the positive results ... (Morton, 1983, p. 36).

The Nigerian college graduates obtained encouraging academic standing overall. Thus, NTTTP students comprised academically capable NCTEP graduates.

Selection Process

The processes for selecting NCTEP graduates for the NCTEP was similar. The selection was usually carried out in the summer after confirmation have been received as to who was graduating from the college and as such eligible to be considered for the NTTTP.

For selection of students three related agencies were involved. The college from which student graduated, CBIE the program

administrator, and the university authories, with the approval of FME, the program sponsor. As Morton (1983) recalled:

> Throughout the summer of 1982, CBIE canvassed the technical colleges. It requested the institutions to evaluate the 1982 summer graduating students and recommend those most academically suited for the NTTTP. From their recommendations, CBIE was able to establish a long list of potential candidates. The list was submitted to the Federal Ministry of Education for approval.
>
> Out of the original 75 candidates, the FME selected 30 and requested CBIE to select each candidate from Sokoto, Lagos and Niger States for a total of 33 students. However due to delays and absentees, the final number was 24, divided evenly between the University of Manitoba and the University of New Brunswick (p. 37-38).

From the process of student selection stated here by the program administrator for the first badge of NTTTP clientelle a number of issues emerge.

NTTTP: Curricular Context

Two provincial universities, one each in Manitoba and New Brunswick, participated in the implementation of the NTTTP. The two institutions selected were "institutions which have had a long history of preparing prospective instructors for the education and training institutions of their respective provinces" (LeBlanc et al., 1986, p. 4). The purpose of the NTTTP was to provide Nigeria with qualified "technical teachers to serve in technical and allied institutions" (Ukiwe Speaks, 1985, December 2, p. 5). Since NTTTP lacked specific objectives, its intent was translated to the goals and objectives of the two B.Ed degree programs for NTTTP implementation in Canada. As Cap and Judt (1984) noted:

> The immediate goal of this project is aimed explicitly at providing Nigeria with a calibre of well-trained vocational-technical teachers. The long range goal is to increase the number of skilled tradesmen who would attract industry and reduce unemployment (p. 1).

The two institutions were mandated to develop a vocational technical education program which would lead to a Bachelor of Education (B.Ed.) degree for effective teaching in Nigerian schools (LeBlanc et al., 1986; CBIE, 1982b).

The long range objective of the NTTTP was to provide Nigeria with a pool of trained vocational/technical teachers. LeBlanc and Cap (1986) identifies "the objectives of the two degree programs" as follows:

1. To provide related and academic knowledge and skills to enhance the students' background for vocational/technical instructor preparation.

2. To provide pedagogical, professional knowledge and skills related to the effective preparation of instructors in vocational/technical education.

3. To provide the opportunity for Nigerian technical students to obtain a recognized Bachelor of Education (B.Ed) degree (p. 6-7).

The intent of NTTTP, therefore, was to prepare teachers for vocational teaching in Nigerian vocational/technical schools (Peretmode & Maigari, 1985).

Two of the program inputs, apart from the training cost which was almost the same in the two settings, were the program clientele discussed earlier and the program duration. The contract between CBIE and the two institutions stipulated a training period of two years (24 months). The program interns were the Nigerian students graduating from Canadian community colleges.

The program duration specified was based on students' previous

academic qualifications. As LeBlanc et al. (1986) noted:

> During that period of time (24 months) the students were required to complete all degree requirements. Time restraints were based on the fact that the Nigerian students would be graduates, or have equivalent qualifications, of a two year technology program from a Canadian community college. This would make these students eligible for advance credit. Advance credit was a very important feature of the program. With this advance credit it would be possible to complete degree requirements within the two year period stipulated in the contract (p. 4).

The community college diploma set the parameters for each B.Ed program. With the 24 month duration, both came together to dictate the type of B.Ed program designed in each university for the individual students. Regarding each B.Ed program design LeBlanc et al. (1986) observed:

> Another important fact to note is that restrictions such as time period, made the design of a "tailor-made program" imperative since courses not normally scheduled had to be offered during May to September time period. This also required the adjustment of the degree format to compensate for a wide variety of required courses, teaching and industrial experiences. These had to be provided in such a way that they would be in harmony with the regulations of the respective institutions (p. 5).

Each B.Ed, at each setting was consequently modified in some sense to satisfy program needs and each university degree requirements.

Conditions of Admission to B.Ed Programs

The UMAN/RRCC authorities jointly approved of the NTTTP training endeavour on the understanding that CBIE agreed to some specific conditions. Though these conditions did not appear to be known to student before registration. The plan drawn up in Manitoba was communicated to CBIE June 24, 1982 (Cap & Judt, 1983) and modified to

apply to both B.Ed programs in the two universities (LeBlanc et al., 1986). The original correspondence by UMAN program coordinator appeared in Cap and Judt (1983, pp. 98-99). It was partly reproduced in Cap and Judt (1983, p. 1-2) and Judt and Cap (1984, pp. 1-2). UNB did not appear to have its own separate independent plan. As modified and accepted for the two universities the plan stated that program participants were eligible for admission and were administered according to the specified conditions reached between CBIE and the participating institutions.

Practical Components and Student Remuneration

In its May 1984 Annual Progress Report (CBIE, 1984) CBIE stated in respect of practical experiences that for UMAN program:

> ... During May-September the students were enrolled at Red River Community College as well as provided with an opportunity to gain practical experience by being placed in various industries related to the students' technology background (p. 9).

and for UNB program:

> During the summer months, the students complimented their course work with teaching experience in local high schools and colleges (p. 10).

The students' activities described here to the sponsor reports NTTTP program processes for the first group - "Technical Teacher Training Program (TTTP) 1" (CBIE, 1984, p. 9). The summer referred to was that of 1983. CBIE confirmed that the second group of students were enrolled "in the same program as that arranged for TTTP 1 students" (CBIE, 1984, p. 12). Sponsor or others readers need believe that the program components reported obtained for both first and second groups.

For a more detailed description of the two B.Ed degree programs

that constituted NTTTP in Canada, refer to LeBlanc et al. (1986, May). Appendices B and C also contains some information on the B.Ed degree program formats of the two universities which were utilized for the Canadian NTTTP implementation.

NTTTP Implementation: Perception Study Context

To study the implementation effort of Canadian NTTTP a conceptual approach was used which viewed perceptions as students' judgements of the program offering. It comprised a structural and theoretical perspectives. The structural framework discusses the concept of the perceptions study based on Stufflebeam's (1969) context, input, process, and product (CIPP) approach to evaluation study. Behavioural premise of perception theory is discussed to provide the theoretical framework for the study.

NTTTP Study: Structural Framework

Based on the purpose of this study, an evaluation approach was chosen as its appropriate and suitable framework (Pautler, 1979). Patton (1980) and Finch and Crunkilton (1979) provided the plans that were deemed adequately applicable for this investigation.

Patton (1980) suggested that the implementation of an educational program should be studied by collecting information based on the activities provided to, and experiences of the participants. Information in this regard is usually collected through a personal interview (Pershing & Demotropoulos, 1981; Denzin, 1978). A survey methodology is appropriate for such educational studies (Kerlinger, 1964).

is appropriate for such educational studies (Kerlinger, 1964). Therefore the evaluation structural framework for this study took into account the intent of the NTTTP, the process of its implementation and the resulting outcome of the endeavour.

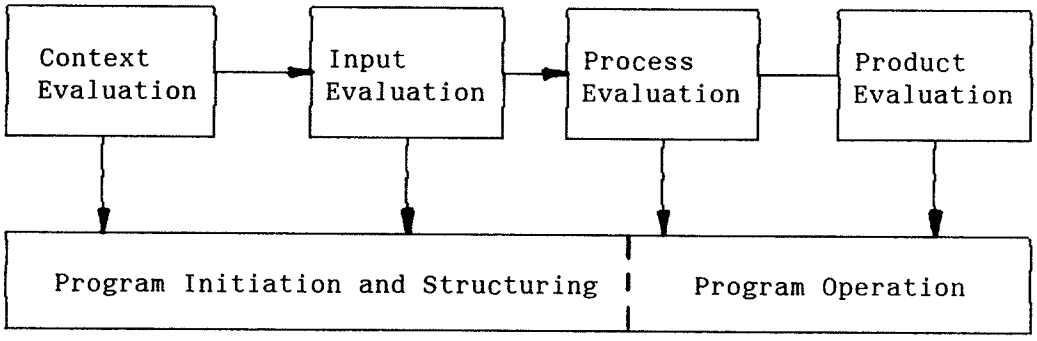

Figure 2.2. Structural framework for NTTTP process-product student teachers' perceptions study.

Stufflebeam's (1969) model of curriculum evaluation served as an adequate approach based on Finch and Crunkilton's (1979) modification. This model suggests the study of program evaluation on account of the program's context, input, process, and product (CIPP). NTTTP implementation effort involved the provision of B.Ed curricular activities and experiences to Nigerian students in two university settings (see Figure 2.2). Context, input, process, and product have been espoused by Stufflebeam (1969) and reiterated by Finch and Crunkilton (1979) as the key components of systematic and meaningful program evaluation "especially when information is gathered for decision-making" (p. 248). These four components are described in this section. A discussion of their application in this study is also provided.

Context Evaluation

Context evaluation refers to the training environment in which the training endeavour occurs. It includes what general goals and specific objectives applied or were incorporated.

> Specifically, context evaluation may define and describe the environment in which the curriculum (program) will be offered, identify needs that have been used and pinpoint constraints that keep them from being met (Finch and Crunkilton, 1979, pp. 248-249).

Context evaluation as conceived in this study was used for the NTTTP contextual description.

Three contextual environments were described - the international context; the Canadian context; and the B.Ed degree institutional (universities) context. The international context discussed the issues of concern in cross cultural technical education involving developed and developing countries. Canadian context of NTTTP described the educational factors which might have affected the NTTTP implementation in Canada. Discussed in Nigeria-Canada connection were issues regarding educational assistance and the role of the Canadian non-governmental organization (NGO), specifically CBIE, the designated administrator of the two related Nigerian programs. A third context provided a few factors of the B.Ed degree curriculum provisions as reflected in the major B.Ed. degree components, activities and specific courses or subjects available to the NTTTP students. The description referred included special provisions such as the number of credit hours advanced and curricular flexibility for engineering electives.

Issues relating to context evaluation would usually include questions of the student population which the program would serve; and

the industrial, business or government concern that would benefit from the training effort. "What content would be included in the curriculum? What goals should the curriculum have? What objectives will be used in the curriculum?" (Finch & Crunkilton, 1979, p. 24) are a few of the questions asked. For this study the contextual factors described ranged from the intent of the program as vocational teacher training effort to the content and organization of the B.Ed degree curriculum (see LeBlanc et al., May 1986).

Input Evaluation

Input evaluation served to aid the trainer in making more objective decisions about the ways content might be provided to students. Finch and Crunkilton (1979) states that "input evaluation is used to determine how resources might be utilized to achieve curriculum objectives" (p. 249). For the NTTTP the 24-month duration was considered as a special input. Its limitations affected the type and sequencing of program experiences and consequently the attainment of NTTTP intent (LeBlanc et al., May 1986). Other resources applicable included the cost of implementing the program. This was similar for both B.Ed programs. Credit hours awarded to students based on previous studies placed students clientele here as a form of input. Input evaluation was discussed in this study under NTTTP contextual description as was context evaluation, and process evaluation.

Process Evaluation

Process evaluation refers to the instructional program, in this case B.Ed experiences, the curriculum and the activities provided at

each setting to the NTTTP students. Some questions associated with process evaluation include the cost of implementing the program, the performance of the clientelle as well as the quality of instruction and support personnel. Others were: "To what extent are the students satisfied with their instruction? Which if any of the curriculum components are deficient?" (Finch and Crunkilton, 1979, p. 251). Due to the nature of this study, issues about process evaluation were examined rather than described as a result of the lack of adequate knowledge of the curriculum issues in the two settings by the investigator. Thus, this study was mainly conceived as a process-product (PP) evaluation.

Product Evaluation

Product evaluation would normally utilize information from former students (Finch & Crunkilton, 1979; LeBlanc et al., 1986). Such situation did not exist for this study. This was the first time Nigerian community graduates from Canadian community college were trained for vocational teaching. The first group of graduates which graduated a year earlier were either not yet settled for employment other than serving in the National Youth Service Corps (NYSC) in Nigeria or were elsewhere for further studies.

Product evaluation questions such as how adequate was the curriculum preparing NTTTP students for job entry (Finch & Crunkilton, 1979) were examined as perceptions from present graduates.

> The question of "which is better?" can only be answered in terms of a given context, specified levels of input and a given outcome criteria (LeBlanc et al., 1986).

For this study it was assumed that the context, inputs and processes

external to the two B.Ed programs were similar. The variation that would be evident from students' perception would, as a result, reflect the different levels of context, input and criterion factors that obtained at the two separate settings - UMAN and UNB.

Process/Product (Outcome) Study

Conceiving the investigation as a process/outcome study enabled the investigator to seek and establish linkages between B.Ed program processes and outcomes. Seeking to establish linkages between processes and outcomes is to venture into the arena of causality, relating cause to effect, which Patton (1980) contends is to undertake the task of theory generation and verification. This study did not necessarily seek to generate but to verify a theory - perceptions of NTTTP students.

For either or both purposes, Patton (1980) suggested the most common causal questions in research of this nature are:

> Does the implemented program lead to desired outcome? Or, what is the relationship between program activities and observed effects? Do the processes, activities, and treatments of the program cause or affect the resulting behaviors, attitudes, skills, knowledge and/or feelings of program participants (Patton, 1980, p. 276).

These questions served to enable investigator categorize, classify and analyse the students perceptions response data, both quantitatively and qualitatively.

If theory or hypothesis evolves Patton (1980) has argued that evaluative (process/outcome) research is by no means inherently non-theoretical. Indeed, he suggested, theoretical issues could be important in a process-outcome investigation in three ways.

First, evaluators have a responsibility to make as

> explicit as possible their own theoretical predispositions and to examine how those predispositions may have affected their observations and analysis. Second, evaluators doing qualitative analysis have a responsibility to report and explain whatever causes and consequences emerge during data analysis, clearly recognizing and stating that such theoretical linkages are speculative, and taking care to ground theoretical perspective in the emperical world, thus letting the theory emerge from the data. Third, evaluators can use qualitative data to help decision makers and information users reality-test their own theories of action about the linkages between program and program outcomes (Patton, 1980, p. 279).

As suggested here, the theoretical approach, perception theory, will be discussed in the next part of this section to illuminate the theoretical perspective of this investigation.

In the analysis of the data attempt was made to establish the linkages between program processes inductively from qualitative data in order to explain the response categorization of quantitative responses. The purpose of this study was to collect and analyse adequate information about the NTTTP for a more effective implementation of future NTTTP effort or similar programs. The structural framework of process-outcome evaluation provided a basis for generating such required judgemental statements that would hopefully be useful for program decision makers to improve NTTTP implementation.

As illustrated previously in Figure 2.2 program initiation and structuring, comprising context and input evaluations, were presented in the NTTTP contextual description in the second part of this chapter. Program process and product evaluations, constituting program operation, formed the focus of this study as discussed in this section. The purpose was primarily to obtain information from students to benefit

program operation even though, in the process, program initiation and structuring may also benefit, since both are related.

With evaluation as a structure, many different aspects of program implementation could be invested. In international education, these aspects might include cost - its effectiveness, or who pays for what in the education of foreign students; the end product - where do the students go on graduation; and the benefits - who benefits in the education of foreign students, the student, the sponsor, the host country or others (Craig, 1981). This study did not investigate any of those, but the perceptions of the students with respect to the B.Ed program operation (curricula administration). It investigated the relevance and effectiveness of the curricula content and appropriateness of the experiences. Thus, the theoretical content of this evaluation effort was students' perceptions. As a result a theoretical perspective of perception was provided.

NTTTP Study: Theoretical Perspective

This part of the literature review discusses the theory of perception as used to guide this study. A definition of perception is established. The application of perception in this study is also discussed. Perception as conceived here comprises three main dimensions - the external stimuli of B.Ed program experiences, the internal individual perceptual models, and the interaction between the two, that shaped student responses. For this discussion perception will be considered from its social psychological premise based on behavioural contentions of impact-response process.

Concept and Factors of Perception

Dember (1960) contends that perception cannot be vigorously and thoroughly defined by itself because it is not a precise scientific term. "It is a facilitator of communication" (Dember, 1960, p. 2). Perception is used for this study to enable the investigator to communicate to the reader of this thesis some information from interviews on a particular topic (NTTTP implementation) guided by a common theoretical concept of perception.

Perception is the act or faculty of apprehending by means of the senses, or of the mind: cognition, understanding (Random House Dictionary, 1973, p. 985). Perceiving is becoming aware of, knowing, or identifying by means of the senses. Perceive therefore means to apprehend, envision or understand. These terms are used here to discuss perception. This particluar description contributes at least three factors to the concept of perception implied in this study.

Firstly, in the process of perception there is the act of apprehension by the organism. Secondly, the apprehension employs individual senses for processing. Lastly, perception or apprehension involves the use of the mind for analysis. In this context perception occurs in the mind from felt stimuli impingements through the use of the senses. Therefore perception is the link between the physical and mental functions of the individual (Burkett, 1980).

Individual Dimension of Perception

Perception is "a sensation together with a context of other experiences that give it meaning" (Klosmier, 1961, p. 7). It is a process that occurs within individuals according to their own internal

set. To be studied effectively, investigator should "place perception within the context of man's general need to adapt to his environment so that he can cope effectively with the demands of life" (Forgus & Melamed, 1976, p. 1). Perception therefore becomes a personal matter, and each individual will perceive of the same stimuli or NTTTP experiences in different ways.

Collective similar perceptions from interviewees will in this contension reflect adequately the nature of the perceived NTTTP stimuli that applied to each group. In addition, the effect of NTTTP experiences in relation to individuals' needs and plans would be revealed. Revealing how the B.Ed experiences related to participating students' future plans facilitated the assessment of the attainment of the purpose of NTTTP-adequately preparing vocational teachers for Nigerian secondary schools.

External Stimuli Factors

Perception comes into consciousness when stimuli from the outside impinge upon the organism (Kelly, 1955). Therefore, only those stimuli present in the organism's environment would elicit response from the individuals. The external dimensions of perception relate not only to the availability but to the type and strength of the stimuli that impinge upon organism to elicit a response.

> But the response which is what we observe is influenced not only by perception but also by other factors, such as, presentation probabilities and outcome structures. These later factors combine to produce response bias which is a characteristic of behaviour largely unrelated to the perceptual aspects of the tasks (Fellows, 1966).

Thus, even when individuals perceive experience in a similar manner, the

factors associated with its presentation could affect individuals' responses. Such varied probabilities could be social, financial, and legal as in the case of policies or regulations. Social structures could involve persons or institutions that interacted with the B.Ed. participants. In the NTTTP study therefore, not only would the type but the nature and strength of each B.Ed experience would affect respondents perceptions since the "response are influenced by these background stimulations" (Galanter, 1962, p. 111) affecting program participants.

Students' Perceptions and Social Structures

Perception is affected by the relationships between people and various social structures as well (Lindesmith, Straus & Denzin, 1975). Many of the perceptions held by the students interviewed about the NTTTP would no doubt be affected by the interaction and relationships of the respondents with their environmental program experiences and factors. These external structures would include their colleagues, administrative agents and program experiences, and provisions. Other social structures affecting respondents' perception would include students relationships with organizations and institutions such as CBIE, NHC and FME as well as the universities and their related authorities.

Internal Perceptual Factors

Some of the internal perceptual factors of perception deemed applicable to this study included organism's readiness to perceive its growth or age, previous learning and past experience as well as future goals and expectations. Bruner (1958, p. 90) contended that perception can only take place in a "tuned organism". It was assumed in this study

that both groups of organisms (Nigerian Students at UNB and UMAN) had perceptual readiness to perform the act of apprehension. They accepted NTTTP awards and went through the experiences of the program. They were tuned in each group to similar program component experiences (each B.Ed goals and objectives) and were motivated by the same terminal objective (graduation with B.Ed degree) for vocational teaching.

Forgus and Melamed (1976) sees perception as a superset which subsumes the subsets of individuals' past experiences: learning, memory and thinking. Perception is here regarded as the process by which an organism receives or extracts certain information about the environment. Learning is defined as the process by which this information is acquired through experience and becomes part of the organism's past storage of facts in memory.

Thus, the result of learning facilitates the further extraction of information since the stored facts become models against which cues are judged. The NTTTP student teachers who had had previous work experience or classroom teaching might perceive these NTTTP components differently from those with no such previous experiences. Perception information in this case reflected some personal matters and attitudes. Such information are better collected through interviews (Pershing & Demotropoulos, 1981).

Thinking and perception affect one another. The complex problem of thinking is an activity that is inferred to be going on when an organism is engaged in solving problems which also involve the use of models. The solution of these complex problems requires the use of mediating symbols like language. The way we extract abstract or more hidden

information is to learn to use concepts (Forgus & Melamed, 1976, p. 3). With regard to the NTTTP some hidden information as might be possibly perceived by the participants were not readily available to the investigator. Such information included NTTTP goals and objectives which were not specified. But the study was designed to generate information for the improvement of the total program regarding its perceived goals, objectives, focus and implementation strategies. Therefore, the bulk of these type of required information would be provided to the investigator by respondents in form of complex concepts through open ended question items.

Value and value orientation affect individuals' perceptions. Postman, Bruner, and McGuinnis (1984) concluded that whatever the stimulus might be, the perceiver favoured the presolution hypothesis which reflects his value orientation. "He will therefore perceive most readily stimulus objects which lie within the same value area as his preferred presolution hypothesis" (p. 143). For the NTTTP, this value orientation was interpreted to relate closely to respondents value position about teaching as a career, and industry related occupations.

Based on this factor in perception, it was assumed that those who preferred teaching would receive and analyse information that related to classroom teaching for a consequent positive perception. On the other hand those who needed to be educated for work in industry would seek for and appreciate those program experiences that reinforced their value positions about the objectives of NTTTP and their intended career orientations.

Selection and Extraction of Information

Personal factors of perception enable individuals to select extracted information for analysis. Forgus and Melamed (1976, p. 14) defined perception as the process of information extraction. Also Fellows (1966) presented perception as a component of information "discrimination" process. Discrimination or extraction imply selection. Thus students relationships with program agents and components were bound to affect the type of information they sought and received or even extracted when voluntarily given.

Thus perception of the NTTTP would be affected by the reasons for which the interviewees accepted the NTTTP award. Also the degree to which those goals were being met through the program would play an important part in their perceptions of the NTTTP. The effect of the program's experiences in their future occupational needs and plans were considered elements of adaptation that would influence the extraction of information and consequently their perception at the time this study was conducted.

> Our perceptual equipment helps us relate our past experience to our present situation. It helps us select what to pay attention to ... It helps us fill in missing data about our environment. It helps us defend ourselves against serious threats. In sum it helps us create and maintain a sense of relative order and constancy in a world of complexity and change (Bobbit, 1978, p. 128).

Past work experiences, type and level of educational attainment and their college industrial experiences as well as occupational objectives and similar issues were considered as factors of built-in programs that would affect their perceptions of the information received and processed during the two year duration of the NTTTP. Perception has its own

peculiar qualities among which are that it is an input-out process and the output could be labelled as positive or negative. Thus the input quality determines the output perception (Dember, 1960).

Perception is not a static process since perception of the stimulus at two different intervals of time may be quite different to an individual (Cole, 1939). The differences in perception at various times and developmental stages (Forgus & Melamed, 1976) was deemed to be accounted for by changes in attitude that occurred as a result of learning and continued accumulation of experiences. The nature of perceptual reactions is increasingly influenced by growth. Built-in or unlearned programs (models) were necessary for adaptive behaviour to begin. But "the programs became modified with growth development, experience and varied sensory stimulation" (Forgus & Melamed, 1976, p. 2). Aside from growth, development, and experiences, the effect of time element would be associated with the situation in Nigeria as at when the respondents accepted the award and graduated from the programs.

Definition of Perception For This Study

The definition by Hilgand, Atkinson and Atkinson (1975) incorporates major qualities of perception described in this section. To them:

> Perception is the process of becoming aware of objects, qualities, or relationships by way of sense organs. While sensory content is always present in perception, what is perceived is ... the result of complex patterns of stimulation plus past experience and present attitudes (p. 610).

From the discussion it has been shown that individual extracts and

analyses information from a stimuli for a (favourable) positive or negative (unfavourable) response about a stimuli with the use of the sense organs. The extracted input and output responses offered are based on individual built-in mechanisms of values, growth, development, learning and past experiences to help individuals adapt and cope with life. The process and response change with time and prevailing conditions.

Formulated on this description of the nature and qualities of and factors affecting perceptions and based on the stated definition, the following stated definition applied to this study. Perception was defined as extraction and analysis of information from outside stimuli with the use of sense organs for a positive or negative response about the stimuli basing such extracted and analysed input and consequent output on individual's built-in mechanisms of values, growth, development, learning and past experiences, with the phenomenon reflecting individual needs to adapt to life and cope with changing circumstances, and changing with prevailing conditions and time.

Summary of the Review

As discussed in this section, NTTTP was implemented within the context of international education. It was seen as a contracted technical education program between a developing and developed nations - Nigeria and Canada - with its concomitant concerns. A Canadian administrative agent, CBIE, was chosen by FME to administer the program. It was discussed that CBIE acted on behalf of the sponsor, FME, before the training partners UMAN and UNB as well as the students. This section disussed both the international and the Canadian contexts of the implementation and their related technological and cultural concerns.

It has also discussed the role of the CBIE.

The program was studied within evaluation context through student perceptions. Stufflebeam's (1969) Context, Input, Process, and Product (CIPP) Model was described as applied for the structural framework and perception theory was discussed. The focus of the study was shown to be on the process and product (PP) of the model, with particular emphasis on the process components. Both the nature and factors of perception that could have had an effect on the study were presented. A definition of perception used for this study was established, and it was noted that the perception study within the context of evaluation is necessarily exploratory and its findings inconclusive.

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this chapter is to describe the research methodology utilized by the investigator. The discussion on methodology covers within-method survey triangulation and quantitative and qualitative data triangulation. Instrumentation covering interview design and conduct includes schedule construction, revision, validation and pilot testing is discussed. Also presented are the data collection procedures and the techniques for data categorization analysis and interpretation.

Design of The Study

The structural framework identified this study as a process-outcome evaluation study of the NTTTP implementation effort. Structured on-site personal interviews were used to collect data in respect to selected components of NTTTP. The study employed within-method survey triangulation to study students' perceptions of the program. It is an accepted practice that how a study is designed and conducted is determined by the purpose of the study (Casey & Sowell, 1981) and by the use for which information derived is intended (Henderson, Gommes, & Patton, 1983). The purpose of this study was to investigate the perceptions of a sample of Nigerian student teachers with respect to their NTTTP (B.Ed. degree) experiences.

Research Situational Factors

There were various factors in the research situation that suggested a survey triangulation. First, there were two B.Ed. degree programs at different settings. Each of the B.Ed. programs could be studied seperately using either descriptive technique, or evaluative strategy for process-outcome effects (Denzin, 1978). The purpose of this study mandated that both be investigated together. That feature led to a comparative strategy incorporated in the design of this study.

Second, both situations existed and were not created by the investigator for this study. There was also the need to study the effects of the program experiences at the end of the implementation processes. That necessity too warranted a one-short data collection technique. A descriptive survey satisfied the methodological design (Fox, 1969) for this situation.

Third, studying effectiveness of program implementation warranted evaluative comparison of the two programs (Fox, 1969). The processes of each B.Ed. degree programs were studied for their outcome effects on graduates and on the purpose of NTTTP. Reasoned judgements from respondents of program outcomes from processes were arrived at primarily through evaluative research technique.

With the need to study both programs together descriptively and evaluatively, a comparative survey triangulation was chosen.

Fourth, the investigator was a former graduate of the NTTTP. This investigation was conducted while still studying in the same university. Two issues are associated with this factor. One, there was the expectation of collegial relationships. That closeness between

investigator and respondents from one group could pose a problem to reliability of data (Jope, 1980). In addition it could also increase or decrease the response rate depending on the investigators' relationships with the sample in that group.

Two, there was an identified dearth of information in the area of investigation. As a former student in the program, the investigator had personal knowledge of the NTTTP program implementation. In this case, the investigator's closeness to the area of investigation became an asset; but moreso for one setting. That personal experience of the implementation process enabled the investigator to select approximate program components pertinent to effectively answer suitable research questions, adequately chosen to produce valid data for the study. There, however, lay a problem of bias and reliability. Smith (1975) contended, though, that "validity is a more important criteria than reliability" (Jope, 1980).

These conditions extant in the research situation called for data, and collection techniques that minimized the reliability, objectivity and validity concerns of the research effort. Quantitative (for precision) and qualitative (for elaboration and explanation) become essential. Investigators knowledge of both B.Ed. situations was essential enough to warrant on-site personal interview with each respondent.

Survey Methodological Triangulation and Data Analysis

This study employed within-method survey triangulation (Denzin 1978), to investigate NTTTP students' perceptions. For this research design, the investigator took "one method, the survey, and employed

multiple approaches within that method to examine data" (Denzin, 1978, p. 301). Three strategies satisfied the intent of this survey triangulation as shown diagrammatically in Figure 3.1. These were the comparative, descriptive and evaluative survey techniques (Kerlinger, 1964). It was feasible to combine all three (Fox, 1969) to minimize the limitation each one strategy would have had for this research situation (Denzin, 1978). The strengths of each method and data were meant to counteract the shortcomings of the other. Both qualitative and quantitative data were collected for this study.

The "conic" or "pyramidal" concept enabled the identification, sieving, and sorting out, as well as describing various factors and components of the two B.Ed degrees.

The purpose of the analysis, and consequently the findings reported in Chapter V, was not to compare the B.Ed degree programs for judgement. Instead, it sorted out what students' responses and perceptions were positive or negative, according to each question form and sections. It identified which of those constituted respondents' perceived strengths or weaknesses of the B.Ed degree program based on the established intent of the NTTTP training effort. Nevertheless, the comparative/evaluative analysis "pyramid" produced findings which could enable program administrators to determine which of the two B.Ed degree programs contained greater positive or negative features in relation to the prime purpose of NTTTP.

Since the data analysis was based on the identified areas and components of NTTTP implementation, the selected components formed the base of the conic representation. The survey techniques - descriptive,

CONIC CONCEPT OF ANALYSING DATA

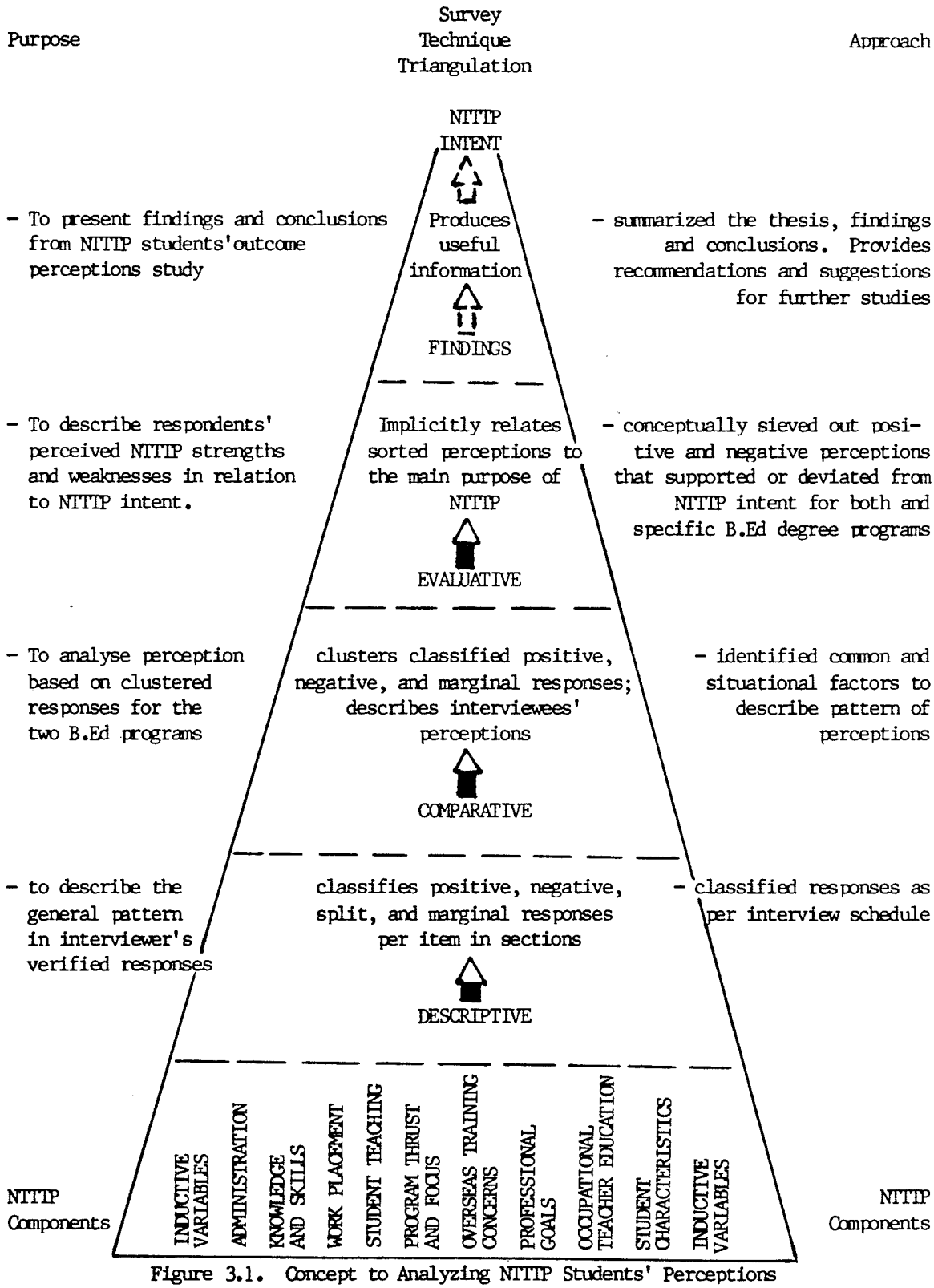

Figure 3.1. Concept to Analyzing NITTP Students' Perceptions

comparative, and evaluative-triangulation served to focus the analysis of data to NTTTP intent. Along with the survey triangulation approach, both quantitative and qualitative data were used together in relevant sections to achieve the logic and to realize the advantage of data triangulation (Meyers, 1981). Both quantitative and qualitative analyses were presented together to minimize repetition.

Population and Sample

The target population identified for this study consisted of the two groups of Nigerian student teachers enrolled in the NTTTP in the Canadian provinces of Manitoba (UMAN, n=19) and New Brunswick (UNB, n=17).

The study was restricted to include only the sample of students who enrolled in the program in September 1983 and were scheduled to complete their program assignments in August 1985. To identify the population that participated in this study, the names of program student participants were copied from CBIE's Annual Progress Report of Nigeria/ Canada Technical Education Program (1984, p. 138). The list was confirmed by the investigator in person with designated program coordinators in each of the universities in the two provinces.

Design of the Interview

A suitable and adequate instrument to collect data was not available to the investigator at the time of this research. A possible instrument "Study Abroad Programs: An Evaluation Guide" (NAFSA, 1979) could not satisfy the purpose of this study. In addition to being too comprehensive and elaborate, it required an evaluation team.

The Product of Instrument Construction

Exploratory interviews were conducted by the investigator with four program officials and three former NTTTP graduates at the University of Manitoba to establish problem areas and to generate potential questionnaire items. These interviews were completed by a review of program documents and relevant literature in the area of investigation. The interview instrument (Appendix D) had nine sections representing the construct areas. The sections, from one to nine, examined aspects of Administration; Knowledge and Skills; Industrial Experience; Student Teaching; Program Thrust and Focus; Overseas Training; Professional Goal; Occupational Teacher Education; and Demographics. The eleven page instrument had ninety-eight scaled items and sixty-five open end and free response items.

Panel of Experts' Reactions

The statements or questions derived for each of these program situations were submitted to a nine-member panel of experts. This committee was comprised of instructors in the University of Manitoba's Faculty of Education who were closely related to the NTTTP programs in administration or teaching. Consideration for choice of panel membership was also given to professors' experience in international education. They had the first week in July 1985 to review the instrument and provide suggestions.

A formal letter with instructions and definitions of constructive guided panel members. Each statement contains a single sided Likert Scale to measure the degree of respondents satisfaction or agreement with the statement. Others contained a yes/no options. Still others

were free and open-ended responses.

Panel members were requested to read through and review the instrument with regard to:

1.) appropriateness of instrument item;

2.) the question format;

3.) instructions and directions;

4.) item construction, grammar and spellings;

5.) response patterns; and,

6.) general content.

Additional comments were also requested from the reviewers. Implementation of their recommendations produced a final draft of the instrument which was then pilot tested.

Pilot Testing of the Instrument

The instrument was field-tested on July 15-23, 1985 with a small group of five Nigerian student teachers who had had similar experiences with the sample for the study. They all passed through NTTTP in Manitoba, being graduates of the program in 1984. They were at the time of pilot testing in graduate studies in Education at the University of Manitoba, Faculty of Education. Care was taken to ensure that the subjects used in the field test were not included in the sample for the primary study. Each participant in the field test was given the interview schedule with an attached cover letter and then requested to arrange for interview with the investigator.

The pilot test group was requested to:

1.) read through and edit the questionnaire;

2.) react to the questions/statements format;

3.) react to the response pattern;

4.) react to the general content of the questionnaire;

5.) complete the questionnaire; and,

6.) react to the time it takes to complete the questionnaire.

Participants were interviewed and their input sought by the investigator as soon as each of the interviews was completed. Item analysis was not carried out for this preliminary study.

Based on their responses and input, of the pilot test sample a revised final instrument was produced and submitted to the UMAN Ethics Committee for clearance. Clearance was also obtained from the UNB through the NTTTP coordinator at that university.

Data Collection

The data gathering plan was designed to suit the needs of research (interview), needs of correspondents (convenient time), criteria of cost (travel and lodging), and time for travel and interview encounter.

Preliminary information about each student teachers were sought from the co-ordinators by the investigator at the University of Manitoba and by correspondence and telephone from the University of New Brunswick.

Interview schedules were coded for site and respondent.

A covering letter was distributed to the student by the investigator as a means of making interview arrangements, and introducing the investigator and the study. Appropriate clearances were obtained from college and university officials.

Onsite data collection from student teachers by the investigator

was conducted in New Brunswick between July 29th and August 10th, 1985. Respondents in Manitoba were interviewed during their summer classes at RRCC between August 13th and September 3rd, 1985.

Interviews were arranged and carried out at respondents' convenience within the scheduled destination at each site.

Those students at UMAN and UNB who were absent from class were contacted by the investigator in person or by telephone.

Data Analysis

Data collected from the interview for this study were analysed in two ways according to the nature/type of information. This analysis was presented together within the triangulation methodological and data analysis framework.

i) Quantitative Data Treatment

Interview schedules were coded for university respondent and for sections and items. Individual variables were assigned numerical scores. The coded and scored data were entered in the University of Manitoba computer system (MANTES). Statistical Analysis System (SAS) programs were written to process these data for analysis. Category frequencies and percentages were produced on which initial interpretation was based.

ii) Quantitative Data Analysis

Preliminary analysis of frequency counts and percentages from crossbreaks was carried out on the data. Category frequencies and percentages were determined and compared among the two groups.

Based on the characteristics of the frequency distributions and percentages, further analysis was carried out to determine significance levels. Where the preliminary category frequency counts and percentages indicated large discrepancies between the groups further analysis with a non-parametric probability test was done. Only the variables on which group responses appeared to be "marginal" or "split", and could be contested, were further analysed and presented in the analysis. Such statistical test using non-parametric theory and mathematics was used in order to make the analysis process more exact (Hopkins, 1976). It also helped the investigator to know how much to depend on influences and to control the investigation (Tuckman, 1972; Hopkins, 1976). As well, it enabled the inferences to be depended upon (Kerlinger, 1964, p. 150-2).

A chi square (x^2) probability test was employed in this study. The test was to determine the significance levels of differences in groups' frequency responses on specific variables. In such cases, the investigator assumed "that the two groups differed with respect to some characteristic and therefore with respect to the relative frequency with which group members fall in the several categories" (Siegel, 1956, p. 104). The results of the x^2 test showed whether apparent differences indicated were statistically significant. Statistical significance confirmed differences and a split in opinions or characteristics between the groups. Lack of statistical significance at 0.05 level or under was described as "marginal" since this indicated insignificant differences among the two groups. The quantitative analysis established data classification categories to be verified (supported or discounted) by the qualitative analysis. In the analysis of these statistical tests

the significance levels of all results were reported variously and specifically for these items (Kerlinger, 1964, p. 154).

The results of statistical test were reported only for those items that required further analysis, and where the test was carried out. The tables for the x^2 tests on the scaled items are contained in Appendix E. These tables of the results of analysis in the appendix were considered necessary to show the process of investigator's analysis and justify the conclusions/results that were arrived at (APA, 1983, pp. 28-29; Kerlinger, 1964, p. 105).

Types of Qualitative Data

Two main types of response items generated qualitative data for this study. One set were open end questions soliciting information in respect of scaled quantified responses. The other set were free response items producing comments, suggestions, opinions and views. Each of these two sets were grouped in the same manner by the univeriate analysis technique. However, two slightly different inductive matrix analysis techniques were used. In each case inductive analysis questions were written, then inductive content analysis was carried out for the purpose of answering the research questions. Additional follow up use and questions were subsequently asked where data were not exhausted.

Quantitatively Established Categories

Qualitative data obtained in respect of scaled items were inductively analysed to explain the classification obtained by quantitative frequency/percentage categorization. For this analysis two

types of matrix categorization approaches were used. One, which had two dimensions was the one used in the high school dropout program "An Emperical Typology of Teacher Roles in Dealing with High School Dropouts" (Patton, 1980, pp. 314-315). The two controlled dimensions are listed on the two sides of the rectangle.

The second was the "Matrix of Linkages Between Program Process and Impacts (Patton, 1980, pp. 318-319). With this matrix, major program processes or identified implementation components are listed along the left side. Types or levels of outcomes are listed across the top. Cross classification inductive analysis seeks to link in this case the processes to the identified outcomes typologies (Patton, 1980).

Matrix Logical Analysis

For the purpose of analysing the triangulation (quantitative and qualitative) data the quantitatively established categorization was written at the top of the matrix. It served as a "controlled" dimension to focus process or outcome typologies inductively generated from the univariate data. Figure 3.1 represents the abstraction of a matrix resulting from the modification of the two matrixes suggested by Patton (1980) and used for this study. Various and separate inductive analysis questions were then asked to generate concepts, typologies from the data to explain the obtained quantitative pattern in answer to the analysis questions.

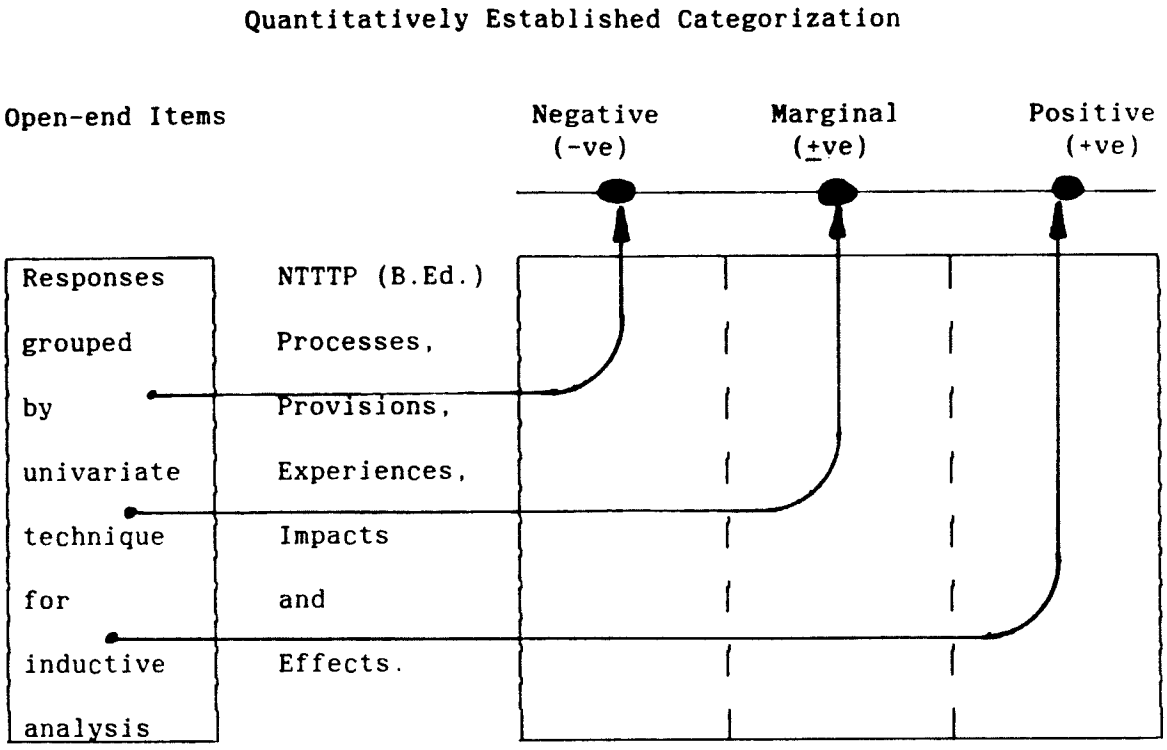

Figure 3.2 Matrix of Linkages Between NTTTP (B. Ed. Degree) Processes or Outcomes.

Analysis Questions

Analysis questions were asked seperately for each case of content analysis to generate either program processes, impacts or effects, and to discover variant or deviant cases of responses. Samples of such inductive analysis questions asked are included here:

1. What NTTTP process led to the quantitative classification of positive, negative or marginal responses obtained from interviewees?

2. What effects had the obtained positive, negative or marginal responses on the intent of NTTTP?

3. What other program processes were identified or suggested by respondents?

4. What were the identified or perceived relationship between each

program processes and outcomes?

5. What effects had these relations on the general purpose of NTTTP?

These and similar questions were used to focus the analysis; and to identify suggested measures perceived in respect of NTTTP implementation.

Free Response Qualitative Data Analysis

For qualitative univariate information that were generated by free response questions the controlled top dimension was removed. With the open top end of the matrix questions similar to c, d and e above were asked.

1. What were the program processes or provisions associated with the item variables?

2. What effects had these processes or provisions (experiences) on the respondents and/or the purpose of NTTTP?

3. What were the relationships (supportive or discounting) between the identified processes and outcome effects; and

4. What were the other processes/effects identified? How did they relate?

Analysis of deviant cases were used, when supported by findings from other areas of the analysis to make final decisions about findings and results of this study.

Data Categorization Schemes

Three typology classification schemes were used in organizing the data. First the typologies or phrases developed and articulated in the

programs by various NTTTP officials understood and used by program participants were employed to organize the presentation of particular themes. These approach was applicable where program goals or objectives for components or experiences existed or were generally accepted in professional practices. Examples of such components were student teaching and industrial work experience, relevance and similar typologies relating to program description and effectiveness.

A second scheme were interviewees-developed typologies and terms used for classification of data. These typologies were inductively extracted from the data based on respondents actual response representing process/outcome terminologies. These terms applied mostly for the activities where program administrators did not develop or have terms to describe them specifically. Respondents' own terms were therefore employed in these cases to describe the patterns that evolved from the interview.

The third category of typologies used for the inductive content analysis were investigator-developed. These were terms that were neither articulated by program participant and imposed before data collection, nor identified specifically by respondents. In this case investigator imposed terms used in the literature for the description of response patterns.

The process of labelling the various responses or parts of responses constituted the first step of data analysis. "Positive", "negative" and "marginal" categories established from quantitative analysis were used to classify the data. Secondly, each identified typology of the coded responses were classified in its appropriate

category using the respective code numbers, and written beside or above the concept itself or on the margins of the paper. Different colours were also used as were paper labels. The process was meant to ease identification of data. It also helped the investigator to keep track of data during the process of working back and forth through the information to ensure that all the responses were sorted.

Steps in Inductive Data Analysis

The typologies or variables sorted out to either explain quantitatively established categorization and/or link program processes and program outcomes, were derived inductively from the data collected from the interviewees. The inductive content analysis employing the matrix was carried out in the following manner by the investigator:

- Summed up all interviewees' responses per item in sections from the two groups together, according to site, using the univariate analysis (Babbie, 1973).

- Generated the typologies inductively based on responses from the students.

- Made comments on the margins and/or labelled the identified phrases, variables, or typologies as impacts or outcomes, according to the categories derived for classification (Fox, 1969, p. 601; Patton, 1980, p. 299).

- Wrote the program outcome impacts (types or levels) across the top and the program process typologies - variables, terms, components, activities, and similar expressions of process - along the left side.

- Constructed analysis questions to facilitate the search for typologies to link the process typologies to outcome typologies derived,

or to seek support for previously established categories in answer to analysis questions.

- Described the relationships deduced from the resulting linkages of established or identified relationships between the program processes and outcomes.

- Deviant response cases were inductively looked for and analysed through examination of unused data in an effort to help the analyst to create new categories for data classification (Patton, 1980).

- Cross-classified different dimensions or categories, resulting from analysis of deviant cases (side to top and top to side of matrix), to generate new insights about the organization and classification of data; and

- Tested analysis for completeness by reading through the data, as for initial labelling, and identification of process/outcome typologies.

Summary of Research Methodology

The preceding section on research methodology described, in some detail, the design of the students' perceptions study introduced in Chapter I of the thesis. The discussion focussed on the situational factors that affected the design of the survey methodological triangulation and data analysis approach that resulted. Population and sample, design of the interview, the product of instrument construction, the validation, and pilot testing procedures were discussed. Data collection, treatment and analysis both of the quantitatively established categories, and the matrix logical analysis of qualitative through analysis questions were described, as was the analysis of the

free response items. Also in the section the data categorization schemes and steps in inductive data analysis were described.

CHAPTER 4

ANALYSIS OF DATA

This section presents an exceptional case of this analysis - student characteristics. In general, the results of the analysis are organized into nine sections corresponding to the construct headings and items in the interview schedule. The exceptional case is "student characteristics" (section 9 in the interview schedule) which is presented first in this section. The description of the demographic variables is also presented in reverse order to, and without, the item and section numbers used in the schedule. Data in respect of those items were collected in the last section of the interview instrument. The purpose for collecting information in this manner was to delay sensitive questions (Babbie, 1973) until the end of the interview as a safeguard to guarantee valid and useful information from respondents.

Student Profile

Thirty six Nigerian students were enrolled in the NTTTP in both groups. Of the thirty-six, thirty-one (86.11%) were available and volunteered to be interviewed for this study. One student was outside of Canada and could not be contacted. Four other students could not take part in the study for personal reasons. This section of the chapter presents respondents' demographic information (in reverse order as collected with the interview schedule and without corresponding section and item numbers). These variables were contained in Section 9.

Sex of Respondent Student Teachers

Table 1 summarizes information on the sex variable of the respondents. The students were requested to indicate their sex as to male or female. Over 95% of the interviewees indicated male. As shown in the table, all the student teachers in UMAN were male. There was only one female respondent at UNB.

TABLE 1

SEX CHARACTERISTICS OF INTERVIEWEES

	UMAN (R = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Sex	f/%	f/%	f/%
Male	18/100	12/92.31	30/96.77
Female		1/7.69	1/3.23

Age Range of Student Respondents

More than three-quarters of the students participating in the program ranged in age from 25-29 years. In UMAN, two students were in each of the age ranges 20-24 and 30-34. UNB had three students whose ages were in the range of 20-24 with none in the 30-34 age range. This data is shown in Table 2.

TABLE 2

AGE RANGE OF INTERVIEWEES

	UMAN (n = 18)	UNB (N = 13)	UMAN/UNB (N = 31)
Age range (in years)	f/%	f/%	f/%
20-24	2/11.11	3/23.08	5/16.13
25-29	14/77.78	10/76.92	24/77.42
30-34	2/11.1	-	2/6.45

Respondent's State of Origin in Nigeria

Table 3 provides information on interviewees' state of origin in Nigeria. The table contains the distribution. It can be seen that respondents represented over two-thirds of the Nigerian states. Apart from Plateau State with six students (19%) and Bendel State with four students (13%) every other state contributed less than 10% of students to the program.

TABLE 3*

INTERVIEWEES STATES** OF ORIGIN IN NIGERIA

Nigerian States*		UMAN (n = 18) f/%	UNB (n = 13) f/%	UMAN/UNB (N = 31) f/%
Anambra	(AN)	1	2	3
Bauchi	(BA)	-	-	-
Bendel	(BD)	4	-	4
Benue	(BN)	1	1	2
Bornu	(BU)	1	-	1
Cross River	(CR)	2	1	3
Gongola	(GG)	-	1	1
Imo	(IM)	2	-	2
Kaduna	(KD)	1	-	1
Kano	(KN)	-	-	-
Kwara	(KW)	1	1	2
Lagos	(LG)	-	-	-
Niger	(NG)	-	-	-
Ogun	(OG)	1	-	1
Ondo	(ON)	-	-	-
Oyo	(OY)	1	1	2
Plateau	(PL)	1	5	6
Rivers	(RV)	2	-	2
Sokoto	(SO)	-	-	-
Federal	(FD)	-	1	1

*The states are listed in the table alphabetically and not according to population, size or geographic location.

**Abbreviation for state names may not be standard as used by state authorities.

The students were almost equally distributed between the geographical north (six states) with 14 students, and south (seven states) with 16 students. The Federal territory had one student.

Respondents' Fields of Study

Interviewees were requested to specify the major and minor/second teachable subjects (if any) in their B.Ed program.

Major Field

Twelve students at UMAN indicated they were registered in "Vocational Industrial" B.Ed program. Three students specified "Vocational Technical" and two said they were registered in "Vocational Technical/Industrial" education program. At UNB, all but one specified "Vocational" education for the major area of studies. The other one student indicated "Vocational Technical". Four of the twelve who specified "Vocational" included the specific subject majors to be electrical, electronics and forestry. One student at UMAN specified biochemistry.

Minor/Second Teachable Area

All the eighteen students in UMAN specified minor/second teachable area. Seven students did mathematics, five took geography and two had computer science. Three students indicated chemistry while one said biochemistry. One student at UNB said he had a minor subject area of mathematics. One other specified related science, physics and chemistry. The rest said they did not have any specified minor area apart from the related science, arts and technical electives specified as part of their B.Ed graduation requirements.

Year of Arrival in Canada

Many of the respondents arrived in Canada in 1979. In both groups only four students came in 1978. Data in Table 4 confirms this similarity in the two groups. In UMAN and UNB groups, less than 20% and 10% respectively arrived in Canada in 1978.

TABLE 4

INTERVIEWEES' YEAR OF ARRIVAL IN CANADA

	UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Year of arrival	f/%	f/%	f/%
1978	3/16.67	1/7.69	4/12.90
1979	15/83.33	12/92.31	27/87.10

Academic Qualification Upon Arrival in Canada

Nearly three-quarters (74%) of the respondents arrived in Canada after graduation from secondary (high) schools with the West African School Certificate (WASC). Indicated qualifications are summarized in Table 5. Eight of thirty one students arrived with technical or some form of certification in addition to or above the WASC qualifications.

TABLE 5

INTERVIEWEES' ACADEMIC QUALIFICATIONS UPON ARRIVAL IN CANADA

	UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Academic qualification	f/%	f/%	f/%
WASC	14/77.84	9/69.23	23/74.19
Others*	4/22.22	4/30.77	8/25.81

*Others include technical education (City and Guilds of London) certification; additional level of schooling above WASC such as Advanced General Certificate in Education; certification from school of agriculture, forestry, and teacher training colleges beyond teachers Grade II which is equivalent to WASC.

Canadian Province from Which Interviewees Graduated

Table 6 shows that respondents came from various community colleges in five of the ten provinces of Canada to register in the NTTTP. Ontario had the greatest number of students (13) with eleven which constituted more than 80% of UNB's sample.1 British Columbia and Manitoba had more students - six and seven respectively - at UMAN. Two other provinces were represented in UNB and five at UMAN.

TABLE 6

PROVINCE OF INTERVIEWEES' COMMUNITY COLLEGE GRADUATION

		UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Province*		f/%	f/%	f/%
Alberta	(AL)**	2/11.11	-	2
British Columbia	(BC)	6/33.33	1/5.56	7
Manitoba	(MB)	7/38.89	-	7
New Brunswick	(NB)	-	-	-
Newfoundland	(NF)	-	-	-
Nova Scotia	(NS)	1	1	2
Ontario	(ON)	2/11.11	11/84.62	13/41.94
Prince Edward Island	(PEI)	-	-	-
Quebec	(QUE)	-	-	-
Saskatchewan	(SA)	-	-	-

*Provinces are listed alphabetically and not according to size, geographic location or population.

**Abbreviations for names of provinces may not be standard as used by state authorities.

Most students in the west were at UMAN while most in the east went to UNB.

Community College Qualification Attained Before NTTTP Registration

All the interviewees indicated they had college technology diploma for NTTTP enrolment. A majority (71%) graduated in 1983. This information is summarized in Table 7.

TABLE 7

RESPONDENTS' DISTRIBUTION BY YEAR OF GRADUATION FROM COMMUNITY COLLEGE

	UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Graduation year	f/%	f/%	f/%
1981	2/11.11	-	2/6.45
1982	4/22.22	3/23.08	7/22.58
1983	12/66.67	10/76.92	22/70.97

x^2 (2, N = 31) = 1.559 P < .46

In UMAN 67% graduated in 1983. Over three-quarters in UNB also graduated in that year. Statistically the difference was not significant as shown by a x^2 value of 1.559 at $P \leq .4587$ significance level. This result was obtained by a 2 x 3 chi square test (Table 7).

Respondents' Participation in College Industrial Experience

As shown in Table 8 five students in UMAN (28%) and six in UNB (46%) took part in industrial work experience during their community college education. More than two-thirds of the students at UMAN and over one-half at UNB did not have college industrial experience. A 2 x 2 x^2 test, df = 1, produced a value of 1.113 at a probability level of $P \leq .2913$ which indicated no significant difference between the two groups.

TABLE 8

PARTICIPATION IN COLLEGE INDUSTRIAL EXPERIENCES

	UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Had college industrial experience	f/%	f/%	f/%
Yes	5/27.78	6/46.15	11/35.48
No	13/72.22	7/53.85	20/64.52

x^2 (1, N = 31) = 1.11 P < .29

Respondents' Occupation Before Coming to Canada, and Duration

Most students 87% had worked in Nigeria before coming to Canada for the community college education. As Table 9 indicates eight respondents in UMAN and two in UNB worked in teaching and related occupations. Nine and eight students respectively in the two groups worked in government and industry related jobs.

TABLE 9

DISTRIBUTION BY OCCUPATION IN NIGERIA BEFORE FIRST ARRIVAL IN CANADA

	UMAN (n = 18)	UNB (N = 13)	UMAN/UNB (N = 31)
Occupations	f/%	f/%	f/%
Teaching and Related	8/44.44	2/15.38	10/32.26
Government or Industry Related	9/50.00	8/61.54	17/54.84
Schooling and Others	1/5.56	3/23.08	4/12.90

x^2 (2, N = 31) = 3.96 P < .14

A x^2 value of 3.955 (df = 2), obtained at a probability level of .1384 showed no significant difference.

Occupation after Community College Graduation, and Duration

Only a few of the students had opportunities to work after community college and before registration in the NTTTP. Table 10 shows that three respondents each (17%) at UMAN and (23.08%) at UNB worked after community college. More than two-thirds of the respondents in both groups did not work after college graduation. Only two students each travelled, to Nigeria or elsewhere, not necessarily for work.

TABLE 10

DISTRIBUTION BY OCCUPATION AFTER CANADIAN COMMUNITY COLLEGE GRADUATION

	UMAN (n = 18)	UNB (N = 13)	UMAN/UNB (N = 31)
Occupation	f/%	f/%	f/%
Employment	3/16.67	3/23.08	6/19.35
No Employment	13/72.22	8/61.54	21/67.74
Travelled (Others)	2/11.11	2/15.38	4/12.90

Respondents' Expected Occupations After B.Ed Graduation

Interestingly equal percentages of students within the two groups expected to work in teaching or related occupations as in government or industry related occupations. Table 11 shows this similarity between the group. Two respondents at UNB did not know the job market in Nigeria to provide any response. One student did not have any preference. He would happily work in any of teaching, government or industry related occupations.

TABLE 11

DISTRIBUTION BY EXPECTED OCCUPATIONS AFTER B.ED GRADUATION

	UMAN (n = 18)	UNB (n = 13)	UMAN/UNB (N = 31)
Occupation*	f/%	f/%	f/%
Classroom Teaching and Related	8/44.44	6/46.15	14/44.90
Government and Industry Related	8/44.44	6/46.15	14/44.90
No Preference for Either	-	1/7.69	1/3.23
No Occupation Idea or Not Sure	2/11.11	-	2/6.46

*In these categories training in industry was classed as industry-related. Vocational counseling, educational consulting and work placement officers were grouped under teaching-related occupations.

Summary

The foregoing section on students' characteristics presented the analysis of NTTTP students' demographical quantitative and qualitative variables which have a bearing on their perceptions of the NTTTP (Muller, Schuessler & Costner, 1970, pp. 51-57). These are experiential, developmental, and psychosocial factors. Demographics studied included sex, age, state of origin in Nigeria, major and minor field of study in the B.Ed program and year of arrival in Canada. Others were academic qualification upon arrival in Canada, Canadian community college from which student graduated, qualification attained and year of graduation from community college. Occupation and work experience information related to college industrial experience,

occupation before coming to Canada and duration, occupation after graduation from community college and duration, and occupation expected after B.Ed graduation were also studied.

There was great similarity with respect to the demographic variables between the two groups of the NTTTP students at UMAN and UNB. The similarity suggested that the two sample groups were drawn from a homogenous population of Nigerian students (CBIE, 1983). All but one of the students interviewed were male with over three-quarters in each group belonging in the 25-29 age range. This age range falls within life stage individuals usually explore their own interests and career opportunities (Jope, 1980; Super & Bohns, 1970). Miller and Form (1964) call it the trial-work period (Hall, 1976). Students represented thirteen of the nineteen states excluding one Federal student. Twelve of nineteen Nigerian states were represented at UMAN with 58.06% of the total population of NTTTP students interviewed, and eight in UNB which contributed 41.94% almost one-third less than UMAN.

All students were registered in vocational education B.Ed degree programs in the two institutions (described variously by students), with UMAN and not UNB having a required second teachable (minor) area of specialization. A total of twenty-seven of the thirty-one students (87%), fifteen (83%) in UMAN and, twelve (92%) in UNB arrived in Canada in 1979. In each group all but four students came with West African School Certificate (WASC) academic qualification.

Except for the concentration of students (eleven of thirteen respondents) at UNB from various Ontario community colleges, students were recruited from many community colleges in five of the ten Canadian

provinces. No concentration from a particular college was experienced. Three provinces were represented at UNB and five at UMAN. All students had community college technology diplomas at NTTTP registration. Over seventy percent of them, 67% at UMAN and 77% at UNB, graduated in 1983.

In general, only a few students had opportunity for work experiences during diploma education and after graduation from community college graduation; six in each group during technology training, and three each after graduation with diplomas. Almost all the students worked before coming to Canada, except for three in UNB and one in UMAN. Fifty per cent in UMAN and 62% from UNB worked in government or industry-related jobs. Only two students (15%) in UNB worked in teaching as against eight (44%) in UMAN. [Though the percentage appears to give UMAN group greater occupational experience in teaching the difference was not statistically significant with a two by three chi square value of 3.955 and a probability of $P \leq 0.1384$.]

On graduation from NTTTP equal number of students from both groups expected to work in vocational teaching and related occupations as in government and industry-related jobs.

With these similarities, NTTTP students in both groups appear to have common background experiences and demographic characteristics which govern their individual groups' perceptions of the NTTTP B.Ed program in the respective settings. When these variables were tested with a two by three or two by two chi square statistical test, none showed significant difference. Consequently, the effect of respondents' individual perceptual models on their perceptions of NTTTP were assumed to be negligible for the purposes of this investigation. Their

responses were therefore shaped mainly by the variation and type of external program experienced.

B.Ed Programs Variables

The related variables of NTTTP components verified are described in this section. The purpose of this section is to present the general pattern of students' responses. It categorizes and classifies interviewees' responses to schedule items within respective sections. Discussion is presented descriptively, and focuses on the treatment of data for analysis. The technique of categorizing and descriptively analysing the data per item by sections.

Data Treatment, Analysis, and Reporting

Data triangulation approach used for this study demanded that two types of information be collected for this analysis. Both quantitative and qualitative data were generated. They were treated and categorized by different techniques and reported together according to the logic of triangulation-seeking complementarity (Meyers, 1981) and focus (Guba & Lincoln, 1981). Quantitative data were categorized by frequencies and percentages in crossbreak tables. Group data categories were compared and statistically tested for significant differences. Qualitative data were summed up by univariate analysis technique per item variable within their respective sections. The categorization and classification of qualitative data employed inductive analysis techniques using process-outcome matrix.

After initial data processing, the five-point scales were collapsed to three points due to the small number of respondents in each of the

two groups. From the original scales, the two "positive" (+ve) categories of strongly agree (SA) and agree (A) became one strongly agree/agree (SA/A) dimension. The undecided category remained neutral by itself as on the original scale. Disagree (D) and strongly disagree (SD) were grouped to disagree/strongly disagree (D/SD) for a negative (-ve) category. Combining adjacent categories in this manner reduced the number of cells and served to increase category frequencies and percentages for chi-square (x^2) test (Siegel, 1956, p. 109). For the x^2 test, Ferguson (1966) recommended that "an expectation of not less than two in each cell would permit the estimation of roughly approximate probabilities" (p. 207).

With respect to the conditions that obtained with this study, Siegel (1956) suggested that:

> If the requirements (of expected cell frequencies) are not met by the data in the form in which they were collected, the researcher must combine adjacent categories in order to increase the expected frequencies in the various cells (p. 110).

The data categorization and classification reported here were based on the three-point collapsed scales. All other variables on the three-point or alternative scales were not collapsed or regrouped. Both are reported as were collected with the original scales. Results of this square (x^2) tables with corresponding univariate data where applicable are contained in Appendix E. Chi-square statistical terms were conducted only for those items where differences appeared to be apparent.

Aspects of Administration

This section presents the descriptive analysis of data regarding the adequacy of the administrative provisions of NTTTP in Canada - University of Manitoba (UMAN) and University of New Brunswick (UNB). Students in the two groups were registered in existing degree programs in the respective faculties. They received advance standing (credit hours) for previous work done prior to registering in the NTTTP. Based on the course requirements of their particular B.Ed degree programs and advanced credits received, students programs were drawn up with the guidance of appropriate program advisors and officers.

The quantitative responses categorized are summarized in Tables 1 through 5. Tables of x^2 test results, where applicable with univariate qualitative data, are contained in Appendix E.01. For reasons of clarity and coherence both quantitative and qualitative forms of analysis data are reported together in this section.

Item 1.1: Availability of NTTTP Goals and Objectives

Students opinions appeared to be split in respect of the statement: "NTTTP goals and objectives for program implementation were made available to all participants". Item 1.1 in Table 12 shows that nine (50%) of the students at UMAN and nine (69%) at UNB disagreed with the statement. Eight students (44.44%) at UMAN and only two (15%) at UNB agreed that the goals and objectives were made available. Further analysis of the response produced a value of 3.210 from a 2 x 3 x^2 test (df = 2) at .2008 probability level. This test result, shown in Table E-1 of Appendix E, was statistically insignificant. With this result

TABLE 12

FREQUENCY/PERCENTAGE OF RESPONSES TO ADEQUACY OF ASPECTS OF ADMINISTRATION FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	PROGRAM ADMINISTRATION ITEMS	SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
		f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
1.1	NTTIP goals and objectives for program implementation were made available to all participants.	8/44.44	1/5.56	9/50.00	2/15.38	2/15.38	9/69.23	10/32.36	3/9.68	18/58.06
1.2	You received adequate advance credits for previous work done.	10/55.56	2/11.11	6/33.33	5/38.46	2/15.38	6/46.15	15/48.39	4/12.90	12/38.71
1.3	The B.Ed. program drawn up for you satisfied your perceptions of NTTIP for vocational teacher education.	9/50.00	2/11.11	7/38.89	1/7.69	2/15.38	10/76.92	10/32.26	4/12.90	17/54.84
1.4	When program experiences were provided in more than one setting, you had no serious problem with your accommodation and transportation.	14/77.78	1/5.56	3/16.67	3/23.08	3/23.08	7/53.85	17/54.84	4/12.90	10/32.26
1.5	Program administrators made sufficient effort to listen to and alleviate student's program concerns.	7/38.89	2/11.11	9/50.00	4/38.46	5/30.77	4/30.77	11/35.48	7/22.58	13/41.94
1.6	Adequate guidance was available to guide you in program structuring/ scheduling.	12/66.67	1/5.56	5/27.78	10/76.92	2/15.00	1/7.69	22/70.97	3/9.68	6/19.35

the response was judged to be a "marginal disagreement" in both groups.

Items 1.2, 1.8: Adequacy and Specification of Advanced Credit Received

Ten (56%) of the students at UMAN and five (38%) at UNB agreed that they "received adequate advance credits for previous work done". One-third (33%) and nearly one-half (46%) of the students at UMAN and UNB respectively disagreed. Further analysis of this item with a x^2 test (df=2) produced insignificant results (Table E-2).

Twelve students at UMAN (67%) specified they received thirty (30) credit hours of advance standing for previous work done. Other specified one year. Three students specified "non" (nil) arguing the extra work done at the college during the summer made up for the advance standing they received. At UNB all the students specified they received twenty-one (21) credit hours.

Item 1.3: Satisfaction with B.Ed Program Drawn Up

With nine students (50.00%) of the students at UMAN and only one (7.69%) at UNB agreeing that "the B.Ed program drawn up for them satisfied their perceptions of NTTTP for vocational teacher education, the response appeared to be split between the two groups. Also, seven students (39%) in UMAN and ten (77%) in UNB disagreed. An analysis failed to confirm statistical difference at .0431 significance level with a x^2 value of 6.287 (df = 2). Table 12 Item 1.3 and Table E-3 present the result of these analyses.

Item 1.4: Problems with Accommodation and Transportation

The NTTTP at UMAN was jointly implemented by University of Manitoba and Red River Community College (RRCC) program. Students had classes scheduled at UMAN during the school year and at RRCC during the summer. Also student teaching and industrial work experience were required components of their program. Both placement experiences took place outside both UMAN and RRCC campuses. Except for field trips, almost all scheduled classes at UNB took place on the university campus. The two groups at UMAN and UNB responded to the item statement: "when program experiences were offered in more than one setting, you had no serious problem with your accommodation and transportation". Fourteen students (77.78%) at UMAN agreed. Three (17%) disagreed. At UNB, on the contrary, only three (23%) agreed while seven (54%) disagreed. Table 12 Item 1.4 shows the detail frequencies and percentages which indicated apparent differences. A statistical analysis produced a x^2 test value of 9.147 (df = 2) at a significance level of .0103 for a marginal positive view among the two groups' response. Refer to Table E-4 for results of the x^2 test.

Item 1.5: Students' Concerns Listened to and Alleviated

Students were requested to react to the statement that "Program administrators made sufficient efforts to listen to and alleviate students' program concerns.". At UMAN, seven students (38.89%) agreed. Five (38%) also agreed at UNB. Nine (50%) and four (31%) at UMAN and UNB, respectively, disagreed. Refer to Table 12 Item 1.5 for details. With 42% disagreeing and 35% agreeing, the response in both groups bordered on marginal disagreement. A good number of students, 22% in

both groups, remained undecided.

Item 1.6: Adequacy of Guidance

"Adequate guidance was available to guide you (students) in program structuring/scheduling". Over two-thirds of the students in both groups agreed. The detail frequencies and percentages are shown in Item 1.6 of Table 12.

Item 1.7: Students' Input Being Sought and Valued

In decision making regarding program implementation, students' inputs being adequately sought, and students' inputs being valued received disagreement in both groups. Only two students at UMAN (11.11%) and one at UNB (7.69%) agreed in each case. About 72% and 77%, respectively, disagreed. Table 13 shows detailed category frequencies and percentages regarding Item 1.7 in respect of students' inputs.

Item 1.8.1: Adequacy of Program-Related Information

Table 14, Item 1.8.1 shows apparent differences among the groups in respect of adequacy of information to guide NTTTP students' programs. 61% of the students at UMAN felt they had adequate information while 85% at UNB felt they did not. A x^2 test value of 6.482, shown in Table E-5, did not confirm statistical significance at $P \leq .0109$ probability level (df = 1). A marginal negative opinion resulted.

Students who felt information was inadequate said they needed information about the nature and content of the program. The kind of information needed was similar in both groups. Core courses and electives: limitations, choices, and relevance of courses in their program were the most frequently mentioned areas. Program goals and

TABLE 13

FREQUENCY/PERCENTAGE OF RESPONSES TO STUDENTS' INPUTS SOUGHT AND VALUED FOR UMAN, UNB, AND COMBINED GROUPS

PROGRAM ADMINISTRATION ITEMS	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
1.7 In decision making regarding program implementation:									
- Students' inputs were adequately sought.	2/11.11	3/16.67	13/72.22	1/7.69	2/15.38	10/76.92	3/9.68	5/16.13	23/74.19
- Students' inputs were valued.	2/11.11	3/16.67	13/72.22	1/7.69	2/15.38	10/76.92	3/9.68	5/16.13	23/74.19

TABLE 14

FREQUENCY/PERCENTAGE OF RESPONSES TO ADEQUACY OF PROGRAM RELATED INFORMATION FOR UMAN, UNB, AND COMBINED GROUPS

PROGRAM ADMINISTRATION ITEMS	UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
	YES	NO	YES	NO	YES	NO
	f/%	f/%	f/%	f/%	f/%	f/%
1.8.1 Did you have adequate information to guide your program?	11/61.11	17/38.89	2/15.38	11/84.62	13/41.94	18/58.06

objectives were another area often specified.

Lack of information on core courses and electives delayed some students' graduation according to few UNB respondents. This information, interviewees perceived, could have been provided for both groups by the program coordinators and CBIE. In a few cases, FME was specified. The "academic advisor" was mentioned in UNB. Also UNB would like department guidelines on program description.

Items 1.9.1 - 1.9.3: Effectiveness of University Program Officials and Colleagues

Table 15 summarizes students' responses in respect of the effectiveness of the contributions, from various program participants, in students attaining program's goals and objectives. There was common agreement in both groups that the contributions by their colleagues, instructors in general and university officials were effective to very effective. More than 90% of the respondents felt as such for their colleagues and instructors. About 80% of the respondents realized this effectiveness on the part of university officials.

Item 1.9.4: Effectiveness of CBIE Contributions

CBIE's contributions received a divided opinion in each of the two groups. Item 1.9.4 of Table 15 shows that almost equal number in each group felt CBIE was effective or very effective as it was ineffective. In both groups 51.61% agreed CBIE was very effective/effective while 48% disagreed.

TABLE 15

FREQUENCY/PERCENTAGE OF RESPONSES TO EFFECTIVENESS
OF PROGRAM AGENCIES FOR UMAN, UNB, AND COMBINED GROUPS

PROGRAM ADMINISTRATION	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	VE	E	INE	VE	E	INE	VE	E	INE
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
1.9 Evaluate the contributions (effectiveness/ ineffectiveness) of each of these agencies in attaining the program's goals and objectives.									
1.9.1 Your colleagues	8/44.44	9/50.00	1/5.56	5/38.46	6/46.15	2/15.38	13/41.94	15/48.39	3/9.68
1.9.2 Instructors in general	2/11.11	15/83.33	1/5.56	2/15.38	10/76.92	1/7.69	4/12.90	25/80.65	2/6.45
1.9.3 University officials	1/5.56	15/83.33	2/11.11	2/15.38	9/69.23	2/15.38	3/9.68	24/77.42	4/12.90
1.9.4 CBIE	1/5.56	8/44.44	9/50.00	1/7.69	6/46.15	6/46.15	2/6.45	14/45.16	15/48.39
1.9.5* Nigerian High Commission	-	3/16.67	15/83.33	-	-	11/84.62	-	3/9.68	26/83.87
1.9.6 Nigerian Federal Ministry of Education	-	4/22.22	14/77.78	-	1/7.69	10/76.92	-	5/16.13	24/77.42

* Percentage total less than 100% because of non-respondents

Item 1.9.5 - 1.9.6: Effectiveness of FME and NHC Contributions

The contributions of Nigeria High Commission (NHC) and the Nigeria Federal Ministry of Education (FME) received a common "ineffective" from over three-quarters of the respondents in both groups. In Items 1.9.5 and 1.9.6 the frequency and percentages comparisons show that a total respondent of 83.87% for NHC and 77.42% for FME felt the ineffectiveness of these agencies.

Items 1.10.1 - 1.10.3: Relationship with University Officials and Colleagues

Responses regarding the relationships respondents had with program participants are summarized in Table 16. Respondents had good to fair relationships with their colleagues and instructors in general. This feeling is shared commonly in both groups as shown in Items 1.10.1 and 1.10.2 of Table 16. There is a common agreement, too, that university coordinators had good to fair relationships with respondents. 22% and 8% at UMAN and UNB respectively felt their relationship with the university coordinators was poor.

Item 1.10.3: Relationship with CBIE Officials

There were apparent differences between UMAN and UNB respondents with respect to their relationships with CBIE. While 56% of the respondents at UMAN felt they had poor relationships with CBIE, 85% at UNB indicated they had good to fair relationships with CBIE. Further analysis of the response of the two groups produced a x^2 value of 5.743 (df = 2) at a significance level of .0566. No statistical difference was obtained. This result confirmed a marginal positive opinion between the two groups. Refer to Appendix E, Table E-6 for x^2 test results.

TABLE 16

FREQUENCY/PERCENTAGE OF RESPONSES TO SATISFACTION RE RELATIONSHIPS WITH PROGRAM PARTICIPANTS FOR UMAN, UNB, AND COMBINED GROUPS

PROGRAM ADMINISTRATION ITEMS	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
1.10 Assess program-student relationships with the following program participants (good/poor).									
1.10.1 Your colleagues	14/77.78	4/22.22	-	10/76.92	2/15.38	1/7.69	24/77.42	6/19.35	1/3.23
1.10.2 Instructors in general	9/50.00	8/44.44	1/5.56	9/69.23	4/30.77	-	18/58.06	12/38.71	1/3.23
1.10.3 University (college) coordinators	6/33.33	8/44.44	4/22.22	8/61.54	4/30.77	1/7.69	14/45.16	12/38.71	5/16.13
1.10.4 CBIE officials	1/5.56	7/38.89	10/55.56	3/23.08	8/61.54	2/15.38	4/12.90	15/48.39	12/38.71
*1.10.5 Nigerian High Commission	1/5.56	4/22.22	13/72.22	-	3/23.08	8/61.54	1/3.23	7/22.58	21/67.74
*1.10.6 FME officials	1/5.56	3/16.67	14/77.78	1/7.69	1/7.69	8/61.54	2/6.45	4/12.90	22/70.97

* Total percentage may be less than 100% because of non-respondents.

Items 1.10.5 - 1.10.6: Relationship with FME and NHC

Over two-thirds of the respondents at UMAN (72.22%) and 61.54% at UNB felt their relationships with both NHC and FME were poor. These responses indicate common agreement between the groups to the poor relationships these agencies maintained with the program student respondents.

Item 1.11: Comments and Suggestions

The comments revealed a lack of program guidelines planned by FME and CBIE with the participating universities. Generally, interviewees expressed dissatisfaction with the lack of involvement of both the Nigeria High Commission and the Federal Ministry of Education, in program implementation and evaluation. Also, the need for consideration of students' opinions in making program decisions was indicated. Furthermore, a need for adequate dissemination of program-related information was expressed, especially by UNB respondents.

Peculiar to UMAN was a desire for greater curricular flexibility for students to select elective courses in their technology areas. In UNB, interviewees expressed appreciation for the flexibility in their programs for technical electives in technology areas. However, some of the respondents also felt "extreme flexibility" tended to lead to a lowering of the quality of the B.Ed degree programs.

Summary

The analysis of data in this section on the adequacy of selected aspects of NTTTP's administrative provisions revealed several marginally split opinions, views and satisfaction between UNB and UMAN groups.

There were also common agreements and disagreements with respect to some provisions as discussed in this summary.

Both groups commonly disagreed marginally (58%) to the availability of NTTTP goals and objectives to guide program implementation. There was common marginal disagreement (42%) also amongst the two groups that program administrators sought and valued their input. Students in both groups had a common feeling that Nigeria High Commission (84%, 71%) and Nigerian Federal Ministry of Education (77%, 68%) neither contributed effectively to students in attaining program's goals and objectives, nor had good or fair relationships with program students respectively.

In both groups guidance was viewed to be adequate (71%). The groups had common agreement that students' colleagues (90%), their instructors (94%) and university officials (87%) were effective in their contribution to the students in attaining program's goals and objectives. They commonly agreed to having good to fair relationships with their colleagues (97%), instructors in general (97%) and other university officials (84%).

There was marginal agreement and disagreement within the two groups regarding CBIE's contributions to students in attaining program's goals and objectives. Opinions were split in respect of student relationships with CBIE. A majority of students in UNB (85%) had good relationships with CBIE but a greater percentage of students in UMAN (56%) did not share this view.

Students' views were split regarding adequacy of credit hours received. That provision appeared to have been marginally adequate in UMAN (56%) but not in UNB (38%). UMAN had no serious problems with

accommodations and transportation when program experiences were offered in more than one setting (78%), but UNB group did (54%). Adequacy of information also received split views between the two groups. UMAN students felt they had adequate information (61%) while the 58% in the UNB group did not share this perception.

Knowledge and Skills

The NTTTP students who were registered in B.Ed degree programs in their respective universities generally took courses with other Canadian university students to satisfy their graduation requirements. This section of the interview analysis assessed how respondents perceived the relevance and usefulness of the academic knowledge and skills provided in their B.Ed programs.

Data Categorization and Description

Analysis of interviewees' responses from these items are presented in Tables 17-19, which contain the category frequencies and percentages of the responses. Chi-square test results are presented in Appendix E-02.

Item 2.1.1: Knowledge of Canadian Education Concerns

Common agreement was indicated by thirty (97%) of the thirty-one respondents in both groups regarding Item 2.1.1. This response showed that the B.Ed degree program provided respondents, in both groups, with knowledge to appreciate the concerns of education in Canada. The details are shown in Table 17.

TABLE 17

FREQUENCY/PERCENTAGE OF RESPONSES REGARDING SATISFACTION WITH ACADEMIC KNOWLEDGE AND SKILLS FOR UMAN, UNB, AND COMBINED GROUPS

	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
2.1 The B.Ed. program provided academic knowledge that:									
2.1.1 - enables you to be more knowledgeable of the concerns of education in Canada	17/94.44	1/5.56	-	13/100.00	-	-	30/96.77	1/3.23	-
2.1.2 - enables you to be more knowledgeable of the concerns of education in Nigeria	4/22.22	2/11.11	12/66.67	9/69.23	-	4/30.77	13/41.94	2/6.45	16/51.61
2.1.3 - prepares you adequately for vocational teaching in Nigeria	12/66.67	1/5.56	5/27.78	4/30.77	2/15.38	7/53.85	16/51.61	3/9.68	12/38.71
2.2 During your training you would have liked to have courses that dealt specifically with Nigerian education.	14/77.78	3/16.67	1/5.56	8/61.54	3/23.08	2/15.38	22/70.97	6/19.35	3/9.68
2.3 Instructors permitted assigned projects to reflect Nigerian content if students so desired.	7/38.89	5/27.78	6/33.33	8/61.54	1/7.69	4/30.77	15/48.39	6/19.35	10/32.26

Item 2.1.2: Knowledge of Nigerian Education Concerns

The B.Ed appeared to have enabled more students at UNB (69%) than UMAN (22%) to be more knowledgable of the concerns of education in Nigeria. Two-thirds (67%) of the respondents at UMAN and 31% at UNB disagreed that they were more knowledgable of Nigerian education concerns through their B.Ed degree program. A x^2 test (df = 2) showed no significant difference with a value of 7.307 at a probability level of .0259. The statistical test result did not confirm a split in opinions between the UMAN and UNB groups. Detailed frequency and percentage distribution are shown in Item 2.1.2 of Table 17. The x^2 test is contained in Table E-7 of Appendix E. The findings confirmed Rosen's (1984) assertion that undergraduate programs were often heavily weighted down by host culture-based content that could be neutralized with content on students' country as Schoeneberger and Odynak (1974) and Cunningham and Burge (1984) recently suggested.

Item 2.1.3: Adequacy of B.Ed Degree Program Preparation

Two-thirds (67%) of the respondents at UMAN, and less than one-third (31%) at UNB, agreed that the B.Ed program prepared them adequately for vocational teaching in Nigeria. Five (28%) and seven (54%) of the respondents at UMAN and UNB, respectively, disagreed with the statement as shown in Item 2.1.3 of Table 17. This apparent difference in respondents' opinions were further analysed with a x^2 test. A value of 3.965 (df = 2) at a probability level of .1378 showed insignificant differences statistically (Table E-8). The response was accepted to indicate a marginal disagreement between the two groups.

Item 2.2: Respondents' Likeness for Nigerian-Related Courses

Table 17 Item 2.2 shows that fourteen (78%) of respondents at UMAN and 62% at UNB agreed they would have liked to have courses that dealt specifically with Nigerian education during their training. One student in UMAN and two in UNB disagreed. This response indicated a common agreement to the item statement.

Item 2.3: Assigned Projects Reflecting Nigerian Content

In Item 2.3 of Table 17, comparison of percentage and frequency counts shows that 39% at UMAN and 62% at UNB, of the respondents, agreed that instructors permitted assigned projects to reflect Nigerian content if students so desired. With about equal percentages, in both groups, 33% and 31%, respectively disagreeing, the result appeared to be different. Further analysis with a x^2 test revealed no significant statistical differences. The x^2 value calculated was 2.389 (df = 2) at a probability level of .3029 while a value of 3.84 $P < .05$ was requried for significance. A marginal difference between the groups was inferred. Table E-9 of Appendix E shows the results of x^2 test on these items.

Items 2.4.1 - 2.4.2: Usefulness and Relevance of Academic (Minor/ Second Teachable) and Professional (Education) Courses

Academic (minor/second teachable) areas and professional (education) courses appeared to have been "very useful and relevant for teaching in Nigeria" according to indicated common agreement by twenty-eight of the thirty-one students (91%) in both groups. These results are shown in Items 2.4.1 and 2.4.2 of Table 18.

TABLE 18

FREQUENCY/PERCENTAGE OF RESPONSES REGARDING SATISFACTION WITH SELECTED COURSES FOR UMAN, UNB, AND COMBINED GROUPS

KNOWLEDGE AND SKILLS	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
2.4 During your training, courses in the following areas were very useful and relevant for teaching in Nigeria:									
2.4.1 - academic courses (minor/second teachable)	16/88.89	1/5.56	1/5.56	12/92.31	1/7.69	-	28/90.32	2/6.45	1/3.23
2.4.2 - professional (education courses)	15/83.33	1/5.56	2/11.11	13/100.00	-	-	28/90.32	1/3.23	2/6.45
2.4.3 - technical electives	6/33.33	3/16.67	9/50.00	12/92.31	1/7.69	-	18/58.06	4/12.90	9/29.03
2.4.4 - English language	6/33.33	2/11.11	10/55.56	12/92.31	-	1/7.69	18/58.06	2/6.45	11/35.48

TABLE 19

FREQUENCY/PERCENTAGE OF RESPONSES TO THE NECESSITY OF INDUSTRIAL WORK EXPERIENCE FOR UMAN, UNB, AND COMBINED GROUPS

	UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
	SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
3.1 Industrial work placement (internship for practical experience) was necessary for your B.Ed. program.	14/77.78	-	4/22.22	10/76.92	1/7.69	2/15.38	24/77.42	1/3.23	6/19.35

Items 2.4.3 - 2.4.4: Usefulness and Relevance of Technical Elective and English Language Courses

Comparison of percentages and frequency counts in Items 2.4.3 and 2.4.4 seemed to indicate differences in response between the two groups. Six of the respondents in UMAN (33%) and twelve of thirteen in UNB (92%) in each case agreed that technical electives and English language courses were relevant and useful. About one-half of the students in UMAN disagreed. Analysis with x^2 test revealed significant differences respecting responses in these two items between the groups. A x^2 result of 11.493 (df = 2) $P \leq .0032$ was obtained for technical elective (Table E-10), and 10.839 (df = 2) $P \leq .0044$ for English language courses (Table E-11). Both items were therefore confirmed to receive split opinions from respondents in the two groups.

Item 2.5: Names of Two Most-Useful Courses

In both groups, names of the two courses most useful for teaching in Nigeria came from education courses. Subject development and evaluation was most frequently mentioned in UMAN. It was followed by media and audio visual courses. In UNB media was cited most often followed by teaching methods. Laboratory management courses were cited relatively often in both groups.

Item 2.6: Names of Two Least-Useful Courses

The names of two courses respondents cited as least useful were also in the education and UMAN technical elective areas from education. In UMAN, Social Foundations of Education was mentioned by about two-thirds of the students. It was followed by Industrial Relations course. At UNB School Law, Administration and History (in Canada or the

province) were cited most often. English language course was cited by one-third of the respondents in Manitoba and only one respondent at UNB.

Item 2.7: Most/Least Transferable Aspects of B.Ed Program

In UMAN student teaching, and industrial placement were the two components most frequently mentioned. One student in UMAN cited mathematics. Science and other technology elective areas were cited by four respondents in UNB. Most of the education areas such as methods courses, subject development, instructional planning and evaluation were again most often mentioned. Those aspects least transferable most cited were again related to the Canadian content in education and academic courses.

Analysis of respondents' comments and suggestions on academic knowledge and skills revealed a desire for greater curricular flexibility so that some courses were not mandatory. Undesirable courses mentioned included those that are weighted down with Canadian content and UMAN English language courses.

Summary

The findings in this section show that the B.Ed program provided academic knowledge that enabled respondents (94% at UMAN and 100% in UNB) to be more knowledgeable of the concerns of Canadian education. It enabled only 22% in UMAN and over two-thirds in UNB (69%) to be more knowledgeable of the concerns of education in Nigeria. Many of those courses and their various aspects were least transferable to Nigerian situation. They were also perceived to be irrelevant to the needs of vocational teaching in Nigeria.

While four technical electives from education at UMAN were perceived to be irrelevant and their aspects least transferable to Nigerian situation, the engineering electives at UNB and UMAN's second teachable subjects were very useful and transferable. Professional education methods courses such as subject development and evaluation, audio visual studies or media, and academic courses were also perceived to be very useful, relevant, and most transferable for teaching in Nigerian situations.

As perceived by 67% of the respondents, the UMAN B.Ed degree program appeared to prepare program graduates adequately for vocational teaching in Nigeria, as against only 31% who perceived similarly about the UNB degree program. In both situations, 71% of the respondents would have liked to have courses dealing specifically with Nigerian education concerns.

Student teaching and work placement were two components that were perceived to be very useful, relevant for vocational teaching in, and transferable to Nigerian situations. Mandatory requirements of specified four technical education elective courses in UMAN were perceived negatively, while the flexibility for technology elective choices in UNB was desired.

Industrial Work Experience

The review of professional literature (NAFSA, 1979) and program documents (Federal Ministry of Information, 1977) seemed to suggest that industrial work experience was an important and desired component of NTTTP to produce skilled practice-oriented vocational teachers. Items

in this section of the interview analysed here were designed to solicit student views with regard to the necessity and worth of work experience which they might or might not have been placed in the industries, or had in-class industry-related experiences. Analysis of responses are presented in this section of the chapter. Chi square (x^2) tables, where applicable, with univariate data are available in Appendix E.03.

Item 3.1: Necessity for Industrial Work Placement

More than three-quarters of the respondents (78% in UMAN and 77% in UNB) perceived "industrial work placement (internship) for practical experience was necessary for (the) B.Ed program". Only four interviewees (22%) at UMAN and two (15%) at UNB disagreed. A comparison of responses indicated a common agreement as shown in Item 3.1 of Table 19.

Item 3.1.1: Interviewees' Reasons for Response Options

Those students who felt industrial work placement was necessary gave reasons such as familiarity with industry and the world of work as the primary need. More than one-third of the students cited these and the ability to relate theory to practice as well as keeping current in the technology area and as a result staying abreast of the world of work. Other reasons cited included the value of hands-on work and learning the skills of working in, and management of, industry as well as of relating to people. The reasons given by those who felt work placement was unnecessary included the lack of university in-class courses during B.Ed training to complement the practice and help them remain in touch with the technical area. Lack of financial benefits was

another reason they gave. Those respondents who were undecided felt Canadian industry and plants are different from those in Nigeria.

Item 3.1.2: Activities for Industrial Work Related Component

Respondents at UMAN described their industrial experiences to include working in industries related to their fields of technology. Observation; hands-on work in the laboratory, plants, work sites, and warehouses were cited many times. Those at UNB cited visits to industry and writing appropriate reports on the visits.

Item 3.2: Meeting Objectives of Work Experience

Thirteen (72%) of respondents in UMAN agreed they met the perceived objectives of the related work component of NTTTP by the activities of the industry-related experiences they had. Ten of thirteen respondents at UNB (77%) felt they did not meet the perceived objectives of the work placement or component of their B.Ed program. With this apparent difference in students' views a x^2 test was carried out in the item. A x^2 value of 7.300 (df = 1) at a probability level of $P \leq .0069$ was obtained. This result, shown in Table E-12 of Appendix E, failed to confirm a split opinion between the groups based on a probability level of $p \leq .05$ required for statistical significance.

Item 3.3: Change of Future Plans and Reasons

There was a common agreement among majority of respondents in both groups that their future plans did not change as a result of the industry work related experience they had. Sixteen students (89%) at UMAN and nine (69%) at UNB indicated disagreement to changed plans. See Table 20 Item 3.3 for frequency distribution and percentages.

TABLE 20

FREQUENCY/PERCENTAGE OF RESPONSES TO EFFECTIVENESS OF INDUSTRIAL WORK EXPERIENCE FOR UMAN, UNB, AND COMBINED GROUPS

	INDUSTRIAL WORK EXPERIENCE	UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
3.2	You met the objectives for the related work component of NTTIP by the activities of this experience.	13/72.22	5/27.78	3/23.08	10/76.92	16/51.61	15/48.39
*3.3	Your future plans have changed as a result of this industry-related work experience.	2/11.11	16/88.89	3/23.08	9/69.23	5/16.13	25/80.65

The reasons students at UMAN gave for lack of change of plans included short duration of placement, and lack of technology courses in the university to reinforce the industry-related work experiences. Other respondents indicated that they had already made up their mind about their occupational plans and as such felt they could gain employment without the placement. Others feared the experience may lure them away from classroom teaching. At UNB, the lack of actual placement and hands-on experience were cited most often. Some felt the field trips were not only unrelated to their areas of technology, but the trips were of short duration. Some respondents felt they were interested in working rather than just visiting industries to observe workers and sites. Those few whose plans had changed tended to be a revival of interest in industry and away from classroom teaching. These findings confirmed NAFSA's (1979) findings and suggestions about the necessity of practice work placement for foreign students from developing countries studying in the US.

Item 3.4: Preference for Different Experiences and Reasons

"A different experience would have been preferable in your situation" received an apparent split view between the two groups. Among UMAN respondents, (83.33%) would not prefer a different experience while 84.62% of respondents in UNB would. A x^2 value of 11.138 (df = 2) at a probability level of $P \leq .0038$ confirmed the split in respondents' opinions between the groups. Refer to Table E-13 in Appendix E for results.

Respondents in UMAN felt the actual work placement was useful and

no other opinion would be more suitable in the circumstance. The placements were in the area many respondents felt was interesting and related to their careers. Some felt technology teachers need to know the industry to relate teaching to required skills and opportunities. In UNB some students needed to work in actual work sites, shops and laboratories. Some indicated they would "volunteer to do work for the experience". "At least a week's placement in the industry would have been preferred to field trips," reflected their perceptions.

Items 3.5 - 3.5.1: Opportunity for Placement and Type of Industries

Seventeen respondents (94%) in UMAN indicated they were placed in industry "for work experience". Over ninety percent (92%) in UNB said they were not. From the comparison of frequencies and percentages between the groups, the split response about placement in industry was obvious. A chi-square test result is shown in Table E-14. The UMAN students who were placed in industries cited both private industries and plants as well as government departments.

The Practice of Work Placement Component of NTTTP: For Those Who Had Work Placements

The analysis in this part of the section is based on data collected from those eighteen respondents in UMAN who were placed in industry for work experience. Table 22 summarizes the results for this part.

Items 3.6 - 3.7: Effect of Industrial Work Placement

Majority of the students felt industrial placement experience enabled them to acquire skills for working in industry (67%), appreciate working in industry (89%), and gain valuable experience

TABLE 21

FREQUENCY/PERCENTAGE OF RESPONSES REGARDING ALTERNATIVES TO INDUSTRIAL WORK EXPERIENCE FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
		SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
		f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
3.4	A different experience other than what you did would have been preferable in your situation.	2/11.11	4/22.22	12/66.67	9/69.23	1/7.69	3/23.08	11/35.48	5/16.13	15/48.39

TABLE 22

FREQUENCY/PERCENTAGE OF RESPONSES TO OPPORTUNITIES FOR INDUSTRIAL PLACEMENT FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
	INDUSTRIAL WORK EXPERIENCE	YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
3.5	Were you placed in industry for work experience?	17/94.44	1/5.56	1/7.69	12/92.31	18/58.06	13/41.94

TABLE 23

FREQUENCY/PERCENTAGE OF RESPONSES TO EFFECTIVENESS OF INDUSTRIAL WORK EXPERIENCE FOR UMAN GROUP

		UMAN ONLY (N=18)		
		SA/A	U	D/SD
		f/%	f/%	f/%
3.6	The industrial practical experience enabled you to:			
3.6.1	- acquire skills for working in industry	12/66.67	1/5.56	5/27.78
3.6.2	- become more confident teaching in your technology area	8/44.44	-	10/55.56
3.6.3	- appreciate working in industry	16/88.89	-	2/11.11
3.6.4	- gain valuable experience not available in the classroom	13/72.22	1/5.56	4/22.22
3.7	The industrial experience was:			
3.7.1	- enjoyable	12/66.67	3/16.67	3/16.67
3.7.2	- useful	13/72.22	2/11.11	3/16.67
3.7.3	- relevant to your needs as a vocational teacher in Nigeria	9/50.00	3/16.67	6/33.33

not available in the classroom (72%). Only 44% agreed the experience enabled them to become more confident teaching in their technology areas while 56% disagreed. To many respondents, the industrial experience was enjoyable (67%) and useful (72%). Only one-half (50%) of the respondents felt the industrial experience was relevant to their needs as vocational teachers in classrooms in Nigeria. One-third (33%) of the interviewees disagreed.

Item 3.9: Comments on Provisions of Industrial Work Placement

In terms of timing, many respondents felt the placement was effective. The transition from school to full time work without an adequate rest was strenuous. Those who felt this way would have preferred the hours of work placement be spread over a longer period preferable throughout the school year. That spread would give them time to have the rest they needed during the summer. Few who felt the time was suitable argued that that was the only available time for the placement.

The duration was generally felt to be inadequate. There were few respondents who felt the duration should have been shorter since they were not paid for work done. However many others felt they would prefer longer period for greater experience. Supervision by college official and evaluation methods used were rated generally fairly satisfactory by about two-thirds of the respondents. Relevance of industry-related work experience to teaching, not necessarily in the classroom in Nigeria received a good rating from thirteen of the eighteen UMAN students.

Other areas specified were the need for placement experiences in more than one section of the industry, payment for productive work and a

need for a checklist of planned experiential skills to be mastered during the placement to avoid exploitation.

Policies, Regulations and Their Effects on Work Placement

These two items were designed "for all respondents" to react on the availability and effects of policies and regulations on implementation of work placement. The last item sought from respondents the stronger and weaker features of the industry-related experience.

Item 3.10: Existence of Adverse Policies and Regulations

A total of twenty-four of thirty-one respondents in the study, 72% at UMAN and 85% at UNB, felt there were policies or regulations that adversely affected the implementation of NTTTP as relates to industrial experience. The percentage comparison indicates common agreement between the two groups with only 28% at UMAN and 15% at UNB disagreeing.

Policies and regulatory factors most cited in both groups were immigration regulations followed by university or college policy and contract provision. Others included union laws and the short duration of the program. The manner in which these factors affected the program were, somehow, different for the two groups. At UMAN, the factors adversely affected the program mostly by not allowing for payment of stipends or remuneration for work done. Comments revealed that many students would prefer the choice for payment be left to the discretion of the employer. Lack of payment, many respondents felt, affected negatively respondents' motivation for, and attitudes towards, work. At UNB, the factors affected them adversely by not allowing for the actual placement exercise.

TABLE 24

FREQUENCY/PERCENTAGE OF RESPONSES TO EXISTENCE OF ADVERSE POLICIES OR REGULATIONS REGARDING EXPERIENCE FOR UMAN, UNB, AND COMBINED GROUPS

	UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
INDUSTRIAL WORK EXPERIENCE	YES	NO	YES	NO	YES	NO
	f/%	f/%	f/%	f/%	f/%	f/%
3.10 Were there any policies or regulations that adversely affected the implementation of NTTTP as relates to industrial experience?	13/72.22	5/27.78	11/84.62	2/15.38	24/77.42	7/22.58

* Total percentage may be less than 100% because of non-respondents

Item 3.11: Stronger and Weaker Features of Industrial Work Experiences

The stronger features of the industrial work experience were the practice work, and exposure to the world of work and related technology field, at UMAN. Working with and getting to know people was mentioned as another strong feature. At UNB, exposure was mentioned by more than one-half of the respondents. The weaker features of the industrial work experience were, again, the lack of payment cited by more than one-third of the interviewees in UMAN. The lack of study plan during placement was also identified by four respondents. Some of the UNB respondents mentioned the briefness of the industry visits and the unrelatedness of the experience.

Summary

The analysis in this section reveals many areas of difference between UMAN and UNB respondents. The principal exceptions is in their common agreement that work placement was necessary for effective implementation of the NTTTP and the existence of adverse immigration and contract policies and regulations.

More than three quarters of the respondents (78% in UMAN and 77% in UNB) felt industrial work experience placement was necessary for the B.Ed program to help students gain familiarity with related industries and exposure to the world of work as well as relate theory to practice. Nearly all respondents in UMAN reported their industrial work activities to include working in industries related to their technology fields while all in UNB reported industry visits and follow up reports in the visits. A significant difference was obtained when nearly three quarters of the students (72%) at UMAN reported meeting their perceived

objectives per industry work placement, while 77% in UNB felt they did not.

Sixteen students at UMAN (89%) and 69% in UNB reported that their future plans did not change. In UMAN, the short duration of the placement, and lack of technology courses during B.Ed training were among the reasons provided for the lack of change in their initial plans. In UNB the reasons included lack of actual industrial placement and the briefness of the visits. About six students indicated that their plans were independent of the industrial work activities. Over 83% of UNB respondents would prefer a different experience while 85% in UMAN would not for the opportunity provided for practice work. At UMAN, 94% had opportunities for placement either in private or public industry settings. Over ninety percent (92%) in UNB did not but would like to be placed, three of them even on a volunteer basis for the practice experience.

For those who were placed in industry, the experience enabled them to acquire skills for working in industry (67%), appreciate working in industry (89%), and gain valuable experience not available in the classroom (72%). Only 44% agreed that the work experience enabled them to become more confident teaching in technology areas. A majority of the respondents felt the experience was enjoyable (67%) and useful (72%). One half (50%) felt it was relevant to their needs as vocational teachers in Nigerian classrooms. While the lack of placement did not allow for enough rest for the transition from classroom work to eight-hour employment, one-third would like a longer placement than what they had. Supervision by college officials and the evaluation

methods were perceived as satisfactory. Thirteen of the eighteen students felt the experience was relevant to teaching which might not necessarily be in classroom, but as well in related industries.

Both groups of students, 72% in UMAN and 85% in UNB, felt that there existed various policiesthat adversely affected the placement in different ways. At UMAN the adverse immigration and college policies led to a lack of remuneration for work done, while in UNB immigration, university and contract policies precluded actual work placement in the province.

The stronger features of the industry-related component in UMAN were exposure to industries, the opportunities for practice, and working with and getting to know people. At UNB, exposure was mentioned by more than one half of the respondents. The weaker features were again lack of placement, cited by more than one-third of the respondents in UMAN, and the briefness of visits at UNB.

Student Teaching Experience

Student teaching for preservice teachers is usually considered a necessary component of training programs for preservice teachers. The items in this section in Student Teaching (school internship) were designed to collect students' views with respect to the student teaching component of the NTTTP as obtained in each of the two settings. Interviewees might or might not have been placed in public schools or colleges for the practice experience. Tables 25-27 summarize the data with Appendix E.04 containing the x^2 tables and univariate data.

Items 4.1 - 4.1.1: Necessity of Student Teaching Placement and Reasons

Interviewees were requested to rate whether "student teaching practice (placement experience) was necessary for this B.Ed teacher program". All but one respondent for a total percentage of 97% agreed, showing common agreement in both groups as indicated within Item 4.1 of Table 25. Opportunity for practical teaching mentioned by twenty-one of the thirty-one students (nine in UNB and twelve in UMAN) was given as the primary reason. Other reasons cited included the exposure to real classroom that student placement provided. Many respondents also cited professional requirements and experimentation of concepts for their reasons.

Item 4.2: Meeting the Objectives of Student Teaching Experience and Reasons

Did interviewees meet the objectives for the student teaching component of NTTTP through the experience they had? In UMAN, 94% chose the "Yes" category while 85% at UNB chose the "No" category. Item 4.2 in Table 25 shows the comparative frequencies and percentages. A x^2 test for significance differences yielded a value of 19.886 (df = 1) at a probability level of $P \leq .0001$. This result, presented in Table E-15, confirms split opinions between the two groups about meeting the objectives of student teaching.

UMAN respondents felt they met the objectives by actually "performing the teaching act in actual classroom settings in the real world". They tried various teaching techniques and methods they learned at the university and college in the public school situation. They met pupils, understood classroom situations, and applied themselves. Other

TABLE 25

FREQUENCY/PERCENTAGE OF RESPONSES TO EFFECTIVENESS OF STUDENT TEACHING EXPERIENCE FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
4.1	Student teaching practice was necessary for this B.Ed. teacher program.	18/100.00	-	12/92.31	1/7.69	30/96.77	1/3.23
4.2	You met the objectives for the student teaching component of NTTP through this experience you had.	17/94.44	1/5.56	2/15.38	11/84.62	19/61.29	12/38.71
4.3	Your future plans have changed as a result of this experience.	5/27.78	13/72.22	2/15.38	11/84.62	7/22.58	24/77.42
4.4	A different experience would have been preferable in your situation.	3/16.67	15/83.33	11/84.62	2/15.38	14/45.16	17/54.84
4.5	Did you have an opportunity for supervised student teaching practice?	17/94.44	1/5.56	-	13/100.00	17/54.84	14/45.16

ways specified were the opportunity to acquire new skills, observe, evaluate self and gain confidence. At UNB students indicated they did not have opportunity for what many considered professional and universal (Nigerian as well as Canadian) requirements for teaching. Some felt their "practice was phoney; not real in terms of student composition" (classmates), "evaluation methods" (student evaluating student), "lack of exposure to real world classroom before strangers" (pupils and teachers). Few respondents felt, as a result, that they lacked the opportunity to mix with the community, compare school systems, and learn in actual classroom from their mistakes before taking on real teaching assignments on their own.

Items 4.3 - 4.3.1: Change of Future Plans or Otherwise and Reasons

Interviewees' future plans did not change as a result of the student teaching experience as shown by the "No" response from 72% of the respondents at UMAN and 85% at UNB. Item 4.3 in Table 25 illustrates the common disagreement among the two groups.

Respondents who disagreed gave as the reason that their plans are independent of the student teaching experience. Many said they already made up their minds about careers. Others felt the duration of student teaching was too short to cause any appreciable change in any direction - for or against teaching in classroom. Those who said their plans changed felt they learnt to appreciate or like teaching, or felt more confident teaching than before. Some respondents at UNB felt the lack of student teaching experience caused them to be "really afraid" of teaching successfully.

Item 4.4: Preference for Different Experience

"A different experience would have been preferable in their situation" was the response from 85% of the interviewees at UNB. At UMAN 83% would not prefer anything else in place of student teaching. Table 25 Item 4.4 shows the apparent difference in the category frequency and comparative percentage between the group. Further analysis revealed a x^2 value of 14.072 (df = 1) at a $P \leq .0002$ level of significance. The result confirmed a split opinion between the two groups. See Table E-16 for details.

Many of those who would not prefer any other experience at UMAN felt student teaching practice was vital to the success of the program, as a professional requirement for would-be teachers. It also tied in with the purpose of the program and served to provide exposure and experimental ground. Lack of it would defeat the main objective of the NTTTP. The evidence of the need for student teaching was shown in UNB responses where all respondents who were not placed in public school classroom for teaching felt they needed the formal teaching experience before "real and actual students".

Item 4.5: Opportunity for Placement

All but one student (94%) at UMAN had opportunity for supervised student teaching practice. All those interviewed at UNB were not placed in classroom. This obvious split response is shown in Table 25 Item 4.5 and Table E-17 of Appendix E.

Item 4.6: School Courses and Levels Taught

A look at the list shows that most of the UMAN students taught courses in their second teachable (minor) areas. All were placed in public high or technical/vocational schools. Also, they taught mostly in the senior high school level comprising grades 9, 10, 11 and 12.

The Practice of Student Teaching: For Those who Student-Taught

This part of the section analyses UMAN students' responses to student teaching experience.

Items 4.6.1 - 4.8.3: Effects of Student Teaching Placement

The student teaching experience enabled 94% of the respondents to acquire confidence for teaching in a classroom, 100% to understand duties of classroom teachers and 83% to become aware of school procedures in the province. It also enabled 89% of the respondents to improve their teaching skills. All the students (100%) said the experience enabled them to understand teaching demands more than before. Equal number of students, sixteen of eighteen (89%) felt the student teaching experience was enjoyable and useful. For teaching in Nigeria 61.11% would choose similar type of school (vocational/academic high school or college). Two-thirds (67%) of the respondents would choose the same class level while 89% would choose the courses they taught. These results are summarized in Table 26.

Item 4.9.1 - 4.9.5: Comments on Provisions of Student Teaching Placement

All but one respondent felt the student teaching, in terms of timing, was "bad", "wrong", "awkward" or "unsuitable". Further

TABLE 26

FREQUENCY/PERCENTAGE RESPONSES TO PROVISION OF STUDENT TEACHING EXPERIENCE FOR UMAN GROUP

		UMAN (N=18)		
		SA/A	U	D/SD
		f/%	f/%	f/%
4.6	The student teaching experience enabled you to:			
4.6.1	- acquire confidence for teaching in a classroom	17/94.44	-	1/5.56
4.6.2	- understand duties of classroom teacher	18/100.00	-	-
4.6.3	- become aware of school procedures in the province	15/83.33	2/11.11	1/5.56
4.6.4	- improve your teaching skills	16/88.89	1/5.56	1/5.56
4.6.5	- understand teaching demands more than previously	18/100.00	-	-
4.7	The teaching experience was:			
4.7.1	- enjoyable	16/88.89	-	2/11.11
4.7.2	- useful	16/88.89	1/5.56	1/5.56
4.8	For teaching in Nigeria, you would like to choose a similar:			
4.8.1	- type of school (Vocational/Academic High School or College)	11/61.11	2/11.11	5/27.78
4.8.2	- class level	12/66.67	1/5.56	5/27.78
4.8.3	- course you taught	16/88.89	-	2/11.11

elaboration indicated that the student teaching was carried out at a time "almost all teachers were already scheduled for examination", "when students' attention was low" and "too close to the end of the school year". The schools were "winding down on other activities" and "ready for examination". So to these respondents the timing "was hard on the cooperating teachers" and the cooperating teachers found the time difficult to manage the student teachers within their classes. To respondents in this group cooperating teachers feared interruption of their good class schedule, students were prepared to leave school and not ready for new material, technique, experimentation or change of hands from the regular class teacher.

The duration of the student teaching appeared to be too short in the views of about two-thirds of the students. One-third felt it was suitable or fairly satisfactory. All the students felt supervision was satisfactory as was evaluation method used. Relevance of student teaching to their needs, which some indicated may not be teaching in classrooms, was also rated as satisfactory.

Item 4.9.6: Comments on Other Issues of Student Teaching Placement

Other issues respondents identified were that student teaching should either be spread out or at the beginning of school year. Many felt student teaching gave them opportunity to meet people, develop personal relations with teachers and learn from their experiences. Also as was identified by a respondent there was need for cooperating teacher involved in order to improve relevance to home situations.

Policies, regulations and effects on student teaching

In this part of the section, a categorization of issues that were responded to by interviewees in both groups is presented.

Item 4.10: Existence of Adverse Policies and Regulations

There appears to have been no policies that affected adversely the implementation of the student teaching for many respondents at UMAN according to the views of thirteen respondents (72%). Only 29% felt there were. Over ninety percent (92%) of respondents at UNB felt there were such policies and regulatory factors. Table 27, Item 4.10 present the comparative percentages and frequencies. An analysis with a x^2 test revealed a value of 10.782 (df = 1) at a probability level of .0010 for a split opinion. See Table E-18.

The policies mentioned by UMAN respondents were contract, university/college, and immigration. Contract and college policies affected the time for placement adversely. Immigration regulations did not allow interviewees to receive allowances or stipends according to two of the respondents.

At UNB many respondents cited university, contract and immigration policies. Some also cited provincial law and cultural factors. University policies of training "foreigners" who are not going to teach in New Brunswick did not allow for any form of internships; take certification courses or be placed in schools in New Brunswick. Time limitation brought about by contract policy was another factor. Also, few respondents' perceived that the contract agents, FME and CBIE, seemed not to have considered that component necessary and accordingly did not request the department to arrange the internship compulsorily

TABLE 27

FREQUENCY/PERCENTAGE OF RESPONSES TO EXISTENCE OF ADVERSE POLICIES OR REGULATIONS REGARDING UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
4.10	Were there any policies or regulations that affected the implementation of the student teaching component of NTITP.	6/33.33	12/66.67	12/92.31	1/7.69	18/58.06	13/41.94

* Total percentage may be less than 100% because of non-respondents

for students. A respondent felt that the community might not allow foreigners to teach their children on account of cultural factors.

Item 4.12: Activities of Student Teaching

All but two respondents at UMAN student-taught. The two respondents observed their cooperating teacher most of the time. At UNB, interviewees said they prepared lessons in their subject areas and taught to their colleagues. They were evaluated by class members.

Item 4.13: Stronger and Weaker Features of Student Teaching

The stronger features of the student teaching component were the exposure to real classroom situation and the opportunity for practice mentioned by twelve of eighteen respondents at UMAN. At UNB, the opportunity to practice teaching before their peers and preparation of lesson plans were cited. Criticizing the video tape of one's own teaching was also a strong feature.

The weaker features at UMAN mentioned was mainly the timing. Class discipline was another which many respondents felt was related to the timing - end of school year. Two respondents complained about the location of their schools. Short duration came up as a weaker feature in few instances. At UNB evaluation by colleagues was perceived as a weaker feature. Practice was also not long enough to cause desired impact. The experience did not seem to be in a natural/real classroom setting composed of actual students.

Summary

This section generated both general and specific information on the student teaching placement component of the NTTTP. Nearly all the respondents in both groups (97%) perceived student teaching placement (internship) as a necessary part of NTTTP implementation. Over 94% of UMAN respondents perceived they met the objectives of the student teaching component of the NTTTP, while about 85% in UNB felt that they did not, for not having the opportunity to practice teaching in real classrooms, as did UNB students. The student teaching experience did not change the future plans of 72% of the UMAN respondents and that of 85% in UNB. All the same, 85% of the respondents at UNB would prefer a different experience to what they did; 83% in UMAN would not.

All students at UMAN and none at UNB had the desired opportunity for student teaching placement in Canadian public schools. All variables relating to its necessity, usefulness, applicability, and relevance to Nigeria were perceived positively by nearly all respondents. Timing and duration were negatively perceived. Students perceived student teaching placement as an essential component of NTTTP implementation for exposure to real world teaching situations and as an opportunity for practice. Adverse policies existed in UNB which affected the implementation of the student teaching component of the NTTTP according to the views of 72% of the respondents. Over 90% of the respondents at UMAN did not perceive the existence of such adverse policies or regulations. All but two respondents in UMAN student taught in real public school classrooms while UNB respondents practiced teaching before their colleagues in the university classroom. The

stronger features of these experienced in UMAN were the actual practice teaching and exposure to the classroom and community. At UNB it was the very opportunity for peer teaching and preparation of lesson plans. Weaker features perceived in UMAN were the poor timing and short duration of the practice placement, while the total lack of actual real-life experience and peer evaluation were among those weaker features perceived in UNB.

Program Thrust and Focus

The B.Ed programs in the two universities were assumed to have different emphasis based on the specific program goals and objectives as guided by the separate university policies. Therefore, interview items analysed in this section were designed to request respondents' views on the B.Ed degree program's thrust and focus (to work in industry or teach in the classroom). The items were based on interviewees' university education in Canada in relation to their potential work situations in Nigeria. Tables 28 and 29 summarize the scaled items which are described in this section with the qualitative data which univariate data are included in Appendix E.05.

Item 5.1: Ready Application of Experiences and Skills in Industry

Within each group, respondents' opinions were nearly equally divided at UMAN and was split at UNB between agreement and disagreement, in respect of experiences and skills being more readily applied in industry than in the classroom. Item 5.1 in Table 28 shows the distribution which indicate a high percentage (17% in UMAN and 38% in UNB) in the undecided category.

TABLE 28

FREQUENCY/PERCENTAGE OF RESPONSES TO PROGRAM THRUST AND FOCUS FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
		SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
		f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
5.1	Your experiences and skills are now more readily applied in industry than in the classroom.	7/38.89	3/16.67	8/44.44	4/30.77	5/38.46	4/30.77	11/35.48	8/25.81	12/38.71
5.2	You have more confidence now in teaching than working in industry.	8/44.44	3/16.67	7/38.89	3/23.08	6/46.15	4/30.77	11/35.48	9/29.03	11/35.48
5.3	Your technology area lends itself readily to teaching at secondary school level in Nigeria.	11/61.11	1/5.56	6/33.33	5/38.46	1/7.69	7/53.85	16/51.61	2/6.45	13/41.94
5.4	The skills and knowledge gained in the B.Ed. program are equally applicable in school as in industry.	6/33.33	2/11.11	10/55.56	7/53.85	1/7.69	5/38.46	13/41.94	3/9.68	15/48.39

Qualitative univariate analysis in respect of this variable showed a strong bias to industry within the section and by cross sectional analysis. Qualitative analysis revealed lack of confidence, a problem of inadequate preparation, rathern than applicability of the skills.

Respondents' comments revealed that the dual nature (technology qualification from community colleges, and teacher preparation) through NTTTP accounted for reasons many interviewees at both UMAN and UNB felt their skills were applicable to some extent in both areas. Professional teacher preparation during the two years caused only four respondents at UMAN and two at UNB to feel their skills and experiences were now more readily applied in teaching than working in industry.

The provision for technical elective courses in their technology areas in UNB and placement in industrial settings at UMAN caused two respondents each at UNB and UMAN respectively to feel they could apply their skills and experiences more in industry. Other factors that reinforced orientation to industry were interest in practice-oriented occupation, and type of technology field of specialization.

Items 5.2: Students' Relative Confidence in Teaching and Working in Industry

At UMAN, only 17% and nearly one-half (46%) at UNB were undecided about having more confidence in teaching than working in industry. As indicated in Item 5.2 Table 28, 44% at UMAN and 23% in UNB agreed while 39% and 31% respectively disagreed that they had more confidence for working in industry. Qualitative information revealed that, again, strong interest in practical occupation and the dual nature (technology component of the teacher preparation) were responsible for many respondents' feeling they had less confidence to work in industry. Placement in industry was perceived to revive some respondents' interest for working in industry. Teacher preparation courses and student teaching placement caused students in UMAN to perceive they had some

confidence in teaching. Lack of exposure to formal work and teaching experiences created some uncertainties that some respondents in UNB had acquired confidence working in neither area. The type of technology specialization played a part in students' confidence for either industry work or classroom teaching. Some students felt their teaching courses were, as far as they knew, not available in secondary schools in Nigeria.

Item 5.3: Technology Areas and Secondary School Teaching

At UMAN, 61% of the respondents felt their technology areas lent themselves readily to teaching at the secondary school level in Nigeria. Only 38% at UNB felt in a similar way. While 33% disagreed in UMAN more than one-half (54%) disagreed at UNB, apparently believing that their technology areas do not lend themselves to teaching at that level. Table 28 Item 5.3 illustrates the comparative frequency counts and percentages in each category. A x^2 test used for further analysis showed no significant differences in the opinions betwen the groups. The result in Table E-19 of Appendix E reveals a x^2 value of 1.561 (df=2) at $P \leq .4582$ probability level.

Uncertainty about availability of equipment especially in computer and a few other technology areas in Nigerian secondary schools accounted for either indecision or desire among respondents to teach at a higher than secondary school level. Five students in UNB (38%) and five (28%) in UMAN stated their technology areas lent themselves more to teaching at a level higher than the secondary school. Six respondents at UNB and four at UMAN saw their technology areas lending themselves readily to teaching at the secondary school level. Some respondents

also felt the related arts/science areas of their technology were readily teachable at secondary school level.

Item 5.4: Equal Applicability of Skills and Knowledge in School as in Industry

While 56% of respondents at UMAN disagreed that the skills and knowledge gained in the B.Ed program were equally applicable in school as in industry, an almost equal percentage, 54%, agreed in UNB. Item 5.4 in Table 28 shows the category frequencies' counts and comparative percentages in both groups. A x^2 test result produced a value of 1.304 (df = 2) at $P \leq .5209$ probability level to reveal an insignificant difference between the groups' opinions. The result is presented in Table E-20 of Appendix E.

Item 5.5: Occupational Advantage Due to Dual-Focus NTTTP Preparation

Many respondents, 83% in UMAN and 92.31% in UNB felt they had occupational advantage in Nigeria as vocational teachers due to the dual focus of the industry/school B.Ed preparation. The common agreement produced a combined category percentage of 83.87% agreeing with only 9.68% disagreeing in both groups, as shown in Table 29. The reasons given were similar in both groups. The advantage resulted from the usual nature of their B.Ed degree in vocational education. Students can work either in industry and/or in teaching. Some respondents did not know the job market in Nigeria to really assess the occupational advantage they might have. Two respondents one each from the two groups felt their education in overseas setting might give them greater recognition socially and in terms of competence than those who did similar program in Nigeria.

TABLE 29

FREQUENCY/PERCENTAGE OF OCCUPATIONAL ADVANTAGE
DUE TO DUAL FOCUS FOR UMAN, UNB,
AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
5.5*	As a vocational teacher, does the focus (to industry or teaching) in your B.Ed. program provide you an occupational advantage in Nigeria?	14/82.35	3/17.65	12/92.31	-	26/83.87	3/9.68

*Total percentage may be less than 100% because of non respondents.

Item 5.6: Adequacy of B.Ed Preparation for Industry and for Teaching

Interviewees were asked to comment on how adequately the NTTTP prepared them for work in industry/business/labour, and teaching in Nigeria. Over two-thirds of the respondents at UMAN and eight at UNB felt their preparation for industry/business/labour was adequate. Reasons included knowledge enrichment in the technology areas and the benefits of practice attachment components cited in UMAN. Related courses in management, supervision and study of industry were also mentioned at UMAN. Increased knowledge in technical areas through the technical electives courses, and awareness of problems with, and safety of equipments were the reasons offered by a majority of the students at UNB. Participants who felt the preparation was inadequate in UMAN gave their reasons to include lack of adequate preparatory courses in the technology areas, despite their two or three year programs of technological training in community colleges. Both groups felt the emphasis was more in professional teacher preparation than for work in industries.

All the eighteen respondents at UMAN and eight at UNB felt the NTTTP prepared them adequately for teaching in classroom. Reasons provided by UMAN respondents included experience and skills to improve teaching methods, clarify misconceptions and the opportunity they had to learn from the views of practicing teachers and experts through student teaching. Some UNB respondents said education courses helped to provide skills in, and methods for, teaching. Again, the lack of practice experience was mentioned by many at UNB.

Summary

Opinions within groups were nearly equally divided at UMAN (39% and 44%) and at UNB (31% respectively) between agreement and disagreement in respect of experiences and skills being more readily applied in industry than in the classroom. At UMAN, only 17% and nearly one-half (46%) at UNB were undecided about having more confidence in teaching than working in industry. The analysis of this item showed that 44% at UMAN and 23% in UNB agreed, while 39% and 31% respectively disagreed that they had more confidence working in industry. The dual nature of the NTTTP preparation (teacher education emphasis with technological education) was perceived to be the primary cause of indecisions and uncertainty aong respondents.

At UMAN, 61% of the respondents felt their technology areas lent themselves to teaching at the secondary school level while 54% at UNB felt the opposite. Many respondents, 82% in UMAN and 92% in UNB, felt they had an occupational advantage in Nigeria as vocational teachers due to the dual focus of the industry/school B.Ed degree preparation. Over two thirds of the respondents at UMAN and eight of the thirteen respondents in UNB felt their preparation for work in industry/business/ labour was adequate. Also, all the respondents in UMAN and, again, eight respondents in UNB felt the NTTTP prepared them adequately as well for teaching in the classroom, which may not necessarily be at the secondary school level.

Overseas Training Concerns

The section on "Overseas Training Concerns" solicited interviewees' views on the concerns of overseas education as relates to the contracted technical teacher training program. Table 30 summarizes the results of interviewees' responses. These data are analysed and described in this part of the chapter.

Items 6.1.1 - 6.1.2: Group Study Overseas

Agreement and disagreement were common between the two groups with respect to the items on group study overseas. At UMAN, 73% of respondents and 62% at UNB felt studying as a group was very comfortable. Also, the same respective percentages in UMAN and UNB disagreed that studying as a group limited their interaction with other students. These response category frequencies and percentages are shown in Items 6.1.1 and 6.1.2 of Table 30. In both groups, a total of 68% felt in these respective ways.

Studying as a group appeared to have promoted unity among the respondents according to 67% of interviewees at UMAN and 69% at UNB. Fifteen respondents at UMAN (83%) and nine at UNB (69%) felt studying as a group should be encouraged. Table 30 Items 6.1.3 and 6.1.4 show the comparative frequency counts and category percentages on these items.

Item 6.2: Faculty Members Structuring Relevant Learning Experiences

Marginally, respondents disagreed that faculty members who "understand your culture appeared to be able to structure learning experiences that have direct relevance to your needs in Nigeria". Only

TABLE 30

FREQUENCY/PERCENTAGE OF RESPONSES TO OVERSEAS TRAINING CONCERNS FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
		SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
		f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
6.1	Studying as a group from one country:									
6.1.1	- was very comfortable	13/72.22	2/11.11	3/16.67	8/61.54	3/23.08	2/15.38	21/67.74	5/16.13	5/16.13
6.1.2	- limited your interaction with other students	5/27.78	-	13/72.22	3/23.08	2/15.38	8/61.54	8/25.81	2/6.45	21/67.74
6.1.3	- promoted unity among you	12.66.67	5/27.78	1/5.56	9/69.23	3/23.08	1/7.69	21/67.74	8/25.81	2/6.45
6.1.4	- should be encouraged	15/83.33	2/11.11	1/5.56	9/69.23	3/23.08	1/7.69	24/77.42	5/16.13	2/6.45
6.2	Faculty members who understand your culture appeared to be able to structure learning experiences that have direct relevance to your needs in Nigeria.	6/33.33	2/11.11	10/55.56	2/15.38	4/30.77	7/53.85	8/25.81	6/19.35	17/54.84

33% at UMAN and 15% at UNB agreed, while 56% and 54%, respectively, disagreed. There was a large percentage (31%) at UNB in the undecided category, while 11% remained undecided at UMAN.

The concerns regarding problems in overseas technical teacher education and how these could be alleviated were suggested by the students surveyed.

Item 6.3: Technological Concerns

Technological differences between Nigeria and Canada appear to be a major concern of many respondents. The availability of facilities, technological absolescence, transfer and application of skills and knowledge, and the problems of irrelevancy due to Canadian content in various courses were the most often cited concerns. In order of decreasing percentage, means of alleviation of the specified concerns a need for adequate entry and re-entry orientations to prepare students for technological and cultural differences. Respondents also return to visit family, and understand prevailing economic situations, as well as get acquainted with occupational information prior to graduation.

To minimize obsolescence, promote relevance of skills and knowledge, suggested means included studying in fields that are readily applicable at home. Other measures suggested to alleviate some of these problems included related courses on Nigerian issues, and comparative studies through flexibility in course assignments.

Item 6.4: Self-Perceived Need re Transfer of Skills and Knowledge

Respondents' self-perceived needs in terms of transfer of skills and knowledge are again associated with technological conflict. About

two-thirds of the students interviewed stated perceived needs to include lack of adequate laboratories, workshops and teaching aids and the challenge of relating learning to Nigerian situation, as well as remaining current in one's professional fields. Apparent cultural concerns included application of theories and methods based on Canadian content to Nigerian settings, and providing examples familiar to students in Nigeria. Implementation of new ideas was identified as a concern. Lack of expertise regarding equipment repairs, and lack of resources to function optimally were also identified as needs of the respondents.

Summary

As perceived by an equal percentage of respondents (68%) in the two groups, it was found in this section that studying as a group from one country in Canadian training sites overseas was comfortable; it did not limit clientele's interaction with other Canadian university students, but instead, group study promoted unity among Nigerians. Over three-quarters (77%) of the respondents felt that group study overseas should be encouraged.

Instructors were not available who understood recent Nigerian situations and helped students structure relevant courses as perceived by 55% of the total respondents in the two groups. Besides, respondents perceived that the NTTTP did not have enough curricular flexibility to allow the inclusion of Nigerian content to neutralize the Canadian culture-based content in the B.Ed degree program theories and methods. Also, there was no room for limited specialization in engineering technology areas and program fields to emphasize skills required in

Nigerian job markets. The result was serious concerns and potential problems in transferring and applying the skills learnt through NTTTP. Concerns that related to transfer and application of knowledge and skills, and the relevance/obsolescence of technological skills were identified with some suggested remedies.

Professional Goals

This part of the analysis presents the results from Section 7 of the interview schedule which requested respondents' views on their "professional goals" as these might have been affected by the NTTTP experiences.

Item 7.1: Importance of B.Ed Degree

Interviewees' responses to the statement that the B.Ed program is important to their long term profession showed a common agreement between the two groups. A combined percentage of agreement was 84% in both groups, 94% at UMAN and 69% at UNB. Only one respondent at UMAN and three (23%) at UNB disagreed with the statement. Table 31 illustrates this result.

Item 7.2: Preference for B.Tech Degree

Given the option, all (97%) of the NTTTP students interviewed would prefer a degree in their own respective technology areas to the B.Ed degree. Table 32 Item 7.2 illustrates this result.

Analysis of qualitative information revealed that, even though the B.Ed degree is important to over four-fifths of respondents, they would prefer the technology degrees for various reasons. The most frequently

TABLE 31

FREQUENCY/PERCENTAGE RESPONSES TO IMPORTANCE OF B.ED. TO PROFESSIONAL GOALS FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)			UNB (N=13)			UMAN/UNB (N=31)		
		SA/A	U	D/SD	SA/A	U	D/SD	SA/A	U	D/SD
		f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%	f/%
7.1	The B.Ed. degree obtained through this program is very important to your long term professional goals.	17/94.44	-	1/5.56	9/69.23	1/7.69	3/23.08	26/83.87	1/3.23	4/13.90

TABLE 32

FREQUENCY/PERCENTAGE RESPONSES TO PROFESSIONAL GOAL VARIABLE FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
7.2*	Given the option, you would prefer a degree in your technology area to the B.Ed.	18/100.00	-	12/92.31	-	30/96.77	-
7.3.1	Have you fulfilled that objective?	16/88.89	2/11.11	12/92.31	1/7.69	38/98.32	3/9.68
7.5	Has NTTTP experiences altered any of your initial occupational plans?	14/77.78	4/22.22	10/76.92	3/23.08	24/77.42	7/22.58

*Total percentage may be less than 100% because of non respondents.

TABLE 33

MEAN RATING OF IMMEDIATE PLANS
UPON B.ED GRADUATION

Options Regarding Immediate Plans	MEAN SCORE		
	UMAN	UNB	BOTH UMAN/UNB
Seek employment in Nigeria	2.44	2.69	2.54
Seek employment in Canada	4.88	4.70	4.81
Further studies in technology area	2.22	1.54	1.94
Further studies in Education	2.94	2.69	2.83
Further studies in another field	2.50	3.23	2.77

* Options were rated from 1-most preferred to 5-least preferred. A mean ($\bar{x}$) score of $\bar{x} \leq 2.50$ was chosen for significant group preferred option.

stated reasons were interest, love of practical work and preference for industry. Building on prior educational qualification, closeness to a technology degree, shorter time, and systematic progression were other reasons. Several respondents indicated that B.Tech would be more challenging content-wise, worthwhile professionally, and carry greater recognition. Besides, for a few of the respondents, it would lead to greater career options, more specialization in the technological field, better pay, and they could still teach at college level.

Item 7.3: Reasons for Accepting NTTTP Award

More than one-half of those interviewed at both institutions indicated that they needed a university degree, the type notwithstanding. Another major reason cited by about twelve students was the convenience a scholarship provided when financial constraints limited their opportunities for further education. A stepping stone to other professions, opportunity to gain more technology courses, and to escape from problems at home were some of the other reasons cited.

Item 7.3.1: Fulfillment of Students' Own Objectives

As shown in Item 7.3.1 Table 32, over 90% of the respondents in the two groups felt they have fulfilled their objective; 89% at UMAN as were 92% at UNB. Acquisition of B.Ed and having additional qualification to the technology diploma were given as the main reasons respondents felt they have fulfilled their own objectives.

Item 7.4: Immediate Plans Upon B.Ed Graduation

Further studies in their technology areas were overall rated most preferred ($\underline{x} \leq 1.94$) by both groups by respondents as shown in Table 33. That option had a mean score of 1.94. With a mean score of $\underline{x} = 2.50$ required for group preferred option, UMAN respondents showed preference in the following order. "Further studies in technology area" came first (2.22). The second preferred option was "seek employment in Nigeria" (2.44) and the third was "further studies in another field" (2.44). UNB respondents showed significant preference only in "further studies in technology technology area" ($\underline{x} \leq 1.54$). With the UNB and the combined UMAN/UNB group only "further studies in technology area" fell within the 2.50 mean preference limit. Seek employment in Nigeria was marginally preferred by both groups (2.54).

Item 7.5: NTTTP Altering Initial Occupational Plans

NTTTP appeared to have altered the initial occupational plans of more than three-quarters of the interviewees, as indicated by 78% at UMAN and 77% at UNB. This result, in Table 32 Item 7.5, shows some common agreement among majority within each group.

Analysis of the qualitative responses regarding how students' initial plans had changed revealed many of the respondents felt that, with a B.Ed, it was easier to proceed higher up in education than with the diploma. Twelve respondents felt this way. Also, with the degree in vocational education and their technology diploma, greater opportunities existed in other related areas. This was the feeling of seven interviewees.

Summary

The analysis in this section has shown that the B.Ed degree obtained through the NTTTP was important to students' long-term professional goals as perceived by 94% at UMAN and 69% at UNB. However, given the option, all the interviewees but one (97%), who liked both degrees equally, would prefer a degree in their technology areas (B.Tech) for the social, professional, and occupational advantages the B.Tech degree carries over the B.Ed degree in Nigeria.

It was also revealed that over 90% of the students had fulfilled the objectives for which they accepted the NTTTP award. Analysis also showed that upon completion of the B.Ed degree, graduates at both institutions would prefer to do further studies, mostly in their "technology areas" (UMAN: $\underline{x} \leq 2.22$; UNB: $x \leq 1.54$) and in "other fields" (UMAN: $x \leq 2.50$; UNB: $\underline{x} \leq 3.23$) more than in "education" (UMAN: $\underline{x} \leq 2.94$; UNB: $\underline{x} \leq 2.69$). On the whole, the NTTTP altered the occupational plans of over three-quarters of the clientele.

Occupational Teacher Education

In this part of the analysis respondents' perceptions of their particular B.Ed degree programs are analysed and described. The scaled responses are summarized in Tables 34 and 35.

Item 8.1: Suitability of B.Ed Programs for Adoption to Nigeria

A total of twenty-nine of the thirty-one interviewees, or 94% of UMAN and 92% in UNB felt the teacher program could be adopted with modifications for technical teacher production in Nigeria. Table 34 Item 8.1 shows this result. Two of the reasons given by respondents

TABLE 34

FREQUENCY/PERCENTAGE TO THE APPROPRIATENESS OF THE OCCUPATIONAL TEACHER EDUCATION FOR UMAN, UNB, AND COMBINED GROUPS

		UMAN (N=18)		UNB (N=13)		UMAN/UNB (N=31)	
		YES	NO	YES	NO	YES	NO
		f/%	f/%	f/%	f/%	f/%	f/%
8.1	This teacher education program can be adopted with modification to accelerate the production of technical teachers in Nigeria.	17/94.44	1/5.56	12/92.31	1/7.69	29/93.55	2/6.45
8.2	You would recommend this B.Ed. program for your state.	16/88.89	2/11.11	11/84.62	2/15.38	27/87.10	4/12.90
8.3	Is recruitment of community college graduates with a diploma a good concept for this vocational teacher education program?	14/77.78	4/22.22	7/53.85	6/46.14	21/67.74	10/32.26
8.4	Your field of study is suitable for the NTTTP award which was focused on training for vocational technical teaching.	16/88.89	2/11.11	9/69.23	4/30.77	25/80.65	6/19.35
8.5	Are you satisfied with the 24-month schedule for this B.Ed. program?	10/55.56	8/44.44	5/38.46	8/61.54	15/48.39	16/51.61
8.7*	Was the B.Ed. program modified for NTTTP student teachers in your setting?	13/72.22	4/22.22	12/92.31	1/7.69	25/80.65	5/16.13

* Total percentage may be less than 100% due to non respondents.

were: (1) that the graduates could function effectively in a classroom setting, and (2) the B.Ed approach could produce more teachers within a short time.

Item 8.2: Recommendation of B.Ed Programs to Interviewees' States and Suggested Modifications

A high percentage (87%) of common agreement was also obtained for both groups, indicating that respondents would apparently recommend the B.Ed program for their states. See Table 34 Item 8.2 for the comparative frequencies and percentages. Time efficiency was one of the reasons respondents cited since their states needed more qualified technical teachers within a short period. The recommendation would be contingent upon some flexibility to promote relevance by modifying some contents of program courses to reflect Nigerian situations, and providing adequate machinery for monitoring program effectiveness and relevance.

Item 8.3: Community College NTTTP Clientele Being a Good Concept

Respondents appeared to feel that recruitment of community college graduates with technology diplomas was a good concept for the teacher education program according to the responses of 78% in UMAN and 54% in UNB. Item 8.3 Table 34 also shows that 22% of the respondents in UMAN and 46% in UNB disagreed. A x^2 test result revealed a value of 1.978 (df = 1) at .1596 probability level for insignificant differences between the two groups' responses. Table E-21 of Appendix E presents this statistical test result.

Other reasons for considering them suitable were that there would continuously be available graduates from Nigerian colleges of

technology. Thus, NTTTP provided a means of encouraging recruits with technology education into teaching.

Item 8.4: Technology Field: Suitable for NTTTP

A high percentage of respondents, 81% for both groups, felt their fields of study were suitable for the NTTTP award. Table 34 Item 8.4 shows that 89% in UMAN and 69% at UNB indicated they felt that their technology fields were suitable, while 31% in UNB and 11% in UMAN did not appear to share that feeling.

There were three primary reasons provided by those who agreed their fields were suitable. These included their perceived impressions that Nigeria needed people in those fields which was stated by four respondents in UNB and one-half of the respondents in UMAN. Also, an increasing number felt these technology graduates had knowledge, and could pass that on to their students. Besides, a few felt, their fields of study were important in both academic and technical teaching. Those who disagreed felt their fields of study lacked the technical content for hands-on vocational teaching at the secondary school level. These areas of technology could only be suitable for tertiary (college) level teaching.

Item 8.5: Satisfaction With 24-Month Duration

There appeared to be differences as to whether respondents were satisfied with the 24-schedule for the B.Ed degree program. Over one-half (56%) in UMAN chose the "Yes" category while 62% in UNB chose the "No" category as shown in Item 8.5 of Table 34. A x^2 statistical test, with a value of 0.883 (df = 1) at .3473 probability level, did not

show significant differences between the responses of the two groups (Table E-22). Respondents who felt satisfied with the schedule cited time efficiency and adequacy for the B.Ed degree for their reasons. Some felt the duration was just enough, saving time, money and other resources. Those who chose the "No" category mainly felt there was pressure on students to complete, and there was no holidays for rest.

Item 8.6: Advantages and Disadvantages of the 24-Month Teacher Education

Overall, in both groups, advantages of the 24-month schedule cited included completion of B.Ed degree within a short time. This was mentioned by more than half of the total respondents. The second most cited advantage was learning to handle stress and pressure. Organization and planning for completion dates, an increasing number in both groups felt, were useful in building work ethics which would in future lead to high productivity. Also, the tight schedule enabled them to study throughout the year, be motivated together, and "stay out of trouble". The short duration, a large number perceived, maximized resource utilization, saving money to the Nigerian government in fees and interns' monthly living allowances.

Both groups of UMAN and UNB students saw some disadvantage with the 24-month duration. Expression of quality of degree-related concerns from the UNB, probably indicating they needed more time to complete what some referred to as essential components of the B.Ed degree program. The rest of the respondents saw the 24-month duration as too short felt academic quality and B.Ed standards were adversely affected. They mentioned lack of mastery of course content and low overall grade point

average for respondents could be a direct result of the short duration. There was little choice for interviewees at UMAN in selection of courses. Major program components like practice placements were either rushed or done at the wrong time as perceived by at UMAN, or missing completely, as those in UNB felt. The time schedule limited their opportunities for social and cultural interaction with the communities, travel or rest.

Item 8.7: Existing B.Ed Format Modification, Effectiveness and Suggestions re Modifications

There was common agreement among majority of respondents in the two groups that the B.Ed degree programs that existed were modified for NTTTP students in the two settings. Item 8.7 Table 35 shows that more than two-thirds of respondents in UMAN, and all but one in UNB, felt the programs were modified.

Ten respondents (63%) in UMAN and seven (54%) in UNB felt the modifications made the B.Ed program more to adequately effective. Interview responses indicated 38% and 46% in UMAN and UNB, respectively, felt the B.Ed programs were less effective. Responses also showed marginal common agreement to effectiveness of the B.Ed program due to the modifications that were affected.

To a greater number of those respondents who felt the B.Ed program were either more or adequately effective, the activities provided within the 24-month period seemed to be a factor. In UMAN the program was adequately effective because "they got the exposure to the world of work and student teaching practice (and) attended the same classes in general with other Canadian B.Ed program students". The modified program was

TABLE 35

FREQUENCY/PERCENTAGE OF RESPONSES TO THE EFFECTIVENESS OF THE MODIFICATIONS TO THE OCCUPATIONAL TEACHER EDUCATION FOR UMAN AND UNB GROUPS

	UMAN (N=18)			UNB (N=18)		
	More Effective	Adequately Effective	Less Effective	More Effective	Adequately Effective	Less Effective
	f/%	f/%	f/%	f/%	f/%	f/%
8.7 Effectiveness of the modifications due to the B.Ed. program	1/6.25	9/56.25	6/37.50	3/23.08	9/30.77	6/46.15

offered in less time by "squeezing in more courses without much loss of quality". Students were occupied at all times with the use of every available time for necessary activities. Courses useful to students were added for program students. Also, the summer professional courses enabled them to mix with and learned from the experience of practicing teachers.

In UNB the flexibility allowing program students to enhance their technical knowledge and interact with students in other faculties was often cited as the case for the adequacy of B.Ed program as a result of the modifications. In both situations, the maximization of resources was often mentioned. Also, "the modified courses in UNB brought in the home situations".

Resondents in both settings who felt the B.Ed program was less effective cited factors such as keeping program students separate where courses designed were not very appealing to Canadian students. Worse still, these courses were not related to Nigerian situations. This tended to limit their interaction with other program students. Also, specific to UNB, nearly all the program students interviewed felt the effectiveness of their teacher education program was adversely affected due to the lack of practice placements.

In both groups compulsory summer courses were mentioned. Major modifications effected on each B.Ed degree program appeared to have been different in the two settings. Poor student teaching timing was indicated by eight of eighteen respondents in UMAN. Less time for practice teaching was cited by five. Two mentioned the inclusion of work placement to compensate for actual work experience which Canadian

students were required to have as B.Ed requirements. In UNB, lack of student teaching and work placement internships were mentioned by nine of the thirteen respondents. Six commended the availability to them of the engineering electives which were normally not available to B.Ed program students. Only a few mentioned uncontrolled flexibility, while others appreciated the "home situations" reflected in the summer courses exclusively designed for them.

Item 8.8: Suggested Recommendations to Improve Program

Suggestions by more than two-thirds of the respondents in both groups touched primarily on program administration. Concern regarding program administration was followed by those on aspects of program curricula administration such as desired flexibility for students to take technical elective courses in their technology areas with some control on standards and quality of the B.Ed degree; the need for continuous evaluation and follow up studies, and making provisions for students' inputs in program decision making.

In some specific detail, a majority of respondents felt administrators should have provided guidelines for program implementation so that university adapts to sponsors' needs and remove constraints of local political and other policies and regulations. Next in order of perceived need was effective means of communication between CBIE and FME, and the universities as well as with students to remove doubts and have students' problems considered before they got out of control.

Item 8.9: Statements of Feelings About NTTTP

Statements made by respondents expressing their feelings about NTTTP as they knew it covered various aspects and factors of the program. These aspects included the nature of the program which a majority felt was a new, good and worthwhile concept to be encouraged and explored.

Over half the respondents felt the program was generally a success, the intentions good, and the central aim plausible. The concept of training technology diploma graduates to teach their technology areas was a well conceived idea. The only concerns, nearly one half of the students perceived, were that the shortcomings of the program implementation caused it not to meet students' needs, and to fall below expectations in providing graduates with adequate preparation to teach their technology areas effectively.

The products of NTTTP, a few respondents felt, could still improve technical teaching in Nigeria if they returned. These respondents felt the students who had worked hard to make the program seemed like a success, had developed the spirit and perhaps the motivation that would be useful for their work in future. About one third (eight) of the graduates, mostly at UNB, felt they were in better positions to teach at advanced tertiary, not secondary school levels.

Summary

Both B.Ed degree programs, a majority of the respondents perceived, could be adapted in Nigeria (94%), and graduates would recommend these programs to their states (87%) as revealed in the analysis in this section. It was also revealed that UMAN students (78%) felt, more so

than those at UNB (54%), that community college technology graduates were a suitable clientele for the NTTTP. Similarly, UMAN students (89%) felt their technology areas lent themselves more to secondary school teaching than the UNB group (69%). The analysis revealed that UNB respondents felt that their technology areas were more suited to post secondary teaching.

The B.Ed degree programs were modified in both settings, as was indicated in the analysis by 72% in UMAN and 92% in UNB. It was revealed that the inclusion of student teaching, industrial work placement, and summer courses with practice teaching constituted the major modifications. At UNB, the effective modification was curricular flexibility. The flexibility allowed Nigerian content to be included in program courses. It also enabled clientele to select technical elective courses from engineering fields.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Purpose of the Study

The major purpose of this study was to identify and describe the perceptions that Nigerian student teachers held of the Nigerian Technical Teacher Training Program (NTTTP) in the Faculty of Education of the University of Manitoba (UMAN) and of the University of New Brunswick (UNB).

Specific Objectives

Specifically, the four objectives that guided this investigation were:

1. To describe the NTTTP student teachers' characteristics with respect to selected demographic variables.

2. To determine the Nigerian students' perceptions with respect to the eight selected component areas of NTTTP implementation variables:

   (a) aspects of administration,

   (b) knowledge and skills,

   (c) industrial work experience,

   (d) student teaching experience,

   (e) program thrust and focus,

   (f) overseas training concerns,

   (g) professional goals, and

   (h) occupational teacher education.

3. To determine differences existing between the perception of UNB

and UMAN Nigerian student teachers as listed above in Objective 2.

4. To determine strengths and weaknesses of the NTTTP as perceived by UMAN and UNB students.

Research Methodology

The methodological technique used established a framework for the study which comprised a structural (evaluation) process-outcome approach, and a theoretical (perception) perspective. The design rationale described the situational factors; survey methodological (descriptive/comparative/evaluative), and data (quantitative and qualitative) triangulation techniques employed. Also provided was a rationale for population selection and sample identification.

Data Collection

Data was collected through personal, on-site interview with a 163-item, nine-part investigator-designed instrument. A nine-member panel of experts validated the instrument which was also pilot-tested with five previous NTTTP graduates. A combined response rate of 84.6 per cent was obtained (N = 31).

Data Analysis

Data collected from the interview was analysed in two ways according to the nature/type of information. Matrix categorization technique of univariate content analysis was used in analysing qualitative data to complement and explain the quantitative classifications established by frequency and percentage comparison and

to link inductively derived program processes to outcomes.

Summary of Findings

The findings presented in this section are summarized in relation to the four specific objectives established.

Objective 1

- To describe the NTTTP student teachers' characteristics with respect to selected demographic variables.

1. Over 95% of participants were found to be male.

2. More than three-quarters of the students participating in the NTTTP effort ranged in age from 25 - 29 years.

3. Students were almost equally distributed between Nigeria's geographical north (six states) with 14 students and south (seven states) with 16 students.

4. The majority of the students arrived in Canada in 1979.

5. Overall, almost three-quarters of the participants had a West African Secondary School Certificate (WASC) upon arrival in Canada.

6. Approximately 71% of NTTTP participants graduated in 1983 with a Community College Diploma.

7. Over two-thirds (72%) of the students at UMAN and over one-half (53%) at UNB did not possess any college industrial experience.

8. At the completion of their B.Ed degree an equal number of students expected to work in teaching (44%) as in business/industry (44%).

Objective 2

- To determine the Nigerian student teachers' perceptions with respect to the eight selected component areas of NTTTP:

  (a) aspects of administration,
  (b knowledge and skills,
  (c) industrial experience,
  (d) student teaching experience,
  (e) program thrust and focus,
  (f) overseas training concerns,
  (g) professional goals, and
  (h) occupational teacher education.

Administration

1. Approximately 50% of the students at UMAN and 69% at UNB disagreed that NTTTP goals and objectives for program implementation were made available to participants.

2. Over one-half (56%) of the students at UMAN and only 38% at UNB indicated receiving adequate advance credits for previous work done.

3. Accommodation and transportation were not perceived to constitute a serious problem for 78% (14) of UMAN and 23% (3) of UNB students.

4. One-half (50%) and less than one-third (31%) at UMAN and UNB respectively felt that program administrators did not make sufficient efforts to listen to and alleviate their concerns.

5. Guidance for program structuring and scheduling was perceived by both groups (UMAN, 67% and UNB, 77%) to be adequate.

6. Approximately 72% (13) of respondents at UMAN and 77% (10) at UNB felt that students' inputs were not adequately sought and valued.

7. Overall, participants felt that the contributions by their colleagues (90%), instructors in general (93%) and university officials

(87%) were very effective to effective.

8. At both institutions, slightly over one-half (51.6%) agreed that CBIE was very effective to effective.

9. The contributions of FME and NHC were perceived to be ineffective by approximately 84% and 77%, respectively, of the students at UMAN and UNB.

10. Respondents in both groups (97%) had good to fair relationships with university officials and colleagues.

11. University coordinators were perceived to have had good to fair relationships with participants by approximately 84% of the respondents.

12. Approximately 75% of the respondents at UMAN and 62% at UNB felt their relationship with both NHC and FME were poor.

Knowledge and Skills

1. Overall, approximately 97% (30) of respondents felt the B.Ed program enabled them to be more knowledgeable of the concerns of education in Canada and not that of Nigeria.

2. Two-thirds (67%) of the respondents at UMAN compared to under one-third (31%) at UNB felt that the B.Ed program prepared them adequately for vocational teaching in Nigeria.

3. Over three-quarters (78%) of respondents at UMAN and 62% at UNB agreed they would like to have courses dealing specifically with Nigerian education.

4. Overall, in both groups, 90% of the respondents felt that academic courses (minor/second teachable) and professional education courses were very useful and relevant for teaching in Nigeria.

5. Subject development and media courses were named as the most useful while Foundations of Education and Provincial School Laws and School Administration were cited by participants as the least useful.

6. Student teaching and industrial work placement were listed as the most transferable aspects of the B.Ed program at UMAN while the least transferable aspects cited were related to Canadian content in education and academic courses.

7. Science and technical electives were cited as the most transferable aspects of the UNB B.Ed. program while the least transferable were related similarly to Canadian content in courses.

Industrial Work Experience

1. Over three-quarters (77%) of the respondents at both institutions perceived industrial work placement as necessary in their training.

2. In both groups, 81% of the respondents did not perceive a change in future plans as a result of the industrial work experience compared to the NTTTP.

3. Majority of UMAN students felt industrial placement enabled them to acquire skills for working in industry (67%), appreciate working in industry (89%), and gain valuable experience not available in classroom (72%). The placement was further perceived to be enjoyable (67%), and useful (72%).

4. Approximately 44% of UMAN respondents felt the industrial work experience enabled them to become more confident teaching in their technology area while 50% felt it was relevant to their needs as

vocational teachers in Nigeria.

5. Over 77% of respondents in both groups felt there were policies or regulations that adversely affected the implementation of NTTTP as related to work experience.

6. Respondents indicated that the stronger features of the individual work experience were the practice work for UMAN, and exposure to the world of work for both groups.

Student Teaching Experience

1. Approximately 97% of all the respondents felt student teaching practice was necessary to the B.Ed degree program.

2. Future plans of respondents in both groups (UMAN, 72%; UNB, 85%) did not change as a result of the student teaching related experience.

3. Nearly all of the UMAN students indicated they were placed in public high or technical vocational schools; and taught mostly in their second teachable academic areas.

4. The student teaching experience enabled over 94% of the UMAN respondents to acquire confidence teaching, 100% to understand classroom teaching duties, and 83% to become aware of school procedures in the province.

5. For teaching in Nigeria, 61% of UMAN respondents would choose similar type of school where their placement occurred; 67% the class level, and 89% the courses they taught.

6. The timing of the student teaching experience component of the NTTTP at UMAN was perceived as inappropriate and the duration as too short while supervision, evaluation, and relevance of the student

teaching experience were perceived as satisfactory.

7. Approximately two-thirds of UMAN students perceived exposure to real classroom situation and opportunity for practice as the stronger features of student teaching, while preparation and delivery of lessons to peers were perceived by UNB participants.

8. Timing and short duration of UMAN students teaching was perceived to be a weaker feature of the student teaching experience while evaluation by peers and length of practice teaching were similarly perceived at UNB.

Program Thrust and Focus

1. Respondents opinions were approximately equally divided between agreement (35%) and disagreement (39%) with regards to experiences and skills being readily applied in industry than in the classroom.

2. Approximately 44% of UMAN students and 23% in UNB agreed that they had more confidence in teaching than for working in industry.

3. Approximately 61% (11) UMAN respondents and 38% (5) of UNB felt their technical areas lent themselves readily to teaching at the secondary school level in Nigeria.

4. Over 80% of NTTTP students in both groups agreed that they had occupational advantage as vocational teachers due to the dual focus of the industry/school B.Ed preparation.

5. Nearly two-thirds (8) of the respondents at UMAN felt their preparation was adequate for work in business/industry/labour (BIL) and for teaching.

6. At UMAN, all the respondents (18) and over two-thirds (13) felt their B.Ed preparation for teaching and for BIL respectively was

adequate.

Overseas Training Concerns

1. Over two-thirds of all respondents (68%) felt that studying as a group from one country was "very comfortable", did not limit their interaction with other campus students and it promoted unity among them (Nigerians).

2. Over three-quarters (77%) of respondents agreed that studying as a group from one country should be encouraged.

3. One-half (55%) of all respondents (31) disagreed that faculty members who understand their culture appeared to be able to structure learning experience relevant to their needs in Nigeria.

4. The availability of facilities in Nigeria, technological obsolescence, transfer and application of acquired skills and knowledge at home, and the problems of irrelevancy due to Canadian content in various courses were technological concerns most often cited.

5. About two-thirds of the students interviewed stated perceived technological needs to include lack of adequate laboratories, work shops and teaching aids, and the challenge of relating learning to Nigerian situations as well as remaining current in one's professional fields.

6. Apparent cultural concerns included application of theories and methods based on Canadian content to Nigerian settings and providing examples familiar to students in Nigeria.

Professional Goals

1. Over 94% of respondents at UMAN and 69% at UNB felt the B.Ed degree was very important to their long term professional goals.

2. Nearly all (97%) of the NTTTP respondents would prefer a degree in their technology areas to the B.Ed degree.

3. The two main reasons cited by respondents for accepting the NTTTP award were:

i) the need for a university degree, the type notwithstanding; and

ii) the convenience a scholarship provided when financial constraints limited their opportunity for further education.

4. Approximately, 90% of the respondents in the two groups felt they had fulfilled their objectives for accepting the NTTTP scholarships.

5. Both groups combined rated "further studies in technology area" as the most preferred option ($\bar{x}$ = 1.94) while "seek employment in Canada" was the least preferred option ($\bar{x}$ = 4.81) of their immediate plans upon B.Ed graduation.

6. Over 77% of the respondents indicated that the overall NTTTP experiences altered some of their initial occupational plans.

Occupational Teacher Education

1. Over 94% of respondents at both institutions felt the teacher education program could be adopted with modifications for technical teacher training in Nigeria.

2. A high percentage (87%) of all respondents indicated they would recommend the B.Ed program for their states.

3. Overall 80% of respondents felt their fields of study were suitable for the NTTTP award.

4. More than two-thirds of respondents in UMAN and all but one in UNB felt the B.Ed programs were modified.

Objective 3

- To determine differences existing between the perceptions of UNB and UMAN Nigerian student teachers as listed in Objective 2. Some areas where differences were revealed included:

Aspects of Administration

1. Fifty per cent of the students at UMAN compared to 8% only at UNB indicated the individual B.Ed program drawn up satisfied them.

2. Sixty-one per cent of the students at UMAN felt they had received adequate information to guide their program while 85% at UNB felt the opposite.

3. UMAN participants (56%) felt they had poor relationship with CBIE while about 85% at UNB indicated they had good to fair relationship.

Knowledge and Skills

1. Sixty-nine per cent of the students at UNB and only 22% at UMAN felt the B.Ed program enabled them to be more knowledgeable of the concerns of education in Nigeria.

2. Approximately 39% of the respondents at UMAN and 62% at UNB agreed that instructors permitted assigned projects to reflect Nigerian content.

3. Significant differences were found to occur with respect to the perceived relevance and usefulness of both technical electives and English language courses for teaching in Nigeria with UMAN disagreeing and UNB agreeing.

Industrial Work Experience

1. Approximately 72% of respondents at UMAN and only 23% at UNB agreed that they met the objectives of the related work component of NTTTP.

2. Only 11% at UMAN and over two-thirds (69%) at UNB felt a different industry work-related experiences would have been preferred.

3. More than 94% (17) of UMAN respondents indicated they were placed in industry while 92% (12) participants at UNB said they were not placed in industries.

Student Teaching Experience

1. Approximately 94% of UMAN and only 15% of UNB students felt they met the objectives for the student teaching component of NTTTP through the experience they had.

2. A different student teaching - related experiences would have been preferred by 85% of UNB students and by only 17% of UMAN.

3. Nearly three-quarters (72%) of UMAN respondents indicated that no policies adversely affected the implementation of the student teaching component while 92% of UNB respondents felt such policies and regulations were present.

Program Thrust and Focus

1. While over one-half, 56%, of respondents at UMAN disagreed that the skills and knowledge gained in the B.Ed program were equally applicable in school as in industry about 54% agreed in UNB.

Occupational Teacher Education

1. UMAN (56%) felt they were satisfied with the 24-month B.Ed program schedule while 62% at UNB felt they were not.

Objective 4

- To determine strengths and weaknesses of the NTTTP as perceived by UMAN and UNB student teachers.

The following are the major perceived strengths and weaknesses of NTTTP revealed by the findings of this study in the areas of:

Administration

1. University resources for program implementation were perceived to be very adequate by both groups of students.

2. Lack of direct involvement in NTTTP implementation, and ineffective communication with students by the Nigerian Federal Ministry of Education and Nigerian High Commission in Canada were perceived by student participants.

3. Over 72% of the student participants in both groups felt students inputs in decision making regarding program implementation were neither sought nor valued.

Knowledge and Skills

1. Over 90% of the students in both groups perceived academic courses (minor/second teachable) and professional education courses to be very useful and relevant for teaching in Nigeria.

2. Over 90% of UNB students felt technical electives and English Language courses were useful and relevant to teaching in Nigeria.

3. Over one-half of the students at UMAN felt both technical electives and English Language courses were not very useful and relevant.

Industry Work Experience

1. The stronger features of the industry work placement at UNB cited were:

(a) the practice,

(b) exposure to the world of work and related technology field, and

(c) working with and getting to know people.

2. In UNB exposure to industry through visits and observations was mentioned by more than one-half of the students as the stronger features of their industry-related experience.

3. Lack of payments or renumeration to UMAN student participants were cited as the primary weakness of the work-related experiences.

4. Lack of formal industry placement, briefness of the industry visits, and the unrelatedness of some of the industries visited were mentioned by UNB as weaknesses of the experience.

Student Teaching Experience

1. The stronger features of the student teaching experience cited by UMAN students were the exposure to real classroom situation and the opportunity for student teaching practice.

2. The opportunity to microteach, practice teaching before their peers, and preparation of lesson plans were the stronger features cited by UNB respondents.

3. The weaker features of the student teaching placement at UMAN

were the poor timing and short duration.

4. At UNB, the lack of formal classroom placement for practice teaching and evaluation by peers were considered as weaker features and the practice (peer teaching) was not long enough to cause desired impacts.

Program Thrust and Focus

1. Over two-thirds of the respondents at UMAN felt the preparation for business/industry/labour (BIL) was adequate.

2. Over one-half of the respondents at UNB felt the preparation for business/industry/labour was adequate.

3. All the UMAN participants felt the NTTTP prepared them adequately for teaching in the classroom.

4. Over one-half of the UNB participants felt the NTTTP prepared them adequately for teaching in the classroom.

Occupational Teacher Education

1. Approximately 56% of UMAN respondents indicated that they were satisfied with the 24-month schedule for the B.Ed program due primarily to resource efficiency.

2. About 62% of respondents at UNB felt they were not satisfied with the 24-month schedule, with 23% stating the period was too long for the B.Ed preparation while 39% cited stress due to the intensity.

3. In the combined UMAN/UNB groups 62% reported that the intensive 24-month B.Ed teacher training program was satisfactory and enabled them to complete the B.Ed degree within a short time.

Conclusions

From the analysis of data and findings of this study it could be concluded in part that:

1. NTTTP students strongly supported the need for availability of program implementation guidelines and the direct involvement of Nigerian Federal Ministry of Education, Nigerian High Commission and when feasible Nigerian Universities, in overseas program implementation.

2. There was a high concensus for a need to involve student participants in program decision making and for a more effective selection of potential program student participants.

3. There was dissatisfaction among UNB participants with regards to the adequacy of advance credits awarded for previous work completed prior to NTTTP registration.

4. There was consensus concerning the need for Nigerian related courses which could provide a basis for students to link Canadian training to Nigerian situations.

5. While there was agreement that the UMAN B.Ed program prepared participants relatively more adequately for vocational teaching in secondary school, UNB program prepared them more for post-secondary teaching or training in industry.

6. Though a large number of students indicated that their initial occupational plans had changed due to the overall NTTTP preparation, a substantial number of the respondents felt the change was due to neither student teaching nor industry work experiences.

7. While no significant difference was obtained in the percentages of graduates who opted for classroom teaching, students at UMAN tended

to report a greater inclination towards secondary school teaching.

8. Though a substantial number of NTTTP students indicated that they felt the 24-month B.Ed degree program was resource-efficient and satisfactory a sizeable number of the respondents indicated that it was too intensive and stressful.

9. Evidence showed a vital need for industry work and student teaching (school internship) placements for B.Ed preparation, and also indicated that a number of policies, regulations, and factors adversely affected their implementation in various ways.

10. Although all the students interviewed indicated that they achieved the objectives for which they accepted the NTTTP award, only a minority would accept teaching as a career, or be available for teaching on graduation from NTTTP; a greater number plan to further studies primarily in technology areas or work in industries.

11. Though a substantial number of respondents felt the B.Ed (vocational) degree was important to their long term professional goals and that they had occupational advantage as vocational teachers due to its dual focus, almost all respondents indicated a preference for a degree in their technology areas.

12. General agreement among respondents indicated that with appropriate modifications, the B.Ed degree programs in both universities were suitable for accelerated vocational teacher preparation in Nigeria.

13. It was revealed that community college graduates were a suitable clientele for the B.Ed degree teacher education program and that the judgements of these student participants on the adequacy of

NTTTP preparation for vocational teaching in Nigeria were based, at the time, on limited previous experience or training in teacher education in Nigerian context.

Recommendations

Based on the analysis and interpretation of data from the study of the Nigerian student teachers perceptions of the Nigerian technical teacher training program (NTTTP) in the two participating Canadian universities, the following series of recommendations are provided. It is proposed in respect of:

NTTTP Improvement

1. That more effective screening of applicants for overseas training program be carried out to maximize the potential for attainment of intended purpose of the program.

2. That more effective communication and closer relationships be established with the students in the process of program implementation by the sponsor's agents, Nigerian Federal Ministry of Education and the Nigeria High Commission in Canada, and by the program administrator, the Canadian Bureau for International Education.

3. That a designated coordinator be appointed and identified to the students at each university to coordinate the programs activities and related information dissemination.

4. That there be direct and active involvement of Nigerian Federal Ministry of Education and Nigeria High Commission or any other designated Nigerian government representative in program planning and implementation.

5. That inputs from students as adults be sought and incorporated in program planning and implementation.

6. That equivalent of thirty (30) credit hours of minimum advance standing be awarded for previous work completed at the community college and for appropriate work experience as well as discourage extra academic load in addition to that required for B.Ed degree graduation.

7. That there be less Canadian culture-based content in theory courses, and more emphasis be given to Education Methods courses while making opportunity available to incorporate Nigerian related courses to participants during training overseas.

8. That, in implementing the B.Ed degree program there should be a reduction of work placement and technology electives to increase the components of student teaching and second teachable academic area.

9. That independent directed studies focusing on the concerns of transfer and application in Nigeria of related technological knowledge acquired in Canada be made available to participating students as part of their B.Ed degree curriculum.

10. That opportunities be made available for participants to undertake during training short term practice placement or experiences in Nigeria so as to have contacts with home conditions and families. Alternatively, on return, orientation or supervised internships be provided prior to formal teaching appointment.

11. That opportunities be made available for Nigerian university education professors to be involved in planning and implementation of international education programs.

12. That given the administrative concerns revealed in this study,

and that international technical education continue to constitute an important part of Nigerian education system, the Federal government of Nigeria should train a suitable cadre of officers within the various ministries of education and the universities specially for the management of international education programs.

Further Studies

1. That a follow-up study of NTTTP students currently studying in graduate programs in Canada should be conducted to determine the current participants' perceptions of the Canadian teacher preparation.

2. That, to build a body of available data in international contracted education, this study be replicated with:

i) other foreign students participating in similar programs in Canada, and

ii) NTTTP students in the United States of America.

3. That in Canada, in order to increase the relevance of their studies abroad for developing nations' students, a study be carried out which examines the feasibility of a university-based flexible curricula allowing the inclusion of foreign students home information and permitting limited specialization in technology areas when designing foreign students' education curricula.

4. That studies be carried out to determine suitable guidelines for placement of foreign students in Canadian work settings and institutions so as to maximize learning experiences and benefits to both interns and employers.

5. That follow-up and comparative studies of NTTTP graduates at work in Nigeria be done so as to assess the effectiveness of the

Canadian teacher preparation.

6. That exploratory studies be carried out to determine the feasibility of and derive principles for the involvement of Nigerian universities in planning and implementing international education programs.

7. That, given the acute need of vocational teachers in Nigeria and the production level of Nigerian technology colleges, feasibility studies be conducted regarding the recruitment of Nigerian technology college graduates with Ordinary National Diploma (OND) for accelerated bi-foci teacher education within 24-months employing modified B.Ed degree program formats of the NTTTP.

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Appendix A

This appendix contains a sample correspondence regarding information for the study. The sample is a later correspondence. Earlier correspondence of similar nature were written to different related agencies which included Nigerian Federal Ministry of Education in Lagos, the Canadian Bureau for International Education (Ottawa), and the Nigerian High Commissions or Embassies in Ottawa, Canada; London, England and New York, USA.

THE UNIVERSITY OF MANITOBA

FACULTY OF EDUCATION
Department of Curriculum:
Mathematics and Natural Sciences

Winnipeg, Manitoba
Canada R3T 2N2
(204) 474-8215

Wendy Morton
Program Administrator
Canadian Bureau for
International Education
141 Laurier St. West
OTTAWA, Ontario
K1P 5J3

Dear Wendy:

RE: NTTTP Evaluation - Information re Stated Program Goals

Thank you immensely for your cooperation in supplying needed information requested so far.

I have not been able to find the stated goals or objectives of the Nigerian Technical Teacher Training Program (NTTTP) in any of the documents from your office and other sources reviewed so far. Goals and objectives of the program provide the basis for this study which attempts to assess the strengths and weaknesses of the present NTTTP implementation for future program improvement.

My attempt to come by this information during my visit to Ottawa failed because the director, Floyd Tuzo, was too busy to grant my scheduled interview. All efforts I made to reschedule another interview with him failed during my week's stay in Ottawa. And, Roger Charles, who attended to me in his place, would not provide this information.

The information here is that which guided CBIE/FME to select the two universities and their particular B.Ed. programs. It is hoped that such information will be contained in the CBIE/FME contract guidelines or in their earlier correspondence prior to April 1982 when the program was approved.

As usual, I count on your usual cooperation to get this information as soon as possible.

Yours sincerely,

B. N. Ezuk.

Appendix B

Appendix B is a format of the University of Manitoba B.Ed degree program approach which was utilized for the Nigerian Technical Teacher Training Program implementation. Required credit hours of work for B.Ed graduation are specified for each section and/or course.

TABLE I

ALTERNATIVE VOCATIONAL TEACHER EDUCATION PROGRAM (AVTEP)

CREDIT HOURS REQUIRED BY RED RIVER COMMUNITY COLLEGE

30	33	
30 credit hours transferred from approved two year technical training completed at other Institution.	B22-E204 Educational Testing and Evaluation	3
	B22-E206 Educational Psychology	3
	B23-E103 Audio Visual Education	3
	B23-E201 Organizing Industrial Education Facilities	3
	B23-E202 Principles of Industrial Education	3
	B23-E203 Course Development in Industrial Education	3
	B24-T030 Related Technical and School Experience Program	9
	B23-E105 General Teaching Methods I	3
	B23-E205 General Teaching Methods II	3
	B23-E301 Independent Study	(3)
	B23-E302 Independent Study	(3)
	(Optional - by arrangement)	

TABLE II

ALTERNATIVE VOCATIONAL TEACHER EDUCATION PROGRAM (AVTE)

CREDIT HOURS REQUIRED BY UNIVERSITY OF MANITOBA
FACULTY OF EDUCATION

63

116.101	Social Foundations of Education	3
116.301	School Organization	3
4.091	English Composition	3
Vocational Education (6 credits) (select two 1/2 courses from list)		3
81.205	Planning and Management	3
81.208	Problems and Trends	3
81.217	Business and Industrial Enterprises	3
81.309	Principles and Methods of Cooperative Work Education	3
One courses for the second teaching area		6
Vocational Education (12 credits) (select appropriate block)		
Health Occupation Block		
81.211	Health Education	3
81.399	Independent Problem	3
81.209	Outdoor Education	3
	Elect Educational Course	3
Trade & Technical Block		
81.310	Technical Elective	3
81.311	Technical Elective	3
81.312	Technical Elective	3
81.313	Technical Elective	3
Related Occupations Block (commercial art, food services, cosmetology)		
81.399	Independent Problem	3
81.405	Media Production	3
	Elect Education Courses	6

63202	Communications	3
43.304	General Learning Disabilities	3

Vocational Education (6 credits)

81.4XX	Laboratory Methods for Students with Special Needs	3
81.3XY	Supervision of Vocational Education	3

Academic course for second teaching area 12

Elect either one additional academic course in second teachable or one methods course in the second teachable area 6

Possible areas for second teachable subjects:

Art
German
Music
French
History
English
Agriculture
Life Sciences
Ukrainian
Spanish
Sciences
Mathematics
Theatre
Geography
Computer Science

Appendix C

The University of New Brunswick specially designed individually structured NTTTP (B.Ed) program format utilized for implementation of the Nigerian Technical Teacher Training Program is included. The format as shown served to guide the advisor and students on structuring the B.Ed degree program experiences.

TABLE III

PROGRAM FORMAT
B.ED INDUSTRIAL VOCATIONAL PATTERN

STUDENT_____ Student No. _____

FACULTY ADVISOR _____

		COMPLETED		
A.	Arts/Science (30-36 cr. hrs.)	Session	Date	Credit
	1 Math or approved Alternative (6 cr. hrs.)			
	_____	_____	_____	_____
	_____	_____	_____	_____
	1 Science or approved alternative (6 cr. hrs.)			
	_____	_____	_____	_____
	_____	_____	_____	_____
	Plus 18-24 cr. hrs.			
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
B.	Education (48 to 54 cr. hrs.)			
	EDUC 1003-Orientation to Teaching	_____	_____	_____
	1004-Introduction to Teaching	_____	_____	_____
	2004-Child Development	_____	_____	_____
	2005-Applied Learning & Assessment	_____	_____	_____
	3004-Social, Philosophical & Historical Foundations	_____	_____	_____
	3005-Admin. & Legal Foundations	_____	_____	_____
	EDCI 1214-Communications	_____	_____	_____
	1215-Communications	_____	_____	_____
	EDVO 3975-Teaching Industrial Education	_____	_____	_____
	EDVO 4977-Curriculum Dev. in Industrial Education	_____	_____	_____
	EDVO 4980-Industrial Vocation Practicum	_____	_____	_____
	Plus 2 others in Vocational Education (12 cr. hrs.)			

C. Technical Specialty (VPTO 30 cr. hrs.)
Trade Competency

Technical Options			
	TOTAL		138

NOTE: The difference between the number of credit hours allowed in the trade competency and work experience area and the maximum credits allowed for the technical specialty must be made up with technical option courses.

Appendix D

This appendix contains the complete data collection instrument. It includes a cover letter for the instrument. The instrument was developed by the investigator through exploratory interviews with six program officials and four former program students (NTTTP graduates), then in this M.Ed program in the University of Manitoba and through review of program documents and professional literature.

Dear Nigerian colleague:

My name is Boniface N. Etuk. Like all of you, I went through the Nigerian Technical Teacher Training Program (NTTTP). I believe that as participants, we all have concerns about and suggestions for the improvement of this program to meet the training needs of student teachers. Such improvements will increase the direct benefits to future program student teachers as individuals and as a group and increase understanding about program partners. By taking part in the survey you are contributing largely to make this study a success. The study is designed to collect and analyze student teachers' perceptions of the B.Ed program in your settings in effort to improve the effectiveness of future NTTTP offerings.

This survey WILL NOT IDENTIFY THE QUESTIONNAIRE BY STUDENTS NAME OR NUMBER.

To obtain as much information as possible from the analysis of the views given in the questionnaire, I will relate your opinions to your situations and to your field of study. Therefore, I would be grateful should you provide the information requested in this survey interview on your background, your training, and experiences of the NTTTP in your setting. The survey is a structured personal interview between you and the investigator at your convenient time.

YOU ARE FREE TO WITHDRAW FROM THE STUDY AT ANY TIME.

The interview takes about one hour, depending on your interest and interaction. I will make the results of this survey available to all of you who are interested. In that respect, you can contact me by:

1) Phone: (204) 774-0602 (Home) or (204) 474-8215 (Office)
2) Address: P.O. Box 2741, Winnipeg, Manitoba R3C 4B3
   OR
3) Leave your phone number _____
   OR
4) Your name and address (in Canada or Nigeria) _____

_____

Thank you
Your colleague

B.N. Etuk

INTERVIEW SCHEDULE FORM

You will be available for the interview at about _____ am/pm on _____ and I will phone to confirm this time and date.

Your name is _____ (either first or last name). I can contact you by:

Phone: _____

Address: _____

UMAN # _____

UNB # _____

INSTRUCTIONS FOR STRUCTURED INTERVIEW

INSTRUCTIONS:

A list of statements related to your background and experiences in the Nigeria Technical Teacher Training Program (NTTTP) in Canada is included in this questionnaire. Please respond to all statements as honestly as possible. Your opinions will be a valuable contribution to this study.

You have this questionnaire with you for reference. I will read each statement. Please tell me which of the possible responses you feel best represents your opinion. The scale enables you to indicate how much you agree with the statement. Scale ranges from STRONGLY AGREE (SA) to STRONGLY DISAGREE (SD), as follows:

SA = STRONGLY AGREE
A = AGREE
U = UNDECIDED
D = DISAGREE
SD = STRONGLY DISAGREE

SECTION 1: ADMINISTRATION

This section on program administration gives you the opportunity to react to the adequacy of the administrative provisions during NTTTP implementation.

	STATEMENT	AGREEMENT
1.1	NTTTP goals and objectives for program implementation were made available to all participants.	SA A U D SD
1.2	You received adequate advance credits for previous work done.	SA A U D SD
1.3	The B.Ed. program drawn up for you satisfied your perceptions of NTTTP for vocational teacher education.	SA A U D SD
1.4	When program experiences were provided in more than one setting, you had no serious problem with your accommodation and transportation.	SA A U D SD
1.5	Program administrators made sufficient effort to listen to and alleviate student's program concerns.	SA A U D SD
1.6	Adequate guidance was available to guide you in program structuring/scheduling.	SA A U D SD
1.7	In decision making regarding program implementation:	
	- Students' inputs were adequately sought.	SA A U D SD
	- Students' inputs were valued.	SA A U D SD

1.8 Specify the number of credit hours you received for previous work done. _____

1.8.1 Did you have adequate information to guide your program? Yes ___ No ___

1.8.2 If you answered "No", what additional information did you need?

_____

_____

_____

1.8.3 Who, in your opinion, was in a position to make that information available?

_____

_____

1.9 Evaluate the contributions (effectiveness/ineffectiveness) of each of these agencies in attaining the program's goals and objectives.

	Very Effective	Effective	Ineffective
1.9.1 Your colleagues	____	____	____
1.9.2 Instructors in general	____	____	____
1.9.3 University officials	____	____	____
1.9.4 CBIE	____	____	____
1.9.5 Nigerian High Commission	____	____	____
1.9.6 Nigerian Federal Ministry of Education	____	____	____
1.9.7 Other agents (specify) _____	____	____	____

1.10 Assess program-student relationships with the following program participants (good/poor).

	Good	Fair	Poor
1.10.1 Your colleagues	____	____	____
1.10.2 Instructors in general	____	____	____
1.10.3 University (college) coordinators	____	____	____
1.10.4 CBIE officials	____	____	____
1.10.5 Nigerian High Commission	____	____	____
1.10.6 FME officials	____	____	____
1.10.7 Other related agents _____	____	____	____

1.11 Comments/suggestions on the issues of concerns to you with respect to the administration of this program.

_____

_____

_____

_____

SECTION 2: KNOWLEDGE AND SKILLS

This section examines how you perceive the relevance of the program's academic content and professional skills to your situation.

STATEMENT — AGREEMENT

2.1 The B.Ed. program provided academic knowledge that:

2.1.1 - enables you to be more knowledgeable of the concerns of education in Canada SA A U D SD

2.1.2 - enables you to be more knowledgeable of the concerns of education in Nigeria SA A U D SD

2.1.3 - prepares you adequately for vocational teaching in Nigeria SA A U D SD

2.2 During your training you would have liked to have courses that dealt specifically with Nigerian education. SA A U D SD

2.3 Instructors permitted assigned projects to reflect Nigerian content if students so desired. SA A U D SD

2.4 During your training, courses in the following areas were very useful and relevant for teaching in Nigeria:

2.4.1 - academic courses (minor/second teachable) SA A U D SD
2.4.2 - professional (education courses) SA A U D SD
2.4.3 - technical electives SA A U D SD
2.4.4 - English language SA A U D SD
2.4.5 - other (specify) _____ SA A U D SD

2.5 Give the names of the two courses in your B.Ed. program which were the most useful for teaching in Nigeria.

2.5.1 _____
2.5.2 _____

2.6 Give the names of the two courses in your B.Ed. program which were the least useful for teaching in Nigeria.

2.6.1 _____
2.6.2 _____

2.7 List the aspects of your B.Ed. program experiences.

2.7.1 Most transferable to Nigerian work situation:

_____
_____

2.7.2 Least transferable to Nigerian work situation:

_____
_____

2.8 Additional comments on the relevance of the program's academic knowledge and related skills to your work situation in Nigeria.

_____
_____
_____

SECTION 3: INDUSTRIAL WORK EXPERIENCE

This section solicits your views with regard to work experience which you may or may not have been placed in the industry or had in-class related experiences.

STATEMENT — AGREEMENT

3.1 Industrial work placement (internship) for practical experience was necessary for your B.Ed. program. SA A U D SD

3.1.1 What are your reasons? _____

_____

_____

3.1.2 Describe what you did for industry related experience component of NTTIP.

_____

_____

_____

3.2 You met the objectives for the related work component of NTTIP by the activities of this experience. Yes ___ No ___

3.3 Your future plans have changed as a result of this industry-related work experience. Yes ___ No ___

3.3.1 State your reasons. _____

_____

_____

3.4 A different experience other than what you did would have been preferable in your situation. SA A U D SD

3.4.1 Why? _____

_____

3.5 Were you placed in industry for work experience? ___ Yes ___ No

3.5.1 Specify the industry you were placed _____

_____

£ £
£ RESPOND TO THE FOLLOWING ITEMS £
£ ONLY IF YOU WERE PLACED IN INDUSTRY £
£ £

3.6 The industrial practical experience enabled you to:

3.6.1 - acquire skills for working in industry SA A U D SD
3.6.2 - become more confident teaching in your technology area SA A U D SD
3.6.3 - appreciate working in industry SA A U D SD
3.6.4 - gain valuable experience not available in the classroom SA A U D SD

3.7 The industrial experience was:

3.7.1	- enjoyable	SA A U D SD
3.7.2	- useful	SA A U D SD
3.7.3	- relevant to your needs as a vocational teacher in Nigeria	SA A U D SD

3.9 What are your opinions regarding industry-related work experience component of the NTTIP in terms of:

Timing _____
Duration _____
Supervision _____
Evaluation Method _____
Relevance to Vocational Teaching in Nigeria _____
Others (specify) _____

£ £
£ FOR ALL RESPONDENTS £
£ £

3.10 Were there any policies or regulations that adversely affected the implementation of NTTIP as relates to industrial experience? Yes ____ No ____

3.10.1 If your response is "yes", enumerate and comment on three such policies and regulatory factors.

Factors	Comment
_____	_____
_____	_____
_____	_____
_____	_____

3.11 On reflection, what aspects of the industry-related experience were the:

3.11.1 Stronger features _____

3.11.2 Weaker features _____

SECTION 4: STUDENT TEACHING EXPERIENCE (SCHOOL INTERNSHIP)

In this section you will give your views with respect to the student teaching experience of the NTTIP as obtained in your University which you may or may not have been placed in school setting for teaching.

4.1 Student teaching practice was necessary for this B.Ed. teacher program. Yes ___ No ___

4.1.1 What are your reasons? _____

4.2 You met the objectives for the student teaching component of NITTP through this experience you had. Yes ___ No ___

4.2.1 How? _____

_____

_____

4.3 Your future plans have changed as a result of this experience. Yes ___ No ___

4.3.1 Give reasons for your response. _____

_____

_____

4.4 A different experience would have been preferable in your situation. Yes ___ No ___

4.4.1 Why? _____

_____

_____

4.5 Did you have an opportunity for supervised student teaching practice? Yes ___ No ___

4.6 If your answer is yes, specify the school level you student taught. _____

£ £
£ RESPOND TO THE FOLLOWING ITEMS £
£ ONLY IF YOU STUDENT-TAUGHT IN SCHOOL £
£ £

STATEMENT		AGREEMENT
4.6	The student teaching experience enabled you to:	
4.6.1	- acquire confidence for teaching in a classroom	SA A U D SD
4.6.2	- understand duties of classroom teacher	SA A U D SD
4.6.3	- become aware of school procedures in the province	SA A U D SD
4.6.4	- improve your teaching skills	SA A U D SD
4.6.5	- understand teaching demands more than previously	SA A U D SD
4.7	The teaching experience was:	
4.7.1	- enjoyable	SA A U D SD
4.7.2	- useful	SA A U D SD
4.8	For teaching in Nigeria, you would like to choose a similar:	
4.8.1	- type of school (Vocational/Academic High School or College)	SA A U D SD
4.8.2	- class level	SA A U D SD
4.8.3	- course you taught	SA A U D SD

4.9 What are your views regarding student teaching experience component of the NITTP in terms of:

4.9.1 Timing _____

4.9.2 Duration _____

4.9.3 Supervision _____

4.9.4 Evaluation _____

4.9.5 Relevance to your needs _____

4.9.6 Others (specify) _____

£ £
£ FOR ALL RESPONDENTS £
£ £

4.10 Were there any policies or regulations that affected the implementation of the student teaching component of NTTIP. Yes ___ No ___

4.10.1 If you answered "yes", enumerate and comment on three main policies or regulatory factors.

Factor	Comment
_____	_____
_____	_____
_____	_____

4.12 What did you do for the student teaching experience component of the NTTIP?

_____

_____

_____

4.13 On reflection, state the aspects of your student teaching related activities which were the:

(a) Stronger features _____

_____

(b) Weaker features _____

_____

SECTION 5: PROGRAM THRUST AND FOCUS

This section requests your views on the thrust and focus (to work in industry or teaching) of your university education in Canada in relation to your potential work situation.

STATEMENT	AGREEMENT
5.1 Your experiences and skills are now more readily applied in industry than in the classroom.	SA A U D SD

Comment on your rating _____

_____

_____

5.2 You have more confidence now in teaching than working in industry.	SA A U D SD

Comment on your rating _____

_____

_____

5.3 Your technology area lends itself readily to teaching at secondary school level in Nigeria. SA A U D SD

Comment on your rating _____

_____

_____

5.4 The skills and knowledge gained in the B.Ed. program are equally applicable in school as in industry. SA A U D SD

5.5 As a vocational teacher, does the focus (to industry or teaching) in your B.Ed. program provide you an occupational advantage in Nigeria? Yes ___ No ___

Give reasons. _____

_____

_____

5.6 Comment on how adequately the NITTP prepares you for work in:

5.6.1 Industry/business/labour _____

_____

5.6.2 Teaching in classroom _____

_____

SECTION 6: OVERSEAS TRAINING CONCERNS

This section solicits your views on the concerns of international education as it pertains to contracted technical teacher education.

_____

STATEMENT	AGREEMENT
6.1 Studying as a group from one country:	
6.1.1 - was very comfortable	SA A U D SD
6.1.2 - limited your interaction with other students	SA A U D SD
6.1.3 - promoted unity among you	SA A U D SD
6.1.4 - should be encouraged	SA A U D SD
6.2 Faculty members who understand your culture appeared to be able to structure learning experiences that have direct relevance to your needs in Nigeria.	SA A U D SD

6.3 List three of your greatest concerns regarding problems in overseas technical education and note how they can be alleviated.

Concern	Means of Alleviation
_____	_____
_____	_____
_____	_____

6.4 What are your major self-perceived needs as they relate to your overseas teacher training in terms of transfer of skills and knowledge.

_____

_____

_____

SECTION 7: PROFESSIONAL GOALS

This section requests your views on your professional goals as they may have been affected by the NTTIP experiences.

_____

STATEMENT		AGREEMENT
7.1	The B.Ed. degree obtained through this program is very important to your long term professional goals.	SA A U D SD
7.2	Given the option, you would prefer a degree in your technology area to the B.Ed.	Yes ___ No ___

Why? _____

_____

_____

7.3 What was your main reason for accepting the NTTIP award?

_____

_____

_____

7.3.1 Have you fulfilled that objective? Yes ___ No ___

7.4 Upon completion of this program (B.Ed. graduation) you plan to:
(Rate the options from 1 - most preferred to 5 - least preferred)

___ Seek employment in Nigeria
___ Seek employment in Canada
___ Further studies in Technology area
___ Further studies in Education
___ Further studies in another field

7.5 Has NTTIP experiences altered any of your initial occupational plans? Yes ___ No ___

Elaborate on your response. _____

_____

_____

_____

SECTION 8: OCCUPATIONAL TEACHER EDUCATION

This section seeks your views on the occupational (vocational/industrial) teacher education (B.Ed.) program in your setting.

8.1 This teacher education program can be adopted with modification to accelerate the production of technical teachers in Nigeria. Yes ___ No ___

Reasons: _____

8.2 You would recommend this B.Ed. program for your state. Yes ___ No ___

What are your reasons? _____

Suggested modifications you would consider: _____

8.3 Is recruitment of community college graduates with a diploma a good concept for this vocational teacher education program? Yes ___ No ___

State your reasons. _____

8.4 Your field of study is suitable for the NTTIP award which was focused on training for vocational technical teaching. Yes ___ No ___

Give reasons. _____

8.5 Are you satisfied with the 24-month schedule for this B.Ed. program? Yes ___ No ___

Why? _____

8.6 What advantages and disadvantages do you see in this 24-month teacher education?

Advantages	Disadvantages

8.7 Was the B.Ed. program modified for NTTIP student teachers in your setting? Yes ___ No ___

The modification made the B.Ed. program:

_____ more effective _____ adequately effective _____ less effective

How? _____

_____

_____

What were these modifications? _____

_____

_____

Make comments regarding these modifications. _____

_____

_____

_____

8.8 Suggest recommendations to improve the program: _____

_____

_____

8.9 Make a statement in one paragraph expressing your feelings about the NTTIP In Canada, as you know it.

_____

_____

_____

SECTION 9: STUDENT CHARACTERISTICS

11 1/4

9.1 Occupation expected after B.Ed. graduation _____

9.2 Occupation after graduation from community college in Canada

_____ Duration _____

9.3 Occupation before coming to Canada _____ Duration _____

9.4 College industrial experience (specify industry) _____

9.5 Canadian college/university qualification attained _____

(before NTTIP registration) Year _____

9.6 Canadian college/university from which you graduated _____

9.7 Academic qualification upon arrival in Canada _____

9.8 Year of arrival in Canada _____

9.9 Field of study in B.Ed. program: Major _____

Second teachable/minor (if any) _____

9.10 State (of origin in Nigeria) _____

9.11 Age range (in years): __20-24 __25-29 __30-34 __35-39 __40 and up

9.12 Sex: Male _____ Female _____

£ £

£ THANK YOU FOR YOUR TIME AND COOPERATION! £

£ £

11

Appendix E

This is a six-part appendix (E.01 - E.06) containing chi-square (x^2) results and applicable univariate information for some selected items where differences (not necessarily statistical) secured between the two groups of respondents. Appendix E.01 contains data from 'Aspects of Administration', E.02 on 'Knowledge and Skills', E.03 'Industrial Work Experience' and E.04 'Student Teaching Experience'. The other two parts are E.05, containing data relating to Program Thrust and Focus, and E.06, on Occupational Teacher Education.

Appendix

E.01

Aspects of Administration

TABLE 1

X^2 TEST OF AGREEMENT TO PERCEIVED AVAILABILITY OF NTTTP GOALS AND OBJECTIVES TO ALL PROGRAM PARTICIPANTS.

GROUPS	S/A/A	U	D/SD
UMAN	44.44	5.56	50.00
UNB	15.38	15.38	69.23

X^2 (2, N = 31) = 3.210, p <= 0.2008

TABLE 2

X^2 TEST OF RECEIPT OF ADEQUATE ADVANCE CREDITS FOR PREVIOUS WORK DONE.

GROUPS	S/A/A	U	D/SD
UMAN	55.56	11.11	33.33
UNB	38.46	38.46	15.38

X^2 (2, N = 31) = 0.883, p <= 0.6411

Specify the number of credit hours you received for previous work done.

01 - 30 Credit hours.

01 - 21 Credit hours.

02 - Nil.
03 - One year.
04 - One year.
05 - 9+30 Credit hours
06 - One year.
07 - One year.
08 - 3 Credit hours.
09 - One year.
10 - One year.
11 - 30 Credit hours.
12 - One year.
13 - 30 Credit hours.
14 - 30 Credit hours.
15 - Nil.
16 - One year.
17 - One year.

02 - 21 Credit hours.
03 - 21 Credit hours.
04 - 21 Credit hours.
05 - 21 Credit hours.
06 - 21 Credit hours.
07 - 21 Credit hours.
08 - 21 Credit hours.
09 - 21 Credit hours.
10 - 21 Credit hours.
11 - 21 Credit hours.
12 - 21 Credit hours.
13 - 21 Credit hours.

TABLE 3

X^2 TEST OF B.ED PROGRAM SATISFYING RESPONDENTS PERCEPTIONS OF NTTTP FOR VOCATIONAL EDUCATION.

GROUPS	S/A/A	U	D/SD
UMAN	50.00	11.11	38.89
UNB	7.69	15.38	76.92

X^2 (2, N = 31) = 6.287, P <= .0431

18 - Nil.

TABLE &T8

X^2 TEST OF STUDENT HAVING ADEQUATE INFORMATION TO GUIDE HIS PROGRAM.

GROUPS	YES	NO.
UMAN	61.11	38.89
UNB	15.38	84.62

$X^{2(1}$, N = 31) = 6.482, p <= .0109

TABLE 4

X^2 TEST OF HAVING NO SERIOUS PROBLEM WITH ACCOMODATION AND TRANSPORTATION WHEN PROGRAM EXPERIENCES WERE OFFERED IN MORE THAN ONE SETTING.

GROUPS	S/A/A	U	D/SD
UMAN	77.78	5.56	16.67
UNB	23.08	23.08	53.58

X^2 (2, N = 31) = 9.149, p <= 0.0103

F.0.1 DID YOU HAVE ADEQUATE INFORMATION TO GUIDE YOUR PROGRAM? IF YOU ANSWERED "NO", WHAT ADDITIONAL INFORMATION DID YOU NEED?

01 - Yes.

02 - No. I wanted to know if it is possible to register for some courses in technology area. There was no sufficient information. No reason for denial to register for these courses.

03 - No. I did not get any information until I got here. Here too, my name was omitted. I would have liked to know what it, (the program) was going to be. I only got a letter that I have a scholarship.

04 - Yes.

05 - Yes.

06 - Yes

07 - No. I would like some kind of orientation as regards the program itself. What it was going to be like, the nature of what (courses) I was supposed to be taking in my area of studies.

08 - Yes.

09 - Yes.

10 - Yes.

11 - No. I would have liked relevancy to Nigerian education of some of the courses I took especially at the University.

12 - No. I would have liked to have information on the limitations and choice of courses to take.

13 - Yes.

14 - Yes.

15 - No. In my case I did not know what I was to do and I was not able to take some courses because I was not aware of prerequisites required.

16 - Yes.

17 - Yes.

18 - No. In terms of being student, there are many things that happened which took students unawares. Mostly, CBIE representative tried to avoid students he worked with, failed to get or give information because of this avoidance.

09: UNB

01 - No. If objectives were made known I would be in a better position to work towards the stated objectives.

02 - No. I would have liked information on the program prior to registration. Information for selection of courses because some courses were mandatory, and some students have hads problems of credit reduction due to that misunderstanding (of taking wrong courses.)

03 - No. Information on program description, duration and the required coursework prior to coming into the program.

04 - No. Guidiance on core/elective program courses. Some electives were not allocated to my area of speciality. Information on the program : Vocational Education itself, because vocational education is not what I am doing. Lack of information created misunderstanding on the vocational education itself.

05 - Yes.

06 - No. The aims, goals and objectives as well as structure of the program should have been stated precisely to students prior to registration. During implementation in the University, the objectives should have been available and the students always reminded of them.

07 - No. Information regarding technical Vocational Education. What courses exactly should a student take to qualify for the degree. Most people are going to work in their own field, it would have been good they had a sound base. As it is, the value of the degree does not meet the technical needs for the education that Nigerians want. Misconceptions about the nature of the training itself.

08 - Yes.

09 - No. The information on the needs of the program. Information related to the area of speciality not just the credit hours.

10 - No. Information on course organization/structuring.
- Information on procedures and credit for admission.
- Information regarding entitlements and allowances.

11 - No. Information on the nature of the program in general and the kind of alternatives and options you had in terms of electives and core program.

12 - No. I needed to know exactly what the program was about.
- The letter stated Technical Teacher Training Program.
- The content in Vocational Technical was different from what I expected. One with vocational education in Canada and with ours is different. We cannot work here with the vocational degree we have.

13 - No. I would like to know the number of courses from the areas required for graduation. A lot of us have extra courses we did not need as graduation requirement. Many of us would have graduated by now if only we knew exactly what courses were required and which were optional.

Who in your opinion was in a position to make that information available?

F.0.1.1 "08:

01 - Nil.

02 - Program coordinator.
- CBIE.

03 - CBIE.

04 - Nil.

05 - Nil.

06 - Nil.

07 - University. The coordinator.

08 - Nil.

09 - Nil.

10 - Nil.

11 - Probably the coordinator at the University because I assume he probably knows the objectives of the program.

12 - The University coordinator.

13 - Nil.

14 - Nil.

15 - Program Coordinator.

16 - Nil.

17 - Nil.

18 - Program Coordinator
- CBIE : Who is also the administrative agent.

09: UNB

01 - CBIE.
- The coordinator. When I don't know the guidelines how can I really tell who should do what?

02 - Program Coordinator.

03 - CBIE.

04 - CBIE.
- University Coordinator of programs.

05 - Nil.

06 - CBIE.
- The Coordinator.

07 - CBIE: Should know what the University has.
- FME: Should know through the process of continuous evaluation. After each semester or so, the Ministry of Education should ask the students what they do whether it meets their needs.

08 - Nil.

09 - Information during orientation to the University and the program
- Prior to admission.

10 - CBIE: The program administrator.
- Vocational Education Department should have given a structured guidelines and taken time to explain the program to the administrators and students.

11 - CBIE office.

12 - The Nigerian FME through CBIE.
- The structure of the program e.g. teaching method. Speciality area and subjects e.g. Canadian law. Department of Vocational Education: information on practical work and teaching experience. I am limited because of the kind of courses I took.

TABLE 6

X^2 TEST OF ASSESSED PROGRAM-STUDENT RELATIONSHIPS WITH CBIE OFFICIALS AS PROGRAM PARTICIPANTS.

GROUPS	GOOD	FAIR	POOR
UMAN	5.56	38.89	55.56
UNB	23.08	61.54	15.38

X^2 (2, N = 31) = 5.742, p <= 0.0566

13 - The academic and program coordinators.

COMMENTS/SUGGESTIONS ON THE ISSUES OF CONCERN TO YOU WITH RESPECT TO THE ADMINISTRATION OF THIS PROGRAM.

08: UMAN

01 - Instead of restricting students to particular technical electives, they should allow students some freedom.
- They should consider inflation rate in regarding students' stipends.
- They should consider students opinions in making decisions. They seem to throw away students' suggestions and make their own decisions.

02 - First, I would like a structure whereby a student's problem could be listened to and alleviated.
- There should be some means formed for consideration of sincere financial problems of students.

03 - All future participants of this program including students should be required to write an annual report to FME.
- High Commission should get involved.
- Detailed information should be provided to students regarding the program, the duties of their coordinator and their responsibilities to FME, and up to date performances of each program student.
- In the report students should write what happens about the program. A continuous evaluation should be provided. Students should be the ones to write annual reports on the program.

04 - There should have been an on-going evaluation of the program by FME/Nigerian High Commission.
- Up till now I do not understand the functions and effectiveness of "Nigerian Project Office" in the University, that is, what it is or does.

05 - Some information seemed to have been hidden. Students were not usually given an opportunity to have an input. There was only a one-way information flow.

06 - There was poor public relations of administrators to students.

- They are doing proper work of selling this program. I do not know the benefits of this program. We are just doing it.

07 - Generally, I think the administration was very poor. The planning was poor. It seems the program was always experimental throughout the two years.

08 - Nigeria can do well without these middlemen, e.g. the "Nigerian Project Office." If the group came from Nigeria provide adequate information.

09 - CBIE should relate more to students and seek students opinions individually to sample interest of students.

10 - I would think that there should be more flexibility with regards to individual courses (choice of, and number of years) within the program. It looked pretty rigid and a take-it-or-leave-it kind of situation.

11 - Nigerian FME were not effective in telling us what we were to do even being given the Nigerian "Policy on Education." It makes me question what the purpose of the program was, whether we were being used as a means for people to enrich their accounts in SWISS BANK.
- If we were here for a purpose, at least someone should have told us of that purpose, and that might even make us feel good as being part of a noble plan to produce Vocational teachers for Nigeria within a certain period of time.

12 - Program should be more flexible so that students could take enough courses in their major (specialty areas.)
- Courses seemed to have been duplicated. Education courses could have been done only at RRCC during the summer while the regular academic year is spent on courses in our technical area.

13 - Program could have been reinforced if they were to seek students opinion before making decisions that effect students.
- FME completely defeated the purpose of the program. The purpose was to provide technical teachers and the FME has not even cared to know if any one of us is here, nor what we are doing nor what we are going to be doing, whether we are qualified or even available on graduation, for that job they expect us to do.

15 - The program was poorly administered. Students were not regarded as people. They were not consulted on decision making in matters that affect them. I am not sure our Federal government was interested in the program hence they have not come to see even how the program is

run. If this program is to continue, the Embassy must be involved. The money part of it must be contracted by the Nigerian Embassy (High Commission). They should be empowered to see how students fare and monitor them. Since we came into the program they have not asked students again how they feel.

16 - The Administration does not seem to be honest. They do not notify students of what they want to do. They design activities and throw it on students with no choice or alternatives.

17 - Poor and ineffective communication on the part of the University Administrators as well as the Department.

18 - It seems to me as if CBIE rushed to select students without adequate assessment of students' interest and capabilities regarding work load. Most students felt very much alienated by CBIE which is actually a body responsible for their program implementation and hence their welfare in Canada.

09: UNB

01 - The program was administered very poorly at the same time they (administrators) kept certain things secret from us and also treated us like objects. There was no flexibility for students' input to program administration.

02 - Certain things were not open. It seems as if something was hidden from us. Until almost my graduation from this program I did not know who my program coordinator was to go for information. There always seemed to be a conflict between the officers in this program.

03 - The administration was fairly good. Some students came on State scholarship but many ended up returning without their degrees. Some ended up marrying here to make ends meet. Here in the program students were guaranteed financially unless they blew the chance themselves.

04 - The channel chain or heirarchy of command is not good. In terms of power it seems the department is trying to sell itself. It does not consult students but CBIE seems to accept the recommendation without assessing them. CBIE should have the final say in all matters of the program that affect students after due consultation with FME.

05 - Federal Government (of Nigeria) should have been more involved in the monitoring especially when we go back home. They pay the scholarship fee and yet they do not know what you do, e.g. fake qualification. FME should account for students in the program.

06 - The program was not administered to expectation. Availability of criteria and standards indicated in levels and options of students' courses were not enforced in any way. These have resulted in some lower standards.

07 - FME made the agreement but they have no relationships with the students under the contract agreement in a way that they know how the program should be improved to meet the needs of the country. Many students have returned from Nigeria but program Administrators have not sought their contribution regarding their home situation to shape the program focus and orientation.

08 - The program was not really well defined. Vocational education is really about being in the trades. The lack of definition affected my attitude towards NTTTP generally. I think I am doing technical education instead of vocational which is less in theoretical base than technical and technology. My notion of vocational education is wood work, carpentry, automechanic or other workshop trades. I like the flexibility allowed me to take other courses in my area of specialty.

09 - The program was effective. But when there is a change in government many things are effected in one way or the other.

10 - There was a complete lack of information about the program. Goals were never available nor explained. Instructors in vocational industrial education were good and engineering did not seem to like student teachers taking courses in their areas. I do not think that in this University the department of vocational education knew exactly what CBIE wanted them to do, that is if CBIE knew what they wanted either. If the Department were to know what CBIE wanted at least my advisor was quite capable and could have provided me needed information.

11 - The administration was inadequate, not well planned. Information not adequately provided to the students regarding the program and students' expectations and practices.

12 - CBIE/FME should for future program interview students in order to structure their programs to reflect both

the students concerns and program goals. In this case it was not done.

- They should survey and assess the curriculum to see that it meets the program's objectives, i.e. what Nigeria society needs. If you want to train lawyers, you do not use the legal secretaries' curriculum.

13 - The program administration was fair. But they could have done better if they had taken time to listen to students. We felt we should have done more courses from our own area of specialty. Provide course information adequately so that a student is not told midway that his/her course is not accepted e.g. in the way provided in the university catalogue.

Appendix B

E.02

Knowledge and Skills

TABLE 7

X^2 TEST OF B.ED PROGRAM ENABLING STUDENT TO BE MORE KNOWLEDGEABLE OF THE CONCERNS OF EDUCATION IN NIGERIA.

GROUPS	S/A/A	U	D/SD
UMAN	22.22	11.11	66.67
UNB	69.23	--.--	30.77

X^2 (2, N = 31) = 7.307, p <= 0.0259

TABLE 8

X^2 TEST OF B.ED PREPARING STUDENT ADEQUATELY FOR VOCATIONAL TEACHING IN NIGERIA.

GROUPS	S/A/A	U	D/SD
UMAN	66.67	5.56	27.78
UNB	30.77	15.38	53.85

X^2 (2, N = 31) = 3.963, p <= 0.1378

Give the names of the two courses in your B.Ed program which were the most useful for teaching in Nigeria.

01 - Cooperative education.

TABLE 9

X^2 TEST OF INSTRUCTORS PERMITTING ASSIGNED PROJECTS TO REFLECT NIGERIAN CONTENT IF STUDENT SO DESIRED.

GROUPS	S/A/A	U	D/SD
UMAN	38.89	27.78	33.33
UNB	61.54	7.69	30.77

X^2 (2, N = 31) = 2.389, p <= 0.3029

TABLE 10

X^2 TEST OF THE PERCEIVED USEFULNESS AND RELEVANCE OF TECHNICAL ELECTIVE COURSES FOR TEACHING IN NIGERIA.

GROUPS	S/A/A	U	D/SD
UMAN	33.33	16.67	50.00
UNB	92.31	7.69	--.--

X^2 (2, N = 31) = 11.493, p <= 0.0032

TABLE 11

X^2 TEST OF THE PERCEIVED USEFULNESS AND RELEVANCE OF ENGLISH LANGUAGE COURSE FOR TEACHING IN NIGERIA.

GROUPS	S/A/A	U	D/SD
UMAN	33.33	11.11	50.00
UNB	92.31	--.--	7.69

X^2 (2, N = 31) = 10.839, p <= 0.0044

- Study of industry.

02 - Mathematics courses.

- Subject Development and Evaluation.

03 - Mathematics.
- Industrial safety. Industrial relations.

04 - ICBL (Individualized Competency Based Learning.)
- Audio visual development.

05 - Microteaching.
- Audio visual development.

06 - ICBL.
- Subject development and evaluation.

07 - Computer Science.
- Subject development and evaluation.

08 - Mathematics.
- Study of industry.

09 - School organization.
- Subject development and evaluation.

10 - Organic chemistry.
- Subject development and evaluation.

11 - Media Production.
- Supervision (ideas in leadership.)

12 - General Instructional Method.
- Subject development and evaluation.

13 - Chemistry.
- Subject development and evaluation.

14 - School Organization.
- Study of Industry.

15 - Madia Production.
- Subject development and evaluation.

16 - ICBL.
- Subject Development and Evaluation.

17 - Audio Visual Aids.
- General Instructional materials.

18 - High technology. Information Gathering and Processing.
- Preparing visual aids. ICBL.

09: UNB

01 - Curriculum Development.
- Evaluation and Mearurement.

02 - Counseling.
- Psychology.

03 - Teaching Methods.
- Laboratory Organization/Management.

04 - Environmental Ecology.
- Plant Physiology. Population Biology.

05 - Fluid Mechanics.
- Hydraulics.

06 - Counseling.
- Learning Disability: handicapped.

07 - Psychology 1000.
- Lesson Preparation. Teaching Methods.

08 - Application of Computers in Education.
- Teaching Methodology.

09 - Preparing Instructional Aids.
- Individualized Learning.

10 - Teaching Method.
- Child Development.

11 - Measurement and Evaluation.
- Child Development.

12 - Teaching in Nigeria.
- Lab Management and Safety.

13 - General Techniques of Instruction.
- Teaching Industrial Education.

- Industrial Lab Organization and Management.

Give the names of the two courses in your B.Ed which were the least useful for teaching in Nigeria.

08: UMAN

01 - Safety in Industry
- Education Foundation

02 - School Organization.
- English Composition.

03 - English.
- Social Foundations.

04 - Social Foundation of Education in Canada.
- Principles of Business Education

05 - Social Foundations.
- Administration of education in Canada.

06 - ICBL.
- Social Foundations

07 - School Organization.
- Social Foundation.

08 - Industrial Relations.
- History and Foundation of Vocational Education.

09 - None.

10 - ICBL. Not a technique I would like implemented. It requires a certain degree of discipline that is not yet available in Nigeria.
- Instructional Methods.

11 - Industrial Relations.
- N/A.

12 - Industrial Relations.
- Foundation of Education.

13 - English Composition.
- Industrial Relations / Safety,

14 - English 4.091. I did not learn anything new or improve my working skills except get a low grade.
- Social Foundation of Education.

15 - English Composition.
- Cooperative Education.

16 - Industrial Design.
- Industrial Relations.

17 - Social Foundation of Education.
- ICBL.

18 - Industrial Relations.
- Communications.

09: UNB

01 - Canadian Educational Law.
- N/A.

02 - Education Law in New Brunswick.
- Organic Chemistry.

03 - N/A.

04 - Calendar Geography.
- Mass Media Application.

05 - Field Studies.
- N/A.

06 - Safety as was taught here.
- Study of Canadian Industry as groups.

07 - English Language (1st year.)
- Counseling.

08 - School Law and School Organization.
- N/A.

09 - School Administration and School Law.
- Child Development.

10 - Shop Management and Organization (Don't want to be a teacher.)
- Education 1004: Health and Interpersonal Relations: Too simplistic.

11 - N/A. There were choices and flexibility.

12 - New Brunswick School Law and Administration.
- History of Education: No mention of places like Africa or Nigeria, except North America and Europe.

13 - Industry visits to Canadian Industries.
- Introduction to Teaching.

List the aspects of your B.Ed program experiences most transferable to your Nigerian work situations.

08: UMAN

01 - Relating Industry to school and work programs.
- Cooperative education program components.

02 - Mathematics concepts.
- Audio visual aid preparation.

03 - Cooperative Education.
- Industrial safety.

04 - Practice Teaching in school.
- N/A.

05 - Teaching experience.
- N/A.

06 - Computer concepts.
- Microteaching techniques.

07 - Teaching Methods.
- Development of programs and courses.

08 - Industrial practice.
- Teaching practice.

09 - Student teaching.
- Industrial Training.

10 - Teaching experience aspect: Academic courses.
- Work experience.

11 - Development of audio visual. Break the trend of lecture method of teaching.
- N/A.

12 - Teaching methods: Microteaching, Developing programs.
- N/A.

13 - Instructional methods.
- Program and subject development.

14 - Practice teaching (involves classroom management.)
- Psychology of learning (people are people everywhere.)

15 - Teaching techniques/methods.
- N/A.

16 - Individualized learning concepts.
- Development of programs.

17 - Student teaching practice.
- Work placement.

18 - Audio visual techniques and methods.
- Information gathering and processing.

- Subject development and evaluation.

09: UNB

01 - Child development: Psychology.
- Good technical workmanship: reports.

02 - Instructional Material development aid preparation.
- Lesson planning.

03 - Preparation of teaching materials.
- Classroom management and child psychology.

04 - Industrial field trips.
- N/A.

05 - Most aspects are transferable.

06 - Individualized Instruction package preparation.
- Water drilling and oil extraction techniques.

07 - Teaching methods: If teachers had applied that in high school, I would have done better.
- Seminar: Problems, aid trends in Canada.

08 - Audio visual aid development. Production of teaching materials.
- Media.

09 - Fluid mechanics.
- Thermodynamics of machines.

10 - Safety aspects of school shops and job settings.
- Understanding Individual differences among students.

11 - Curriculum development.
- Instruction design. Individualized learning.

12 - Student - teacher interaction and relationship.
- Attitudes towards work. Accountability is taught and is regarded to be high and useful.

13 - Electronics courses.
- Counseling courses.

List the aspects of your B.Ed degree program experiences least transferable to Nigerian situations.

08: UMAN

01 - The strict relationships of foundation courses to Canadian situations.

02 - Industrial design.
- English composition component.

03 - School organization keyed to Canadian content.

04 - Industrial placement because I did not do any work due to union regulation.

05 - University Education courses, not the minor area.

06 - ICBL not yet ready for use in Nigeria.
- Industrial design.

07 - Mental Retardation.
- Education Foundation Courses e.g. Social Foundations.

08 - Classroom management and school laws of Canada.
- ICBL aspects as programs: Nigeria students will beat the system.

09 - Some aspects of Geography of Canada and U.S.A.

10 - ICBL.
- Study of Industry.

11 - ICBL: Too expensive for our present state of development.

12 - The Canadian content in social foundations.

13 - Canadian Content: Industrial Relations
- Study of Industry.

14 - Managing School facilities.

15 - Relationship between teacher and student, School laws and school descipline.

16 - Winnipeg General strike and such contents in Industrial Relations. - Industrial Design.

17 - Nil.

18 - Development and History of Canadian organized Labour.

- Subject development and evaluation.

09: UNB

01 - Child development: Psychology.
- Good technical workmanship: reports.

02 - Instructional Material development aid preparation.
- Lesson planning.

03 - Preparation of teaching materials.
- Classroom management and child psychology.

04 - Industrial field trips.
- N/A.

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13 - Canadian Content: Industrial Relations
- Study of Industry.

14 - Managing School facilities.

15 - Relationship between teacher and student, School laws and school descipline.

16 - Winnipeg General strike and such contents in Industrial Relations. - Industrial Design.

17 - Nil.

18 - Development and History of Canadian organized Labour.

09: UNB

01 - Canadian school laws.

02 - Computer courses for application in Education.
- Business and studies in Canadian Industries.

03 - Communication which was just comprehension.

04 - Winter related specimens in Ecology lab.

05 - Don't know.

06 - New Brunswick school law ED 3 5.
- Money and Banking.

07 - Seminar: Problems and Trends. Instructor pick problems for discussion. Students should pick their problems.

08 - Computer aided Instrution.

09 - Counseling and Guidance Psychology.
- Special Education.

10 - School administration course (should not be compulsory.)

11 - Economic courses 1000.
- Business courses B.A. 1203.

12 - Discipline in general. None noticeable in school because of school laws. Teachers are disarmed.

13 - Nil.

Additional comments on the relevance of the programs academic knowledge and related skills to work situations in Nigeria.

08: UMAN

01 - My technology courses, I think I can apply readily. Most of them are relevant.

02 - Some courses were good to guide setting up programs and developing courses in one's area.

03 - While most of the courses are not directly related to Nigeria situations, it is up to individual students to relate their experience to Nigeria situations.

04 - Adequate.

05 - Yes, for Administration purposes and decision making situations regarding work place.

06 - As a teacher and as of now I know better Public Relations and people in general and adminstrative knowhow. Instructors should allow students to take courses of their interest in their technology area.

07 - The courses were good but could be improved to permit Nigerian situations.

08 - Most are what we can adapt and implement. We are exposed to how they do jobs for other countries. e.g. Tune (orient or expose) students to job markets and productivity.

09 - Skills and knowledge will enable effective and better teaching of the technical field not general content.

10 - The Chemistry aspects are purely academic and applicable in all situations.

11 - You can only see the relevance of the courses if one is able to apply the skills having acquired the knowledge. My duty will be to implement them to suit the social and economic situation in Nigeria not verbatum transfer e.g. The professor did this so let me do that too, everything can not be the same.

12 - I appreciated what I learned in my second teachable area. I have acquired knowledge in specific, well demanded areas: Nutrition and quality control.

13 - Most are relevant. But we still have to select what will apply when we get there.

14 - The courses in general were relevant. A few of them were not, such as English 4.091 and education 116.101. Screen and modify some courses.

15 - The courses were biased towards Canadian context. You have to really restructure and apply them to meet Nigerian needs. If you carry knowledge like school management to home situation, it will not work.

16 - It is relevant. I think I can use it to cause some impact on Nigerian situation.

17 - Moderately relevant. Individuals need to adapt and relate their skills and knowledge to Nigerian situation.

18 - Academic knowledge may be relevant but there should be part of this program which should be devoted to preparing students particularly to areas that are suited to their specific needs in Nigerian situation. They did not seek from students or relevant authority to know what should deserve greater attention.

09: UNB

01 - There should be more emphasis on Nigerian education situation and setting.

02 - I have developed in me a concern for improvement of Nigerian education. I have come to identify and develop a personal philosophy of life. These may not have come from the courses in vocational education.

03 - The courses taken have reinforced my college technology area, opens up more opportunity for me. And now I can understand how to teach some of the subject area itself.

04 - In terms of electives they help broaden my views and knowledge of how human beings and their activities could be detrimental to humanity and the environment, stimulate concerns on ego system.

05 - We should try to interact with other Canadian students to learn more and to be able to apply the knowledge as they do.

06 - I gain from most of the courses. But I lack teaching experience for classroom work.

07 - Give us opportunity and skill to effect changes.

08 - Must be modified to suit Nigerian needs. That it is successful in Canada may not mean it will be successful in Nigeria.

09 - Skills and knowledge are relevant and should be left where they are.

10 - Most of them are relevant. The only problem will be frustration if you could not find audio visual equipment to use.

11 - In general they were suitable. They relate appropriately to my area. I had an expanded and considerable knowledge in methods of communicating knowledge.

12 - There was no course that dealt with educational or work situations in Nigeria say through guest speakers or Nigerian officials. Issues and trends in education in Nigeria e.g. through such courses like Problem and Trends in Vocational education should have reflected situations in Nigeria in relation to Canadian situation.

13 - Some of the courses will be useful to Canadians but they are not courses we should have to take.

Appendix .

E.03

Industrial Work Experience

Describe what you did for the industry-related experience component of NTTTP.

08: UMAN

01 - I worked with the reorganization of the industry at versatile, then with another company in the manufacturing department in preventative maintainance.

02 - Field and land survey. Some municipality design.

03 - 6-week work placement with BIRD construction; site visits, Job coordination and estimating.

04 - I rearranged/label electronic components in their storage compartment, slotted and identified the component. Work observation. M;05 - I worked in Canadian Forest Services and saw how it operated which was very relevant to the courses at the University.

06 - I was placed in the production laboratory where I did trouble shooting of supply and trouble cards to determine workability (of components/equipment) before assembly.

07 - Manual labour such as moving machine parts and working with computers.

08 - I did electrical and mechanical design drafting. I worked on the switch gears.

09 - I was a technical assistant for Department of agriculture in Winnipeg.

10 - I carried out chemical analysis using various chemical instrument including automatic absorbtion.

11 - I worked in the architectural firm. I did basic layout. I saw how the firm operated and treated guests.

12 - Quality control. Checks of drugs and pharmaceuticals pesticides and liquid detergents.

13 - I worked in the chemical laboratory to analyse several samples of ore like copper, iron and gold.

14 - I worked in the laboratory in a meat industry. Quality control in meat. Food laboratory and packaging.

15 - I got a general overview of the industry. Mostly observation and some hands-on work experience, two places: quality control and Industrial engineering.

16 - I did some surveying and tracement of townships and property line survey.

17 - I worked at Bristol Aerospace in calliberation of machine.

18 - I worked in hospital in area that related to my technology specialization.

09: UNB

01 - Nothing practical. None in the industry.

02 - Went on field trips. We did not really go to many useful places. To begin with, how many industries are there in Fredericton.

03 - Field trips. Visited a couple of industries. Students helped to choose the sites for visits.

04 - Field trips to industries to see how techniques are being applied in actual work situations.

05 - Field trip. I don't think I learned much from that.

06 - Visited industries. Wrote a report on the visit.

07 - Industry tour. Visiting industries. People explained the aspects of organization.

08 - Industry visits.

09 - We worked in University laboratories. Visited industries.

10 - We did not do anything other than the tour to industrial sites which were organized to meet the interest of a group rather than individuals.

11 - Field trips which we visited several industries.

12 - Went on industrial visits and tour. Go around plants and later write reports.

TABLE &T30

X^2 TEST OF STUDENT AGREEMENT WITH MEETING THE OBJECTIVES FOR THE RELATED WORK COMPONENT OF NTTTP BY THE ACTIVITIES OF THE EXPERIENCE HE HAD.

GROUPS	YES	NO.
UMAN	72.22	27.78
UNB	23.08	76.92

X^2 (1, N = 31) = 7.000, p <= 0.0069

TABLE 12

X^2 TEST OF PERCEIVED CHANGE OF FUTURE PLANS AS A RESULT OF THE INDUSTRIAL/RELATED WORK EXPERIENCE.

GROUPS	YES	NO.
UMAN	11.11	88.89
UNB	23.08	69.23

X^2 (1, N = 31) = ?.??, p <= ?.??

13 - Visit to industry only.

Your future plans have changed as a result of this industry-related work experience. State your reasons.

08: UMAN

01 - No. The idea was good but the duration was not enough. I did not learn much from it. Time was too short.

02 - No. We should have had some courses in our technology area that reinforces and relates the skills and knowledge to the industry placements.

03 - No. I have had previous experience as a teacher before coming to the University. I have also worked in other industries, so that a few weeks could not change anything in me.

04 - No. I did not experience hands-on work. My future plans are independent of items 3 (experience in industry) and 2 (the objectives) above.

05 - No. I do not know whether this industrial experience will take me from classroom and push me to the industry.

06 - Yes. I became more interested in my technical area than before that placement.

07 - No. I do not think the purpose was met in the sense that I felt that I was taken advantage of or I was used as a labourer.

08 - No. I saw the experience as part of the NTTTp total experience, a necessary part of the program.

09 - No. Because I can gain employment in future with my present qualifications.

10 - No. The placement did not have any effect on my professional goals.

11 - Yes. I was very impressed by the entire layout, improved communications. If I teach or own an office, I will emphasize open office for communication purposes.

12 - No. The placement could not have changed any plans because I had known, and made up my mind on what I was going to do which is work in medical area.

13 - No. I still want to do what I planned to do. It tended to reinforce my opinion about what I have to do.

14 - No. It reinforced my interest in working or teaching in Industry.

15 - No. B/C. I still intend to do what I had set for (my mind) to do since my high school. My life long goal still holds. I still want to go into an engineering field. I do not intend to go into teaching now. Might be after several years of industrial work. Right now I have no energy and interest for teaching unless I had a Ph.D to teach at the university so that I have less hassle (trouble from student discipline.)

16 - No. Because I am still going to continue in my line. I had an unfulfilled experience and a waste of time in that place. I did all what I had done previously during my college placement.

17 - No. It reinforced my position (decision) to teach in the vocational area.

18 - No. It was in the area for which I was trained. It was satisfying but did not influence me in any direction.

09: UNB

01 - Can't decide. No comment because I was not placed in Industry. This does not apply to me.

02 - No. The experiences were not related to my case.

03 - Yes. By seeing someone through industrial visits do something, even when you do not actually do the work, you can still learn. It made me decide that I will still use industrial experience because it is a form of motivation. It brings students closer to the practitioners so that they want to identify with them (the workers.)

04 - No. We are surposed to be vocational teachers. It would have been more relevant to be at, and visit school shops to see how the processes are being carried out.

05 - No. Because the field trips was so short. I cannot change my mind because of an hour's visit to industry.

06 - No. We just went to admire what others were doing and not to take part in doing them.

07 - Yes. Because I may work in the industry and may be in a position to do the same explanation. The tour is what can be feasible for teacher training (education.)

08 - No. Because it did not give me the real practice. You can describe a process but we also need to perform it to be accepted. Seeing people do things is not really the same as you participating in the process.

09 - Yes. I have a lot of flexibility because I can work in the industry and at the same time I can teach in the technical schools.

10 - No. It did not effect me either way.

11 - No. Because it was only observable trips. I did not indulge in or involve in any kind of learning and practice experience in terms of practical work.

12 - No. I did not gain anything there. I saw how industrial work are carried out. I did not have any hands-on experience.

13 - No. I am particularly interested in working rather than visiting. I would like to do this with or without pay. The practical experience is what I deserve. One cannot have practical experience through visits.

TABLE 13

X^2 TEST OF PREFERENCE IN STUDENT'S SITUATION OF A DIFFERENT EXPERIENCE OTHER THAN WHAT STUDENT DID (FOR THE INDUSTRY-RELATED EXPERIENCE.)

GROUPS	S/A/A	U	D/SD
UMAN	11.11	22.22	66.67
UNB	69.23	7.69	23.08

X^2 (2, N = 31) = 11.138, p <= 0.0038

A different experience other than what you did would have been preferable in your situation. Why?

08: UMAN

01 - I disagree (D). The placement was good but the time was too short.

02 - I agree (A). Instead of placement in the industry, we would have taken some industry related courses in our technical area. The individual experience was the same kind of thing I did in college.

03 - I disagree (D). Because that is the area (field) of my interest.

04 - I disagree (D). Because industry work is useful and necessary.

05 - I am undecided (U). I need to be in work situation to know actually how useful this was to me.

06 - I disagree (D). More time for the work would have been preferred.

07 - I strongly disagree (SD). I needed experience in the technology area I studied in instead of loading and off loading labour.

08 - I am undecided (U). I don't think I have any other thing to compare with. I don't know which other thing would have been useful.

09 - I disagree (D). Because I think the knowledge I gained from the experience is important. I would not have gained that knowledge otherwise.

10 - I am undecided (U). It would not have mattered to me.

11 - I disagree (D). Because I think the industrial attachment was very relevant to the program.

12 - I disagree (D). It was strongly related to the Biochemical area which is related to the core courses which I need for my studies e.g. to courses like Molecula Biology (DNA) substitution.

13 - I disagree (D). Other than stay home for holidays, I would like anything else.

14 - I disagree (D). I don't think there is any other experience such as taking courses (in the technology area) would have been useful at all.

15 - I disagree (D). Because we are technologists in the process of being converted to teachers. If I finally teach, I have to know what is going on in the industry. I am not (simply) an academic teacher.

16 - I disagree (D). But (however) I gained nothing new nor received pay for what I did.

17 - I am undecided (U). I cannot think of any other option that would be suitable in the circumstance.

18 - I disagree (D). It benefited me. It is related to what I will do back at home.

09: UNB

01 - I strongly agree (SA). I would even volunteer to do actual work for experience. I did volunteer to do this but I was denied the opportunity to do so.

02 - I strongly agree (SA). Get to take part in actual practice.

03 - I disagree (D). The experience provides information on a range of career choices since this stage of our schooling (education) is still a searching one (9 stage) not to be fixed.

04 - I strongly agree (SA). An experience say in actual industry.

05 - I am undecided (U). I never had the experience and so cannot tell whether it would be useful or not.

06 - I strongly agree (SA). To let us in there (the industries) to use our hands to do work ourselves.

07 - I disagree (D). I think that there is nothing else we needed. We are teachers not engineers.

08 - I agree (A). Because what we did was not adequate.

09 - (Undecided). If there is any other thing available that would help (be useful to) the students like placements in the industry to work for a few months.

10 - I strongly agree (SA). Letting me work in my area of specialty.

11 - I strongly agree (SA). As a programmer I would have been more interested in computer application in education like being placed in a school where computer assisted learning is done.

12 - I strongly agree (SA). Because if I had got into industrial work situation it would have given me what to do. Mere going there to watch in a fraction of a minute what people do did not produce any good outcome. I would have liked to have at least a week's experience in my field to see how things are done in that particular industry. With or without payment, the experience is important in the long run.

13 - I strongly agree (SA). Same as above (that is his responce to item 3.3.1. re 9(13)) Which reads: I am particularly interested in working rather than visiting. I would like to do this with or without pay. The practical experience is what I desire. One cannot have

TABLE 14

X^2 TEST OF STUDENTS BEING PLACED IN INDUSTRY FOR WORK EXPERIENCE.

GROUPS	YES	NO.
UMAN	94.44	5.56
UNB	7.69	92.31

X^2 (1, N = 31) = 23.330, p <= 0.0001

practice experience through visits.

If you answered yes, specify the industry with which you were placed.

08: UMAN

01 - Yes. Versatile Farm Equipment and Flyer Bus Company, both in Winnipeg.

02 - Yes. City of Winnipeg Works Division, Transcona.

03 - Yes. Bird Construction Company.

04 - Yes. Pulse Engineering Limited.

05 - Yes. Canadian Forest Services, Winnipeg.

06 - Yes. Sperry Univac Computer Defence Systems, Winnipeg.

07 - Yes. Burroughs Business Machines.

08 - Yes. Federal Pioneer Electric Company.

09 - Yes. Manitoba Agriculture.

10 - Yes. Manitoba Provincial Technical Chemical Laboratories.

11 - Yes. Acoy Partnership Architectural Firm.

12 - Yes. R.W. Packaging Pharmaceutical Company.

13 - Yes. W.M. Word Technical Provincial Laboratory on Logan.

14 - Yes. Canada Packers Limited.

15 - Yes. Motor Coach Industries.

16 - Yes. Department of Highways, Manitoba.

17 - Yes. Bristol Aerospace in Winnipeg.

18 - Yes. St. Boniface General Hospital X-Ray Laboratory.

Appendix

E.04

Student Teaching Experience

All respondents specified NO for PLACEMENT and N/A for TYPE

TABLE 15

X^2 TEST MEETING OBJECTIVES FOR THE STUDENT TEACHING COMPONENT OF NTTTP.

GROUPS	YES	NO.
UMAN	94.44	5.56
UNB	15.38	84.62

X^2 (1, N = 31) = 19.886, p <= 0.0001

OF INDUSTRY. You met the objectives for the student teaching element of NTTTP through the experience you had. How?

08: UMAN

01 - Yes. Because I taught for almost three weeks and tried various teaching methods to see the one that worked best.

02 - Yes. Student teaching was a prerequisite to graduation and it gave me opportunity to meet kids and study/understand their classroom behavior.

03 - Yes. I taught. I had first hand experience with the students. Based on my experience, I could make a comparison between our system and theirs here.

04 - Yes because I could apply myself in a classroom setting. I was exposed to the structure of curriculum in my area in mathematics in the whole school.

05 - Yes. By the experience I had.

06 - Yes. I was able to teach my course successfully. Without anybody evaluating me, at least I know I am able to do satisfactorily.

07 - No. The length of time was not enough.

08 - Yes. I implemented what I learned in classroom much more experimentally/practically than simulation based on what we learn in class.

09 - Yes. I acquired new knowledge and experience which will facilitate/improve my teaching skills.

10 - Yes. I acquired the practical skills of teaching which can only be obtained by doing rather than by reading.

11 - Yes. If I evaluate myself I was not too poor. I tried to implement the theories I had learned.

12 - Yes. I had the teaching experience which made me confident to teach anytime in the future. Even if I become a medical doctor I will still find time to go to the classroom to do some presentations in my field, and I will be deemed qualified to do so not only as an academician but as a professional in both (areas, teaching and medicine.)

13 - Yes. Because I noted the areas where I made mistakes to improve in case I happen to teach again. My cooperating teacher helped to guide me.

14 - Yes. I was able to prepare a lesson and teach it.

15 - Yes. By the mere fact of being in the classroom seeing how things work was Ok (adequate) in my view.

16 - Yes. Because I taught practically everyday for the last five weeks.

17 - Yes. Because I felt I accomplished the intended goal which was to satisfactorily student-teach in classroom situation.

18 - Yes. As far as it relates to student teaching.

09: UNB

01 - No. It was phoney. Not real.

02 - No. I did not participate in student teaching.

03 - Yes. As long as we are not going to teach here nor be registered and licenced here. We are going back home. To teach our colleagues/ ourselves who understand our culture made the criticism and the evaluation much related and valid and more so we all were at the same level.

04 - No. It was not long enough. Internship like the rest of Canadian students. You learn more. Mix with the community. Learn about them. It adds to your total experience.

05 - No. I did not gain anything from it. Teaching internship is universal. That is where FME failed. They have their requirements but they did not want to know whether the students met the requirements to be the teachers they count upon. In Nigeria you cannot teach unless there is a shortage of teachers until you have a teaching certificate.

06 - No. We were not exposed to the actual teaching environment. Instructor used student-evaluation (method) to evaluate us.

07 - No. Because when you teach (your colleagues) those with the same qualification with you, the way they try to manage the situation with you is not like teaching other (younger) students in your real classroom.

08 - No. Because the experience was not (like) practising and playing the real life assumption of teacher's role and performing duties in terms of student - teacher relationship.

09 - Yes. You faced the class as a whole, and the class assesses your performance.

10 - No. We taught within our group. Problem of discipline. I did not have a first hand experience on how to handle a problem student. All teaching and research materials were easily available which is not so in the school setting.

11 - No. In most of teaching situations the make up was not unique. Colleagues were not interested in what you

were teaching. The experience did not provide the real life situation that required the participation of students. You taught any aspect of your field. I taught programming. Only about 2 or 3 people who are also in the computer field asked questions. Evaluation was almost impossible. You can not really assess a teacher in that (situation.) It was hard to get honest opinion of your student, student-evaluation was not valid.

12 - No. Because I did not teach in a real school setting.

13 - No. We did not have the intership.

TABLE 16

X^2 TEST OF PERCEIVED PREFERENCE IN THEIR SITUATION FOR A DIFFERENT EXPERIENCE OTHER THAN WHAT STUDENTS DID FOR STUDENT TEACHING COMPONENT OF NTTTP.

GROUPS	YES	NO.
UMAN	16.67	83.33
UNB	84.62	15.38

X^2 (2, N = 31) = 14.072, p <= 0.0002

A different experience would have been preferable in your situation. Why?

01 - No. Like, if we are going to be teachers, it is good to experience what it is like to teach to get some practice between studying and your going out to do the actual teaching.

02 - No. This was better than the industrial experience.

03 - Yes. I would have liked to be placed in a technical college where I could teach in my technical area, otherwise I will feel under-utilized if I just have to teach mathematics. Why did I need (have) the technical area them?

04 - No. The experience satisfied my expectations. I met my objectives.

05 - No. Because we needed the teaching experience to relate theory to real classroom situation.

06 - No. Because this is vocational education I have been in industry. It is nice to be in classroom also. Doing something else will defeat the purpose.

07 - No. I believe in student teaching for teachers but the duration should have been longer.

08 - No. Because you actually have to be in that classroom setting to do justice to the profession (professional training) if you are going to be a teacher.

09 - No. I liked the experience. Nothing else would have been preferable.

10 - No. Because it would not have made any difference in terms of my professional job (goal).

11 - No. Because I have learned to practicalize what I studied.

12 - No. Because any other experience would not tie in with our plans and the goals of the Teacher Training Program.

13 - No. To be a teacher you have to try theories out and that was the only opportunity for this (us).

14 - No. If I am going to be a teacher at the end of all this, nothing else can substitute for the practice teaching experience.

15 - Yes. I would have instead liked to work in industry at a particular project.

16 - No. There is no other place I can get that interaction with the students and no one can take that experience from me.

17 - No. Because I think student teaching is vital to the program.

18 - No. I will be a teacher and have not decided otherwise.

09: UNB

01 - Yes. Because a formal teaching practice would have been the right thing like the 4-month student internship that others do.

02 - Yes. Would prefer to have teaching practice.

03 - No. Since I had learned to stand up and talked before others, it will not take me too long to master the techniques of communication to communicate (share) my ideas.

04 - Yes. The actual involvement (participation) in the internship program was no there.

05 - Yes. I would have preferred student internship to have it in New Brunswick so that I know what I am going into in teaching.

06 - Yes. Formal teaching pratice experience in a classroom where I have actual student-true/real, or actual evaluation that makes me feel I am now passing through a formal testing time that must require me put on efforts to succeed.

07 - Yes. It would mean teaching realstudents in the actual teaching environment.

08 - Yes. Actual student teaching experience.

09 - Yes. Because I would be able to see clearly what is needed as a teacher.

10 - Yes. Require school placement. See actual students, not a group I have been working together. We would learn some (points) techniques from experienced teachers.

11 - No. Our classmates made up our class population. Amount of teaching allowed was not sufficient. It was an artificial type of experience, environment and setting.

12 - Yes. It should have been the real practical teaching even without pay.

13 - Yes. Attach us to industrial setting for practice rather than school experience. If your answer was yes to having the opportunity for placement, specify the school level you student-taught:

01 - Grade 11 and 12	Machine Shop.
02 - Grade 7,8,10 and 12	Mathematics.

TABLE 17

X^2 TEST OF STUDENT HAVING OPPORTUNITY FOR SUPERVISED STUDENT TEACHING PRACTICE.

GROUPS	YES	NO.
UMAN	94.44	5.56
UNB	--.--	100.00

X^2 (1, N = 31) = 27.187, p <= 0.0001

03 - Grade 9,10,11, and 12 Mathematics.

04 - Grade 9,11, and 12 Mathematics.

05 - Grade 11 and 12 Geography.

06 - Grade 11 and 12 Computer Science.

07 - Grade 10 and 11 Electronics.

08 - Grade 10 and 11 Math. and Physics.

09 - Grade 10,11 and 12 Geography.

10 - Grade 11 and 12 Organic Chemistry.

11 - Grade 10,11 and 12 Drafting.

12 - Grade 11 and 12 Chemistry.

13 - Grade 10 and 11 Chemistry.

14 - Grade 11 and 12 General Science:Phy.Cem.Bio.

15 - Grade 10,11 and 12 Drafting, Eng. Concepts.

16 - Grade 10,11 and 12 Mathematics.

17 - Grade 10,11 and 12 Mathematics.

18 - Grade 10 and 12 Gen.Sc. and Bio. Respectively.

No respondent in UNB specified placement in public

TABLE 18

X^2 TEST OF PERCEIVED EXISTENCE OF POLICIES OR REGULATIONS THAT EFFECTED THE IMPLIMENTATION OF THE STUDENT TEACHING COMPONENT OF NTTTP.

GROUPS	YES	NO.
UMAN	33.33	66.67
UNB	92.31	7.69

X^2 (1, N = 31) = 10.782, p <= 0.0010

school classroom. If your response to the existence of adverse policies in regulations was 'yes', enumerate and comment on three main regulatory policies or factors.

01 - No.

02 - No.

03 - No.

04 - No.

05 - No.

06 - Yes. Restriction due to the fact that we were temporary in the school.

07 - Yes, Government Policy. Interns were not paid. This would help improve student teaching in general.

08 - Yes, Contract Policy. Irregular Timing. Could carry out student teaching practice at other time.

09 - No.

10 - No.

11 - No.

12 - No.

13 - Yes. University Policy. The timing and arrangement for placement for that period was poor.

14 - No.

15 - No.

16 - No.

17 - No.

18 - Yes. Contract Provision: Performing duties under illegal conditions and we were not aware of that situation (immigration regulation?)

01 - Yes, Immigration. They should allow students to be placed in schools.

02 - Yes. Time limitation. Perhaps administration could have accomodated this if they thought it was important.

03 - Yes. University Policy. We were told we did not need it since we were not going to teach in New Brunswick.

04 - Yes. Program Policy: Two year duration which the university could not be able to include student teaching in their schedule. They would make us spend longer time.

05 - Yes. Cultural Communication-which may be difficult. CBIE/FME requirement did not include student teaching. The terms of contract were not examined properly.

06 - Yes. University Policy. They are training foreigners. The paper is useless in Canada.

07 - Yes. School Policy or Decision not to include or make an effort to provide the opportunity. My VISA says students may not take up paid not-paid employment in Canada. Also, we may run into problems teaching because of the lack of previous practical experience.

08 - University Policy. Did not allow students to take certification courses that qualify us to enter classroom here to teach. Provincial Law - Does not permit those from outside of Canada (Province) to teach in their own schools because there are some courses we the foreigners, did not take.

09 - Yes. Time limitation. Courses were jammed together to fill up time. Culture limitation Canadian kids may not be happy with Nigerian teaching. It would be recommended that student teachers go back to teach in Nigeria.

10 - No. I am not aware of any regulation and have not thought about it.

11 - (Yes, I think so) Probably the authorities thought we were not to be certified by New Brunswick.

12 - Yes. Maybe University Regulation- No. Provision in the contract for this as far as I know pressed for actual student practice. Provincial law. Employment law. Displacing workers.

13 - Yes. Immigration. Lack of CBIE and Department of Education/University negotiation for that. This falls back to FME.

Appendix

E.05

Program Thrust and Focus

TABLE 19

X^2 TEST OF TECHNOLOGY AREA LENDING ITSELF READILY TO TEACHING AT SECONDARY SCHOOL LEVEL IN NIGERIA.

GROUPS	S/A/A	U	D/SD
UMAN	61.11	5.56	33.33
UNB	38.46	7.69	53.85

X^2 (2, N = 31) = 1.561, p <= 0.4582

Your technology area lends itself to teaching at the secondary school level in Nigeria. Comment on your rating.

08: UMAN

01 - I Agree (A). Most of the thingss like machine shop are applicable in Nigerian secondary school situations.

02 - I agree (A). In Nigeria, we need to improve the municipal services roads so I feel civil technology lends itself to teaching at high school level especially some aspects of road maintenance and construction. My technology area could be used for teaching in school or working in the industry.

03 - I disagree (D). Because such programs are not available. It may be included in the new scheme.

04 - I agree (A). This area should be taught suitably at this level. Apply visuals to teach and explain.

05 - I agree (A). Most courses are related in environmental planning for teaching at that level.

06 - I am undecided (U). It is more applicable at technical/ trade school or polytechnics.

07 - With electronics background coupled with the teaching principles I could pass on these concepts in electronics.

08 - I agree (A). Within my technology program I have subjects like mathematics and physics that can be taught at that level. Technical schools are mostly appropriate for this area.

09 - I disagree (D). Even though the skills and knowledge were pertinent, they do not have agriculture at that level. It is done at college of Agriculture.

10 - I strongly agree (SA). It is non-academic oriented which is universal and can be applicable anywhere in the world.

11 - I agree (A). I feel I am competent with the little I know.

12 - I disagree (D). It is most applicable in a technology College; to teach at secondary school level will be a waste of my technology skills. In the technology school, they will get everything out of me.

13 - I strongly agree (SA). They do chemistry in Nigerian secondary schools.

14 - I agree (A). Secondary school or may be higher. Most of the courses at technology level are not appropriate for secondary school. Any institution higher than secondary school would be a good change (chance?).

15 - I agree (A). From secondary school upwards. It is a flexible area ranging from chemistry, physics to mathematics.

16 - I disagree (D). I don't see any school at that level teaching surveying.

17 - I disagree (D). I do not think the technology program prepared me to be an efficient teacher as such.

18 - I disagree (D). Not at secondary school level. There is a special school where x-ray is taught.

09: UNB

01 - I am undecided (U). It is an important area but the necessary components of computer system will be hard to obtain in Nigeria. If I get a position as instructor in industry, it will be applicable.

02 - I agree (A). I can teach technical drawing and building science.

03 - I agree (A). I can teach in the area of sciences like physics, chemistry, biology or mathematics.

04 - I disagree (D). The core program is something higher than the level of secondary schools. It is more appropriate for me to teach at college of technology than in secondary school.

05 - I disagree (D). With civil engineering technology, the only place I can be very useful is the community college.

06 - I agree (A). We have a content base to function at that level.

07 - I strongly agree (SA). The content is available because the teacher has adequate knowledge to teach that.

08 - I am undecided (U). Computers are not available at the seondary but school levelwould be readily teachable at the college level.

09 - I strongly agree (SA). Because of the technical electives taken at the university and experience in teaching.

10 - I strongly disagree (SD). Forestry is not offered in secondary school. May consider agriculture but that is not the same.

11 - I disagree (D). The level of programming I have done and experienced could be better utilized in higher level institution like colleges or universities than secondary schools.

12 - I disagree (D). The main core of my technology Program is not offered in secondary school. Related courses like Physics and Mathematics are what I can teach at the secondary school level. The college practical component was not a component of the B.Ed. Program.

13 - I disagree (D). Most courses I took at the community college were not advanced enough for a high school level. One with a B.SC. (first degree) in the area of specialty is the only satisfactory qualification to teach at secondary school level. In secondary school, the theoretical aspects of my technology is emphasized

TABLE &X^2 TEST OF SKILLS AND KNOWLEDGE GAINED IN THE B.ED PROGRAM BEING EQUALLY APPLICABLE IN SCHOOL AS IN INDUSTRY.

GROUPS	S/A/A	U	D/SD
UMAN	33.33	11.11	55.55
UNB	53.85	7.69	38.46

X^2 (2, N = 31) = 1.304, p <= 0.5209

while the college is practice - oriented.

Appendix K

E.06

Occupational Teacher Education

TABLE 21

X^2 TEST OF RECRUITMENT OF COMMUNITY COLLEGE DIPLOMA BEING A GOOD CONCEPT FOR THIS TEACHER EDUCATION PROGRAM.

GROUPS	YES	NO.
UMAN	77.78	22.22
UNB	53.85	46.14

X^2 (2, N = 31) = 1.978, p <= 0.1596

Is the recruitment of community college graduates with diploma being/not being a good concept for this vocational teacher education program? State your reasons.

08: UMAN

01 -Yes. They have a knowledge of their own field. Here they are to acquire methodologies to deliver the knowledge, to get industry involved in education to structure programs and courses.

02 - Yes. The technology are practice-oriented as opposed to the theoretical university work. They have the practical work experience. So they have less time to graduate.

03 - Yes. It provides opportunity for a B.Ed. and teaching skills. But no because fresh graduates do not have the industrial practical experience.

04 - Yes. They have a knowledge of their own areas of technology and with a B.Ed. They can teach in this area. It should be a rule (must) to have a B.Tech. and/or diploma/degree to come into the program. Then those who have the B.Ed. would be more effective both in industry and in school.

05 - No. They need more time to develop confidence and competence in their vocational fields if they are to be effective instructors.

06 - Yes. It gives them the qualification to teach their vocational areas. Usually many people are afraid of going into classroom teaching. We are not afraid anymore.

07 - Yes. Student teachers have a suitable background in their vocational areas. They are here to acquire teaching skills. They should be given adequate practice experience in teaching and industrial placements before they are allowed to enter the program.

08 - Yes. It is less expensive for the two years in the college. They have diversified backgrounds.

09 - Yes. They have the academic background (preparation) to enable them to complete the B.Ed. for teaching.

10 - Yes. They have a background in their field of interest which gives them a sound basis for success when they enter the program.

11 - No. They do not have enough work experience. I thought I would be able to take courses in my area.

12 - Yes. I feel they have the basic skills required for this program. They have the technological backing of this teacher training program. If I did not have my diploma, I would not have anything to teach in particular. It is a good feeling for a teacher to master his-subject area in order to have adequate control of his class.

13- Yes. They have some background already in related technology areas. Training for them therefore is less expensive than for those who do not.

14 - Yes. The teacher education is supposed to provide avenue for the technologists to impart to others the knowledge they have acquired. In terms of technical and academic qualification. Yes.

15 - No. If I am looking at vocational high schools, I would say it should be tradesmen e.g. Pacific Vocational In-

stitute graduates (journeymen). Technologists are mostly theorists. In school we rush to complete course work, in industry acquire experience and practice.

16 - Yes. They are knowledgeable in their technical fields and now they are to acquire teaching skills in order to transfer their knowledge to the future generation.

17 - Yes. The vocational area requires a technical backing unless there is some in the university. I think they have this background.

18 - No. Those with diploma are not the only qualified. High school leavers are also qualified. Some student with college diploma may not be interested in teaching.

09: UNB

01 - No. The way the program is structured is geared towards those who have had both teaching and industrial experience. College graduates tend to have hope of going to work in industry or continue in school.

02 - Yes. But the time is too long. Nigeria has wasted too much money in the program. They should only acquire methodologies for teaching their technology areas (which would be within a shorter time).

03 - Yes. Because it is very hard/difficult to get Nigerians with these various backgrounds except in these colleges of technology.

04 - No. you have a feeling of being above vocational education. They should have recruited vocational teachers from Nigeria into the program,

05 - Yes. They have the basic knowledge of what technology is all about and with sufficient knowledge in teaching they can be good teachers in their own fields.

06 - Yes. The program is for vocational teachers and the students have the technical knowledge. Government saves money in not having to train from the scratch.

07 - No. There are people who came from High school (Grade 12) or less and they spend the same time for the same number of credit hours.

08 - No. If you want to have capable vocational teachers, you need people with experience in teaching or work in industry not those straight from college.

09 - Yes. The way the program is arranged (structured) enables students to extend knowledge in their field and to gain knowledge in education program.

10 - No. They need practical experience actively employed in their own field for a certain number of years to be suitable candidates for this program.

11 - Yes. They have college diplomas. All the graduates really need are methods to communicate/apply their knowledge.

12 - Yes. They have the necessary technical background. They need a program that will give them methods to communicate that knowledge while at the same time strengthen their bases of knowledge in that field.

13 - No. Wasting more time. More difficult for the student. Students should go right from high school into university vocational teacher program.

TABLE E.61

X^2 TEST OF PERCEIVED SATISFACTION WITH THE 24 - MONTH SCHEDULE FOR THE B.ED PROGRAM.

GROUPS	YES	NO.
UMAN	55.56	44.44
UNB	38.46	61.54

X^2 (2, N = 31) = 0.883, p <= 0.3473

Are you satisfied with the 24-month schedule for this B.Ed program? Why?

08: UMAN

01 - No It should last for more years. Great pressure is put on students.

02 - No. No. break. We need some holidays/rest.

03 - Yes. I would not want to spend any more than two years for B. Ed. after my college diploma.

04 - Yes. I could handle it even though it was vwery demanding.

05 - Yes. Gives me a degree in a short duration of time. I hope to get a job with it.

06 - Yes. I am able to go out on time.

07 - No. Very hard on the students. no rest.

08 - No. Too tight. Coping with problem is very strenuous.

09 - No. Students like anyone else need a break from academic activitiies for non-academic concerns.

10 - Yes. Because it limits the time students have to spend for schooling and saves money for the sponsor (government). The two years gives students an opportunity for a degree.

11 - Yes. It was good to keep me busy. I like being busy.

12 - Yes. I really wanted to get the hell out of this place.

13 - Yes. But it was intensive and no holidays.

14 - Yes. Saves time, money and resources.

15 - No. The courses were too intensive. Some of the courses would have been eliminated for us. Some would not help us as students trained for work in Nigeria. Besides some were duplicated.

16 - Yes. I was able to accomplish what I was supposed to do.

17 - No. Not satisfied. Too demanding on students.

18 - No. Too hasty. No flexible conditions. B.Ed. is not a two year program per se.

09: UNB

01 - No. Four years compressed to two. It was too concentrated which was too hard on the students. That program could have been run in a shorter time effectively if the irrelevant and unnecessary courses were eliminated. Industrial placement and student teaching would take/ occupy their slots. Due to the concentration we could not digest what we had to learn.

02 - No. Time consuming. Money wasted. Methodology only would take less. The extra time was for money only.

03 - Yes. If it were more than two years it would not be good.

04 - No. The program is too condensed. No interships. There is no need for such a program where there is no time to maximize experiences.

05 - No. But it has provided me with some of the knowledge I need to be a teacher. I could use it for further education.

06 - No. Too intensive.

07 - Yes. I think there is no other ways to do an adequate program like this in less than two years.

08 - Yes. Saves Nigeria money. Cost effectiveness. But it was a very busy schedule for students.

09 - No. It should be longer to reduce the work load during the summer and intercession.

10 - No. Too much to absord within a short period of time.

11- Yes. Given that we are not involved in practice internship we did not need any longer time. Besides that period helps to accelerate the rate of mass production of qualified teachers.

12 - Yes. It made it possible to complete the program in a shorter period.

13 - No. It is a waste of time for one who has gone through a technology program for three years.

What advantages and disadvantages do you see in this 24-month teacher education?

08: UMAN

01 - Complete a B.Ed. requirement in less number of years. Too intensive (crowded). We seem to leave out some things in some subjects.

02 - Limited the period from 48 to 24 months. The way the program was organized was not just suitable. I felt something was wrong somewhere.

03 - Forced students to learn organization (time budgeting), set goals, structure own program to meet timelines. Structure was too rigid. Too little room for flexibility.

04 - Teaches me to handle pressure and stress that may yield high productivity. Teaches the importance of adequate scheduling and supervision. Time is too short. Inadequate monitoring of the program. Lack of mastery of content. Had no time to allow the ideas to sink in.

05 - Got a B.Ed. in a short time. Time was adequate. Too short a time regarding health reasons. Very limited time to socialize. No students input.

06 - Able to study throughout the year. Motivated together as a group. Promoted hard work in the program. Not enough time to socialize. No opportunity to travel.

07 - Saves a lot of money: living allowance and fees. Produce more teachers within a short time. Not enough time to master the course content. Everything was crashed. No breathing time for student teaching.

08 - Complete program early. Gives the idea of what it takes to push for specified timeline. We now know what burnt out is. When one knows how to work hard, it is good. No opportunity to see beyond school work. Social activities cut to minimum. There was time frame to fight. Student teaching at awkward time, and shorter duration.

09 - Permitted achievement of technical knowledge. Acquired B.Ed. in a short time. Overloading academic work in the short duration.

10 - Saves students time in getting a degree. Saves money for government. Rigid. Too short for some students.

11 - I am kept busy. I am not bored. As a foreign student, I cannot work in Canada and I had no money to travel. Got a degree through early completion. Worn out after school year. Not enough time to digest content. It boils down to just completing credit hours for the degree.

12 - It allowed me to complete this program and think of the next step. For us foreign students, it allowed us to stay out of societal problems. Gave me something to do during the summer when I had no money for anything or to run around. Course overload. Very little could be mastered and learned within the period. Very stressful.

13 - B.Ed. completed in short period. Allowed opportunity to apply in real situation what theories I had learned. Some courses were relevant. Used examples and made references I was not familiar with. Limited somehow, not complete choice to take certain courses. No opportunity to work at own pace.

14 - Time saving to student for a degree, to sponsor for qualified (trained) personnel. Saved money money to the sponsor I would rather be pressured the way I was. For 108 credit hours it would have cost more if it were for three years. Most of the courses in the program seemed rushed because of the time constraints e.g. 4 weeks for student teaching which should at least be to six. Lack of details in most of the courses. Time of scheduling the practice placement e.g. teaching in April to June caused us to go to classroom at about the examination time.

15 - Complete degree in a short time. Saves students from receiving the little allowance of $510 despite increased cost of living. Too intensive. Sometimes boring.

16 - Got the job done. Accomplished what they thought I would not. Too intensive. No holidays. My idea was that I would still be doing some courses in engineering program.

17 - Caused students to work hard. It was competitive. Too intensive. Did not allow students time for anything else other than book work.

18 - Nil (no advantages). Does not take student differences into account. Program components and activities were provided in a hasty fashion which meant they were just content with carrying them out and cared more for the process and not the quality of the product. I am not saying you can get a product without the process but the process should lay a good foundation. The program was very rushed and process-centred. Are the administration satisfied with the product of the program and

the quality of the product is what matters to Nigeria the sponsor. We defined the 24 months and that was it.

09: UNB

01 - The duration was long enough to cover the program requirements adequately with both practices. May have caused some deterioratioon of the techinical knowledge in the technical area and the profession.

02 - Nil. Lack of teaching practice. Lack of industrial placement.

03 - Short duration to complete a degree quickly. No time to rest. We kept going to school. Could not function well when you are in school all the time.

04 - Early graduation provided time to plan for further studies. Being condensed, it allowed me to complete the requirements. Too stressful. Lack of adequate knowledge because of the condensed nature of the program.

05 - Gave me the idea of how I could plan my future. provide adequate foundations. The program schedule was too tight. It did not give sufficient time to get adequate knowledge in the technical area in two years.

06 - Obtain a B.Ed.in a short time. Overload of work to students. Did not allow time for social and cultural interaction with the community. All work and no play makes Jack a dull boy.

07 - Gained teaching techniques. Fast track B.Ed. Program saves money to government. Too much perssure. Stressful. Some courses had no standard. Students took whatever courses they wanted just to get the required credit hours for a degree, that's all.

08 - Cost efficiency for the B.Ed. Too many irrelevant courses.Should have been one year after B.Ed. and Industrial experience perhaps.

09 - Complete B.Ed. in 2 years instead of 4 years. There was greater courseload than regular students would take.

10 - Opportunity to acquire self esteem: the B.Ed. degree concentrated on the important part. Too intense/ stressful. Grade-oriented credit hours rather than knowledge mastery oriented. Acquisition of knowledge was adversely affected.

11 - Short duration for B.Ed. Gave students adequate exposure to teaching their field of specialization. Did not provide for internship in either work or teaching.

12 - It kept students busy for 11 of 12 months yearly to complete program in a shorter time. Great stress imposed on students because they felt they had to get all done within 24 months. Inadequate provision for book allowance. We went through 2 years in one year. Summer should have complete book allowance.

13 - Got a degree in a university. Waste of time to most students. It was like confusion set in for most of us

Suggest recommendations to improve the program.

08: UMAN

01 - Get rid of intermedians like coordinators and administrative agents. Deal directly with the students to reduce cost.

02 - I will like to see our government conduct a follow up study. Coordinators should provide adequate information to dtudents. Lend more helping hands to students in problems by providing some funds to those students who are in real need like moving from one accomodation to another. Students should have the option to visit Nigeria for holidays, and cost paid for by sponsor not sstudents.

03 - Change the time for student teaching. Students should be allowed to take courses in their own area of technology specialty.

04 - Extend entire program period by one year. Carry out a more effective industrial experience not a rushed one in terms of organization and placement.

05 - Nigerian government in futre should follow up the program implementation.

06 - CBIE and FME should communicate effectively between each other and with students so that we have adequate information: Right now I do not know what else I am doing in the immediate future.

07 - Remove unrelated relevant courses like Social Foundations of Education and School Organization. Extend student teaching period. Orient students properly at the beginning of the program. Give allowance for students' inputs.

08 - Length of program should be extended to accomodate student differences. Increase living allowance so that students can at least travel outside of Canada. Improve administration and deal directly with students. Allow students to take at least an elective in their areas.

09 - Increase the duration to make it longer. Students major and specialization should be the technology area.

10 - Provide more flexibility to sstudents in terms of their choices in course selection. One does not have to take courses and electives simply because the structure of the program mandates it. That affects students grades adversely.

11 - Allow flexibility to permit greater and wider field of studies (selection). Sit down with students and find out what each student would like to do, structure the program and then help him/her choose courses accordingly. Do not treat students like kids as these administrators like to do- "Master and boy" relationship, no input from students.

12 - Make sure that students admitted to this program are actually those who really wish to be technical teachers before he/she is accepted in for this program.

13 - The program should have continuous monitoring and evaluation from time to time to see what should be done differently.

14 - Allow and encourage students to use courses from their area of technology to fill the place for the required second teachable as it stands now. They should not be limited to other academic areas. The B.Ed. should be seen as an education to acquire the methodology of teaching.

15 - Review the program management. The administrative agency should work with the education attache in the Nigerian High Commission. There should be students input for pragram review. Carry out on-going evaluation. Or structure an individually sponsored program managed by Nigerian high Commission not an agency contracted program. If I go to Immigration with a letter from the High Commission I would have greater respect. The FME should have active and not dormant roole in the administration. We felt like being dumped (forgotten) here. We should train for degree in Technology area.

16 - There should be more student consultation. We are an experimental group. It will take about 5 to 10 years to find out how best to run the program.

17 - Provide students with more options in the electives to make program a bit flexible.

18 - Both countries should examine the available programs in Canada and match request from Nigeria to come up with a well designed program with well defined goals and objectives of what Nigerian wants, so that students do not have to pass through these conflicts in career choices and planning. The idea was good but the implementation was very bad.

09: UNB

01 - Give more advance credit for what work students have completed already. Provide teaching practice and industrial experience.

02 - Would not accept UNB for this teacher training because of the lack of practice experience in both teaching and industry.

03 - Provide student counseling on course selection and scheduling.

04 - All B.Ed. programs should be centred on shopwork like welding, metal work and plumbing.

05 - We should have had a straight B.Sc. (B.Tech.) B. Ed. program.

06 - Provide alternatives technical electives of equal quality and strength.

07 - Ensure that the university adapts to the needs of the country that enters into a contract with them not to delete items because of local politics.

08 - Include student teaching and industrial placement we should go through B.Tech. and then go for education degree (certification course) for one year.

09 - Allow students to practice in Nigeria to see if Canadian education is useful.

10 - increase monthly allowance and luggage allowance to cover transportation of at least books home. CBIE should communicate with the students on students problems and difficulties before the last decision is made on sending student home.

11 - Give students internships training..

12. I think from academic point of view, industrial placement and practical student teaching are vital components of the program even if they are for a short time (duration).

13 - We should go through the same program as do Canadian and Kenyons students.

Make a statement in one paragraph exressing your feelings **about the** NTTTP program in Canada as you know it.

08: UMAN

01 - In general, the program was good. It needs improvement in the way the program is administered. Most of the decisions were made without taking the interest of the students involved into consideration e.g. students allowance and cost of living.

02 - I will like tosee our government fololow up and evaluate the program continuously.

03 - The program is like a new concept developing which should be improved with time. Many other departments should be encouraged to work in conjunction with Education Faculty so that students gain more in their area of specialty. These departments should be informed and be part of such arrangements.

04 - It was alright. It is worth it in the sense that I have a B.Ed.

05 - It is a "junk" program. Due to how the program was structured, it did not meet the students' needs regarding teaching in their technical field. It did not give me additional information in my field.

06 - As it is now, it has limited use for Nigeria only the technical area is good. We can only adapt about half of the coursework to our area. Teaching methodology was alright.

07 - Was good. Has a lot of room for improvements.

08 - it was a success because the students involved made it a success.

09 - Overall, I think the program was successful. It should meet the teechnical education needs for Nigeria. It was well administered.

10 - It was a very rewarding experience highly recommended to the student and to the government.

11 - It was very stressful because of the kind of training which was quite different from what I was used to. Secondly, it was not what I intended to do at this particular time. I was not motivated.

12 - I think it is a "reap off" against Nigerian government by the contract agents. They are not giving Nigeria its money's worth. Students were not paid for what our work is work.

13 - It was a good and worthwhile experience but it was energy-sapping because of its intensity.

14 - The NTTTP was a well conceived idea of training and encouraging technologists to teach in their area. But the purpose of that program was defeated by the FME because the FME does not seem to have a plan for nor does it care whether or not the student teachers teach at all. FME does not keep account of, nor monitor student studies, return to Nigeria or anything else.

15 - From management point of view, it was a massive or colossal waste of nigerian resources. The expenditure was not accoounted for and students in general felt neglected most of the time. In fact, as far as the administration of the program is concerned, it was another business venture for CBIE, the universities and other administrators.

16 - The system itself had some good intentions, but the way CBIE implemented the program was not reasonable.

17 - Very worthwhile. I do not care what the pluses or minuses were, I would do it over again.

18 - NTTTP was a waste of time for the students and a waste of money for the government that sponsored it in that it did not reflect the true needs of the students, did not plan for, recognize or emphasize the true needs of Nigeria and will not even account for it.

09: UNB

01 - There was a good thought and concept behind it but was ill implemented. I have been prepared to teach but I do not know what I am going to teach.

02 - It was alright, but would have been better if there was a careful planning and monitoring of the program. No one seemed to think of that from the Nigerian end.

03 - The program was good. We have been privileged to get away with very many things. You can drop out of a course if it becomes unbearably difficult.

04 - It was a mistake. It was too urgently conceived and poorly implemented. I feel in the future more time should be spent in analysing the advantages and disadvantages, the pros and cons of the program.

05 - The major (central) aim is really good. The way the program was handled expecially by the Federal ministry of Education reduced its effectiveness.

06 - It was an expensive way of giving us the paper which in itself carried no quality.

07 - The program in general was a success. The students might not have got what the Nigerians back home wanted but they have developed the spirit and perhaps the motivation to modify their learning skills so that they can improve technical teaching. The money Nigeria spent for the program was not a waste if students return home.

08 - If we were given the chance to do a B.Tech., it could have been done successfully in one or two years in Nigeria.

09 - Let the Nigerian students come home and work in their area of specialty to see if the government benefits from the program or not. If the government does not benefit, they should cancel the program.

10 - The general intention of the program was good, but it was poorly managed by CBIE as the contract agency because if they had told the university what they wanted, the university would have done it.

11 - With the removal of internships, there was something important missing. But I think the program was very beneficial to me in the sense that I not only get a degree in Education (B.Ed.) but I am in a better position now to teach at advanced level due to the fact that I have gained advanced knowledge considerably in my area of specialty.

12 - I think the concept of the technical teacher program was good. But I think the organization, coordination and the administration of the program and in terms of curriculum were not adequately done.

13 - I feel that the program was a failure in that they seemed to train the wrong set of people because most of us do not seem to consider teaching as a career.